Authoritarian Regime Types, Political and Socio-Economic Outcomes, and Democratic Survival

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Summary

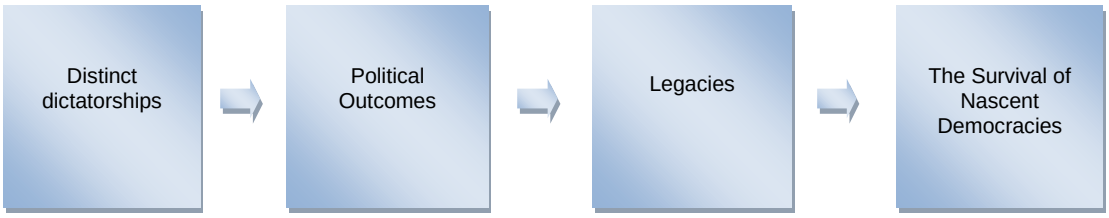
This dissertation addresses the question of which factors shape outcomes in autocratic regimes, and, in turn, what influences the survival of democratic regimes in light of their authoritarian legacies. I argue that regimes which are able to curtail the dictator's powers, compared to uncontested autocracies, are associated with better institutional and socio-economic outcomes during the authoritarian rule as well as a higher survival rate upon transition to democracy. The first two papers of this dissertation provide evidence that regimes where the leader's power is constrained either by an organised opposition or by a strong regime party are more likely to have an independent judiciary and experience higher levels of health expenditure. A third paper provides evidence that the mechanisms which protect contested autocracies also lay the foundation for an institutional framework in which the subsequent democratic regimes are more likely to survive. This dissertation offers a mixed-methods approach to confirm the three arguments. In conclusion, only with checks and balances in place, those in power can stay humble, take care of people, and promote good governance, compared to the ruler with unlimited power.

1. INTRODUCTION

This dissertation addresses the question of which factors shape outcomes in autocratic regimes, which, in turn, influence the survival of democratic regimes in light of their authoritarian legacies. To explain the difference in the lifespan of young democracies, scholars have compiled a list of causal factors and their mechanisms that affect these democracies. These seminal works, however, ignored the influence of antecedent authoritarian rule on these explanatory factors. Although many studies have explored the lasting effects of preceding authoritarian regimes on political dynamics in new democracies, little is known about their effect on the survival of these democracies. To fill this research gap, the present dissertation combines two dimensions of research and explores how the legacy of the previous authoritarian regime influences the survival of subsequent democracies.

Many nascent democracies have emerged from authoritarian regimes, the influence of which shapes their institutions, party politics, and social structure. It is thus reasonable to infer that political outcomes during the period of autocratic rule affect the survival of ensuing democracies. Furthermore, scholars have analysed how the political outcomes, shaped by distinct dictatorships, affect autocratic survival (Boix and Svolik 2013; Gandhi 2008; Gandhi and Przeworski 2007; Levitsky and Way 2012; Magaloni 2008; Roberts 2015; Slater and Wong 2013; Wright and Escribà-Folch 2012). We consider that after the democratisation of an authoritarian regime, these political outcomes become divergent legacies, which, in turn, determine the longevity of ensuing democracies. Figure 1 presents the framework of my basic ideas.

Figure 1 Framework for Analysing the Survival of Nascent Democracies



Source: the author.

Existing research has explored the lasting effects of preceding authoritarian regimes on new democracies in terms of party politics (Dinas and Northmore-Ball 2020; Frantz and Geddes 2016; Grzymala-Busse 2002, 2006, 2007; Hicken and Kuhonta 2011; Kitschelt 1995; Riedl 2014), which relates to democratic survival. Scholars have associated post-authoritarian party politics with the following: (1) how preceding dictators shape party politics, and how these party configurations are inherited by subsequent democracies (Frantz and Geddes 2016; Hicken and Kuhonta 2011), and (2) how dictators dominate or develop distinct strategies for political transition (Grzymala-Busse 2006; Kitschelt 1995; Riedl 2014).

Here, two points merit further discussion. First, no comparative study other than Grzymala-Busse (2007) has examined the interplay between authoritarian successor parties (ASPs), defined as former ruling parties or parties newly created by high-level authoritarian incumbents in preceding ruling parties in response to democratic transitions (Loxton 2015: 158-159), and their opponents. For example, when a dictator seeks to co-opt local elites, dominating transitional politics and limiting electoral competition, the high barrier to entry during the transition period causes the opposition to cooperate, which leads to higher party system institutionalisation (Riedl 2014). This argument, however, fails to explain why these ‘anti-incumbent alliances’

do not lose the incentive to remain united even after winning the battle. A possible explanation is that there is no room for new ruling parties to be divided because ASPs are still veto players. In other words, ASPs achieving significant success in post-authoritarian politics can prevent fragmentation of the new ruling parties, thus reducing the likelihood of an unstable party system.

Second, these seminal works introduce the concept of the hegemonic status of a dictator during democratic transitions into the study of the determinants of post-authoritarian party politics. The origin of the dictator's dominant status, however, remains unclear. This is likely to be attributed to the fact that the dictator and his party possess and inherit substantial antecedent political strengths and resources. Therefore, this dissertation argues that the resources that old regime elites inherit determine the performance of the ASPs, which affects the post-authoritarian party system.

Beyond the scope of party politics, alternative causal relationships are also possible. An independent judiciary, for example, aims to solve the incumbent leader's commitment problems, thus laying a solid foundation for democratic durability (Reenock et al. 2013). That is, an independent judiciary has a monitoring function, helping the masses in the absence of information to observe the defection of leaders from agreements (Carrubba 2005), and a coordination function, allowing individuals to mobilise and challenge government action, raising the cost of transgression (Weingast 1997). An independent judiciary is also likely to deter executives from using a crisis situation as an opportunity to gain power by buttressing the political power of other regime elites and the opposition against executive incursions (Gibler

and Randazzo 2011). Thus, independent judiciaries decrease the likelihood of regime reversions toward authoritarianism.

Since a democracy inherits legal institutions from its preceding authoritarian regime, this dissertation examines the origin of judicial independence in authoritarian regimes. This topic, except for a few seminal works (Epperly 2017; Ríos-Figueroa and Aguilar 2018), has not been considered comparatively.

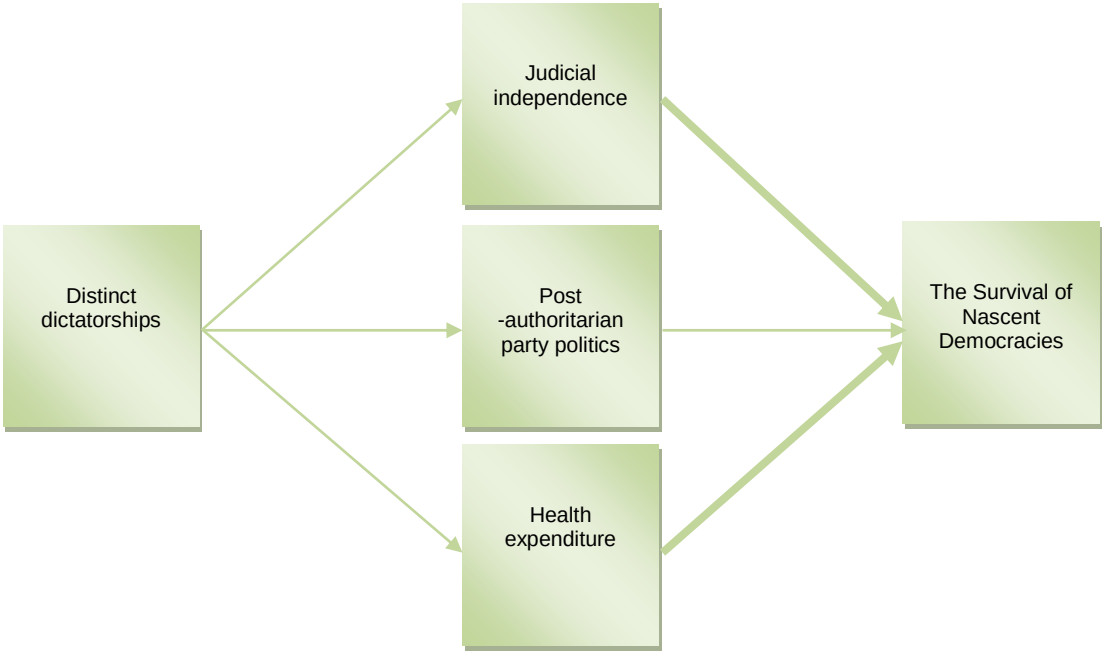
Democratic stability is enhanced when the government is held accountable to popular demands, especially through the provision of economic opportunities and public goods (Graham et al. 2017), partly because greater public goods provision leads to a more engaged and supportive civil society. Existing research has argued that expenditure on healthcare provision significantly improves population health status (Alisa et al. 2014; Nixon and Ulmann 2006; Novignon et al. 2012), which encourages political participation of citizens (Burden et al. 2017; Mattila and Papageorgiou 2017; Mattila et al. 2013). Participation in democratic decision-making processes, in turn, helps citizens strengthen their democratic political attitudes (Quintelier and van Deth 2014).

Similar to the judicial institution, the current level of health expenditure (and thus the provision of health care) in democracies depends on the past levels in an authoritarian regime. To my knowledge, although recent research has examined the determinants of health expenditure from the perspective of political economy, such as political regime types, characteristics, and transitions (Bousmah et al. 2016; Kotera and Okada 2017); the ideology of governing parties, opposition parties, and the electorate (Bellido et al. 2019;

Datta 2020); fiscal decentralisation or regions with particular fiscal arrangements (Arends 2017; Prieto and Lago-Peñas 2014); women's political representation (Clayton and Zetterberg 2018; Mavisakalyan 2014), there is a lack of comparative studies on how governance types influence health expenditure and cross-national analyses of authoritarian regimes. Therefore, this dissertation examines the determinants of health expenditure in dictatorships.

In sum, this dissertation examines the determinants of judicial independence and health spending in dictatorships, both of which affect the longevity of succeeding democracies, and revisits the pathway that links preceding authoritarian regimes and post-authoritarian party politics to the survival of subsequent democracies. Figure 2 presents the research question.

Figure 2 The Research Question



Note: thick line: known relationship and not the primary focus of the dissertation; thin line: unknown relationship and the core research question.
Source: the author.

2. CONTESTED AND UNCONTESTED AUTOCRACIES

To analyse the dynamics of dictatorships, scholars have proposed multiple classifications of authoritarian regimes based on whether or not elections are held (Schedler 2006), the degree to which the ruling elite competes with the opposition in elections (Levitsky and Way 2010), the extent of social pluralism and organisational independence (Linz 2000), where the power is concentrated (Geddes et al. 2014), and whether the authoritarian parties are established (Wahman et al. 2013). However, apart from studying the effects of competitive and non-competitive authoritarianism on democratic survival (Shirah 2014), there is a lack of comparative work on types of authoritarian regimes and their association with political and socioeconomic outcomes, and, in turn, the durability of the subsequent democratic regimes. It is important to conduct research from this perspective since the institutional legacy is not based on the existence of competitive electoral experience alone. Thus, we need to choose an appropriate typology of authoritarianism for the analysis of autocratic governance.

The dissertation chose a binary classification of dictatorship, namely, contested and uncontested autocracies. An uncontested autocracy emerges when a dictator is able to amass enough power at the expense of other political actors and institutions and gets more loyal supporters through charismatic leadership or/and a strong divine or natural source, thus ruling uncontested. By contrast, a contested autocracy is one where a dictator faces at least some competition from actors inside or/and outside the ruling coalition or/and needs to enlarge the size of regime supporting groups to sustain its rule.

There are two key distinguishing features of this definition: power distribution and the pattern of legitimation. Power distribution refers to the extent to which power is shared between dictators and elites and whether the dictator's discretionary power is constrained by the opposition; in short, whether power is concentrated in the dictator. In some dictatorships, elites can prevent the dictator from changing the status quo to his advantage, while in others, power is highly concentrated in the dictator and his narrow group of supporters. Furthermore, in some autocratic regimes, the dictator is not likely to face any major threat from the opposition, thus acting in accordance with his wishes, while in others, there is a well-organised opposition that can impose constraints on the dictator's discretion.

A well-organised opposition constrains the actions of the dictator by either of the following two ways. The first is material concessions or rights concessions that the dictator decides to offer the opposition (Gandhi and Przeworski 2006). Dictators are less likely to respond to unorganised political opposition with concessions, given their activity is relatively easy and inexpensive to control with low levels of repression. On the other hand, dictators may respond to organised opposition groups with concessions to mollify their demands (Conrad 2011:1171). For example, when opposition power is concentrated in a single leader, as in Cambodia, more extensive negotiations between the incumbent and the opposition and the follow-up partisan electoral reforms are likely. In contrast, when opposition power cannot be coordinated and is dispersed across multiple actors, as in Malaysia, there tends to be only technical reforms to the electoral process (Ong 2018).

The second option comprises electoral fraud that the dictator commits

to abdicate responsibility. During elections, organised opposition groups present themselves as a compelling alternative government to the electorate (Howard and Roessler 2006). Thus, voters facing electoral fraud are likely to switch and support the organised opposition group that calls for civil disobedience when polarisation emerges along the dimension of regime-related issues, thus making it harder for authoritarian leaders to steal the elections (Magaloni 2010). For example, results from Russia's 83 regions during the 2011 parliamentary election suggest that local political competitiveness structures the mix of tools with which to manipulate the election: electoral fraud is more common in regions where unorganised opposition groups are incapable of developing widespread mobilisation, as authoritarian incumbents are less willing to invest in pro-regime patronage networks to mobilise supporters but utilise ballot stuffing or falsification to thwart opposition activity (Harvey 2016).

A strong regime party is able to assist ruling elites in curtailing the dictator's powers. This can happen in two ways. The first is based on the informational role of the party. The party can establish formal rules on intra-party transparency in terms of access to information, which reveals hidden secrets behind the actions of the dictator and breaks down the barriers to collective action by party elites (Gehlbach and Keefer 2011). The second is concerned with collective decision-making in these parties that prevents the dictator from using policy and patronage, independent of the ruling elites' preferences (Boix and Svolik 2013; Frantz and Ezrow 2011; Magaloni 2008). For example, the party can create institutionalised mechanisms for leadership succession, discouraging the dictator from

arbitrarily appointing his offspring as the successor (Bialer 1982). This elite-level constraint can also protect the independence of the central bank, thus preventing the dictator from engaging in an expansionary fiscal policy that can be used for patronage distribution (Bodea et al. 2019). Further, the party constrains the dictator's ability to arbitrarily dismiss cabinet ministers and has the final word on personnel administration, thus making credible power sharing more likely within the cabinet (Kroeger 2020).

Dominant party regimes are a major type of modern autocracy with a strong regime party. Geddes et al. (2014: 318) categorise autocracies based on 'whether control over policy, leadership selection, and the security apparatus is in the hands of a ruling party (dominant-party dictatorships), a royal family (monarchies), the military (rule by the military institution), or a narrower group centred on an individual dictator (personalist dictatorships)'. This classification is mainly based on the extent to which decision-making power is distributed within the ruling bloc. In dominant-party dictatorships, ruling party elites prevent the dictator from arbitrarily changing policy to his advantage as the party is a collective decision-making platform. A personalist leader may establish a ruling party. He and his narrow coalition, however, still can determine a potential successor (Brownlee 2007: 610-612) or engage in more extensive cabinet reshuffles with fewer constraints (Kroeger 2020), which marginalises the authoritarian party. A collective decision-making platform is identified in military dictatorships or monarchy if a ruling party is created to play such a role. However, because of the common interest of a junta or a royal family (Chin 2015; Nassif 2017), elites who have a place in decision-making but are not soldiers or royal members are incapable of

preventing the dictator from acting according to his wishes.

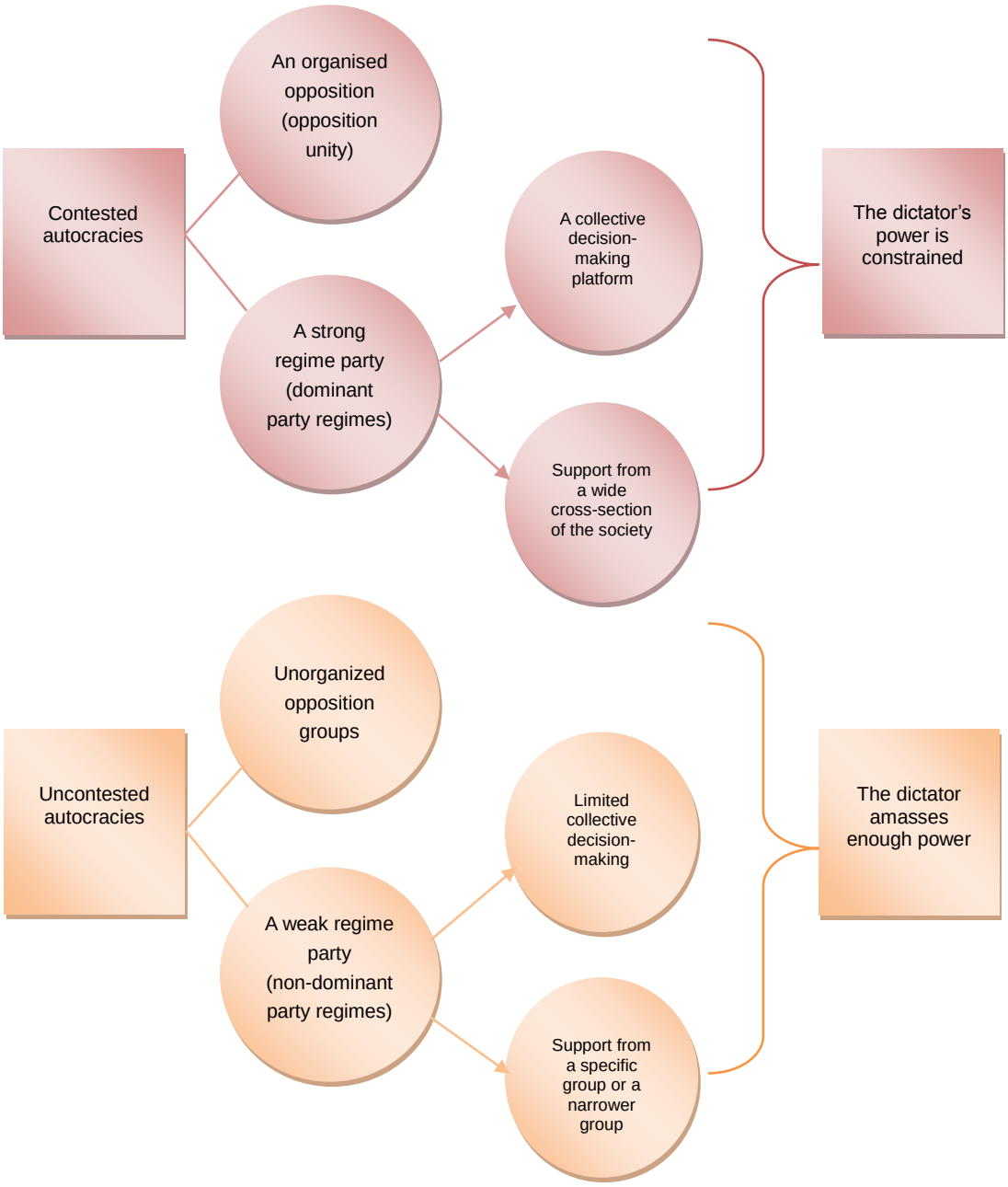
The pattern of legitimation defines a political regime type reflecting the type of obedience, the kind of administrative staff developed to guarantee it, and the mode of exercising authority. All rulers must develop legitimation strategies, such as rules, traditions or customs, regime performance, and charisma, to justify their right to rule. For example, some authoritarian regimes are not based on support from a specific social group and thus need to tie a large group of people to the regime elite, making politics more representative of different social groups. As the number of ruling elites whose consent is required to change the status quo increases, the decisions of dictators are constrained. Other dictators, however, rely on their charismatic leadership or a strong divine or natural source through which ordinary people believe their right to rule and obey them, thus legitimising their rule.

Dictatorships with a strong regime party, or borrowing Geddes et al.'s (2014: 318) term, dominant party regimes, are based on support from a wide cross-section of the society (Kailitz 2013). A personalist dictatorship, however, relies on charismatic leadership or extractive institutions through which rents could be distributed to followers, thus legitimising its rule based on a narrower group centred on a dictator (Hyden 2013). Military regimes and monarchies represent institutions with specific foundations, and their priority is to guard the common interest of a specific group such as soldiers or the royal family.

In sum, contested autocracies are regimes where the leader's power is constrained either by an organised opposition or a strong regime party, while the leaders in uncontested autocracies face fewer constraints from

unorganised opposition groups and a weak regime party.

Figure 3 Binary Classification of Dictatorship



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3. POLITICAL AND SOCIO-ECONOMIC OUTCOMES

This dissertation argues that regimes which are able to curtail the dictator's powers, compared to uncontested autocracies, are associated with better

institutional and socioeconomic outcomes during the authoritarian rule as well as a higher survival rate upon transition to democracy.

Regimes where the leader's power is constrained by either an organised opposition or a strong regime party are more likely to have an independent judiciary and experience higher levels of health expenditure. In particular, the dissertation considers the level of opposition unity as a de facto constraint on the dictator's discretion. The reasons behind this are as follows: first, it is less likely for dictators to use co-optation to differentiate political opposition; second, it is easier for this form of opposition politics to mobilise popular support, making it harder for the incumbent leaders to alter the electoral outcome through extensive vote buying; third, it reduces the dictator's dependency on aid that would help the opposition find evidence of electoral misconduct or mobilise public support. Opposition unity, therefore, compels authoritarian leaders to change their strategies of repression and patronage (strategy shifting effect), to not commit electoral fraud (alternative governing effect), and to stop antagonisation of donors attempting to implement democracy aid projects (donor antagonising effect), thus making it likely for leaders to win public support by playing the role of an independent judiciary in property rights protection. A solid foundation of judicial independence exerts a positive influence on the survival of succeeding democracies (Gibler and Randazzo 2011; Reenock et al. 2013).

Regimes where the dictator's power is constrained by a strong regime party are associated with a higher level of health expenditure. A strong regime party is based on support from a wide cross-section of the society. Instead of relying on a narrower supporting group, the dictator needs to

improve governance by broadening the constituencies, making public policy more encompassing, and prioritising public goods and services, benefiting a wider population. Thus, legitimation strategies under which more voices are involved in policymaking exert a positive influence on the dictator's willingness to increase health expenditure. This argument suggests that dictatorships where the leaders pay close attention to the public health outcomes on which the legitimate rule is based result in increasing public health expenditure. A country's health expenditure significantly improves its population health status, as well as other forms of public goods provisions, which will, in turn, reduce revolutionary threats to succeeding democracies.

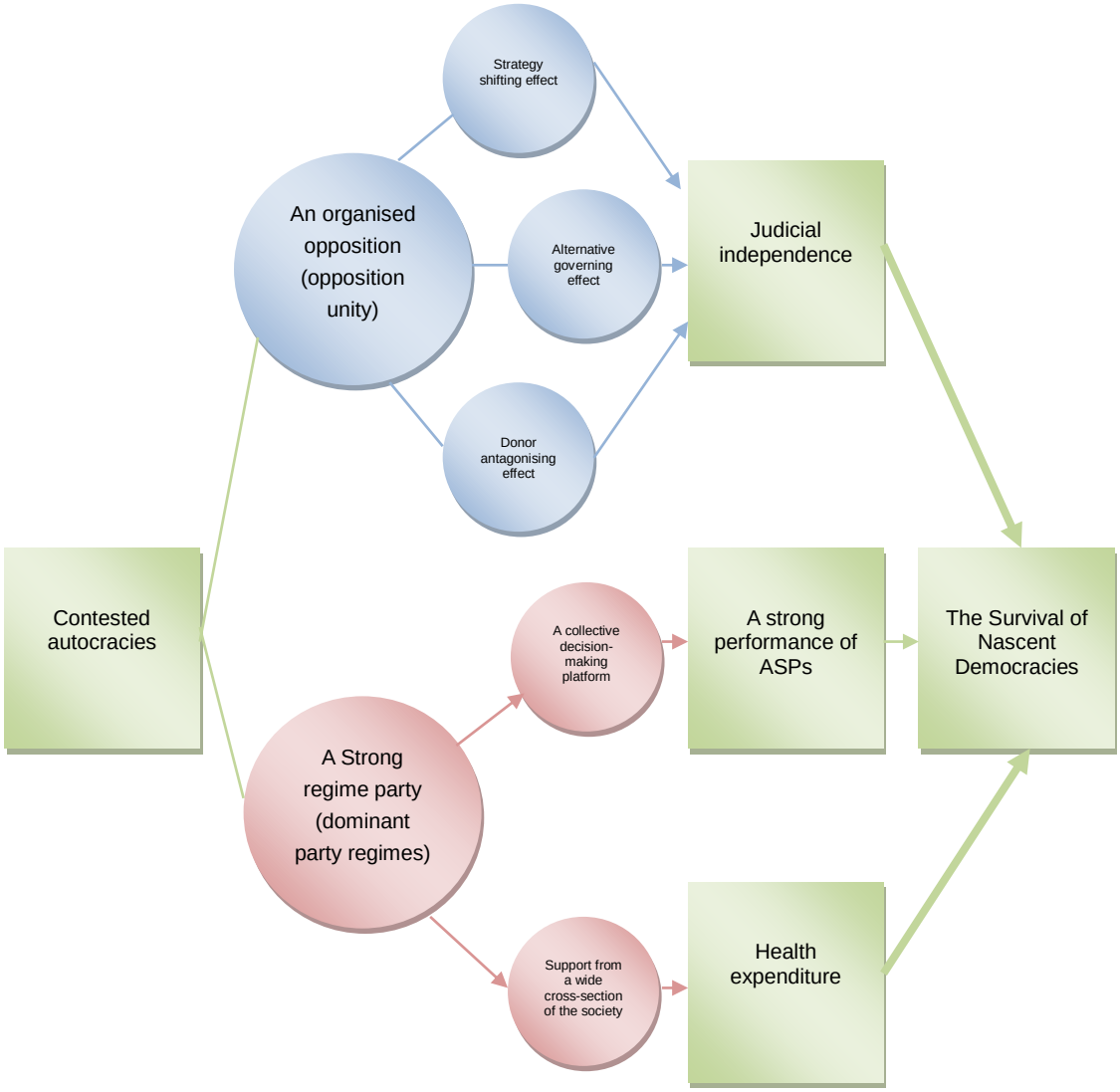
The mechanisms that protect contested autocracies also lay the foundation for an institutional framework in which the subsequent democratic regimes are more likely to survive. A strong regime party prevents the dictator from acting peremptorily, thus lowering the intention of elites to replace the existing institutions and encouraging them to create positive resources to ensure their and the party's survival. After democratisation of the authoritarian regime, the ASPs often inherit these valuable resources from their past autocratic regime. Thus, the ASPs which emerge from autocracies, where the leader's power was constrained by a strong regime party, achieve great success in post-authoritarian politics. The strong performance of the ASPs, on the one hand, can encourage cooperation within the opposition (if it wins in the democratic elections) or reduce fragmentation of the new ruling parties (if it emerges as a strong contender in the democratic elections), and on the other hand, can prevent the new ruling parties from crossing the line between democracy and authoritarianism, thus

reducing the risk of regime collapse.

In sum, this dissertation argues that leaders are likely to seek public support through the role of an independent judiciary in contested autocracies, where an organised opposition compels authoritarian leaders to change their strategies of repression and patronage, abdicate electoral fraud, and antagonise donors attempting to implement democracy aid projects. Further, leaders in contested autocracies with a strong regime party based on support from a wide cross-section of the society will pay closer attention to the population health status on which the legitimate rule is based and tend to increase health expenditure. Finally, a strong regime party leads to a strong performance of ASPs through valuable resources inherited from its past autocratic regime, which will, in turn, increase the stability of succeeding democratic regimes. Figure 4 combines the three core arguments.

This dissertation proceeds as follows: Chapter 2 attempts to answer why judicial independence varies across dictatorships, Chapter 3 examines the determinants of health expenditure in dictatorships, and Chapter 4 turns to an examination of regime survival following democratisation in light of post-authoritarian party politics. The conclusion is presented in Chapter 5.

Figure 4 Three Core Arguments



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Source: the author.

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A Credible Commitment to the Masses

How opposition unity affects judicial independence in authoritarian regimes with multiparty elections

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ABSTRACT

This paper examines why judicial independence varies across authoritarian regimes with multiparty elections. The two conventional wisdoms, political insurance theory and strategic pressure theory, offer contrasting interpretations, and so they remain inconsistent. This paper proposes a theory according to which credible commitment to the masses as the role of authoritarian judicial institutions and opposition unity as the causal factor that accounts for high levels of judicial independence. The theory hypothesizes that a more cohesive opposition increases the dictator's willingness to seek public support through the role of an independent judiciary in securing property rights in the case of mass defects. This study tests the hypotheses using data on dictatorships with multiparty elections between 1975 and 2010.

Keywords authoritarian regimes, judicial independence, multiparty elections, property rights, opposition unity

INTRODUCTION

Independent courts that can check and constrain the operations and power of the legislature and executive are essential for the fundamental principles of the rule of law and consolidation of democracy. Compared to democracies, there might be little to no variation in the levels of judicial independence across dictatorships because authoritarian institutions usually do not include a nominally independent judiciary. The literature, however, has demonstrated that dictators use judicial institutions to manage problems of social control and power-sharing (Barros 2002; Moustafa and Ginsburg 2008; Pereira 2005; Ríos-Figueroa and Aguilar 2018). Additionally, dictatorships exhibit considerable variations in their judicial independence (Epperly 2017). This variation begs the question: under what circumstances do authoritarian leaders tolerate an independent judiciary?

This paper presents a credible commitment to the masses as the role of authoritarian judicial institutions and opposition unity as the causal factor that accounts for high levels of judicial independence. Three mechanisms might explain the alleged link between opposition unity and the level of judicial independence. It argues that a more united opposition compels authoritarian leaders to change their strategies from dealing with the opposition to vie for popular support (strategy shifting effect), abdicate vote buying, which is expensive when the opposition presents itself as a credible alternative (alternative governing effect), and antagonize foreign donor's (e.g., the EU) direct investment in democracy promotion to help a united opposition indentify electoral misconduct or develop widespread public mobilization (donor antagonizing effect). It thus makes it likely for leaders to attempt to win public

support through the role of an independent judiciary securing property rights. In short, opposition unity has a positive impact on judicial independence.

I choose dictatorships with multiparty elections as the object of the study. Elections may serve an informational role (Gandhi and Lust-Okar 2009, 405) that provides regime incumbents, the masses, and foreign donors with information about opposition unity. It is closely associated with three mechanisms that link opposition unity to the level of judicial independence. First, the results of multiparty elections help regime incumbents identify their bases of support and opposition strongholds (Magaloni 2006). They may either target the latter, tying key opposition elites or societal groups to regime elites, or buy voters, which depends on whether the opposition joins together. Second, the extent to which the opposition is united in elections signals to the masses whether it can present itself as a compelling alternative government (Howard and Roessler 2006), thus determining the willingness of incumbents to alter the electoral outcome through extensive vote buying. Finally, elections provide foreign donors with information about opposition unity. A united opposition attracts aid that would decrease the incumbent's ability to engage in electoral manipulation (Bunce and Wolchik 2006).

My research speaks to several studies in comparative politics. First, this study provides one of the first cross-national empirical studies of judicial independence in the non-democratic context, supplementing single-country case studies on court systems in authoritarian regimes (Barros 2002; Pereira 2005; Ríos-Figueroa and Aguilar 2018). Second, this research adds to the richness of existing scholarship on the relationship between political competition and judicial independence, that is, political insurance theory

(Aydin 2013; Epperly 2017; Hanssen 2004; Helmke and Rosenbluth 2009; Ginsburg 2003; Finkel 2008; Randazzo et al. 2016; Stephenson 2003) and strategic pressure theory (Faisman and Popova 2013; Popova 2010; Randazzo et al. 2016; Rebolledo and Rosenbluth 2009, etc.), implying that opposition unity drives authoritarian leaders to increase the level of judicial independence to reduce the mobilization of the civilian population against incumbents. Finally, it offers a new explanation into why higher levels of political competition from a united opposition incentivize dictators to respect courts and contributes to the study of judicial independence in non-democracies (Epperly 2017).

A CREDIBLE COMMITMENT TO THE MASSES

Autocrats face two types of threats to their rule: those that emerge from within the ruling elite and those that come from within society (Gandhi and Przeworski 2007, 1280). To survive, the dictator must credibly commit to share power with the ruling elites and control the masses (Svolik 2012). Either of these is achieved using parties, organizations, or legislature, which are tools of power-sharing.

Judicial institutions also have the same power-sharing and controlling role (Moustafa and Ginsburg 2008). First, an impartial court provides a collective forum where intra-executive conflicts are solved, promoting a power-sharing pact between elites with divergent economic interests and cultural influences—or their own private army (Barros 2002). Second, the creation of multiple special jurisdictions provides elites with the opportunity to handle internal problems relevant to their respective groups (Ríos-Figueroa

and Aguilar 2018, 9). Third, following a turnover in leadership, autocrats tend to allow the independence of the judiciary to some extent to protect their interests making *ex post* punishment by the new leadership much more difficult (Helmke and Rosenbluth 2009; Ginsburg 2003; Finkel 2008; Randazzo et al. 2016).

Autocrats depend on the justice system to address external opposition. Applying repression against opponents is institutionalized through the judiciary's sentences, confiscation, deprivation of civil rights or capital punishment, which is heavily dependent on the willingness of the military justice system (Pereira 2005). Prosecutors under direct control of the executive are also used to investigate politically sensitive actors and issues and bring those cases to court for a trial, or threaten to do so to discourage the opposition from challenging the incumbent (Ríos-Figueroa and Aguilar 2018, 6).

While recent literature accepts the role of justice institutions in social control and power-sharing, this study argues that a better understanding of authoritarian judicial institutions should focus on the other dimension of choice—a credible commitment to the masses, an argument that has not, to my knowledge, been considered comparatively. This is important because empirical studies have also found unprecedented growth in the number of authoritarian electoral regimes after the end of the Cold War (Diamond 2002; Schedler 2006), and in these regimes, the pursuit of mass support in elections ensures dictatorial rule. Despite the finding that over two-thirds of leadership turnover in dictatorships are from regime insiders (Svolik 2012, 4), this type of removal is closely associated with mass electoral support of economic

performance. A declining economic performance leads to the loss of patronage (Magaloni 2006) and a change in voters' evaluation of the regime's hegemonic status, providing a motive for elites to defect from the regime (Reuter and Gandhi 2011). This can be prevented through the dictator's credible commitment not to exploit the masses or by supplying public goods (Bueno de Mesquita et al. 2003) to encourage investment into the regime.

Autonomous courts ensure credible and enduring policies in the economic sphere and the protection of property rights. That is, an independent judiciary has a monitoring function, helping the masses in the absence of information to observe the defection of autocrats from agreements (Carrubba 2005), and a coordination function, allowing individuals to mobilize and challenge government action, raising the cost of transgression (Weingast 1997). Thus, the more effectively courts guard property rights and the rule of law, the more confident investors will be that a country will remain stable and that their assets will not be confiscated.

Empirical evidence supports the role of independent courts in credible commitment to the masses. Voigt et al. (2015) found that the judiciary is able to make the state keep its promises on honoring private property rights, encouraging more productive investment, leading to faster economic growth, and also higher tax receipts for the state. A simple promise to secure property rights by ordinary law or even in the constitution is unlikely to be interpreted as a credible commitment. Instead, an independent judiciary is a tool that permits governments to make credible commitments to abide by the law. This insight led Voigt and Gutmann (2013) to confirm a positive economic growth effect of property rights once the judicial system is independent enough to guarantee

their enforcement. Singapore, for example, is known for its economic success because the rule of law enforced by an independent judiciary facilitates economic development. Judicial independence signals credible commitments by the state, as the former Prime Minister Lee Kuan Yew explained to the Singapore Parliament in 1995, ‘a country that has no rule of law, where the government acts capriciously is not a country wealthy men from other countries would sink money in real estate’.

It does not necessarily follow that an independent court is solely active in establishing a credible commitment to the masses. Some economic elites are the most interested actors in greater judicial independence, and in fact push for or demand equal judicial treatment. However, others may attempt to subordinate judiciaries through bribery, corruption, smuggling, and/or other crimes committed for personal gain. It is doubtful that dictators are incentivised to signal a credible commitment to economic elites through an independent judiciary, especially given the mixed motives for judicial independence held among those economic elites. By contrast, the masses are motivated to observe institutional changes made to the judiciary. Foremost, it is unlikely for them to engage in manufacturing, service, trade, and agriculture without property rights protections or a willingness to invest in the regime unless the leader offers a credible commitment to not expropriate their assets. This paper therefore argues that judicial institutions can help dictators signal a credible commitment to the masses.

In sum, this study argues that the purpose of creating the court system is to credibly commit to the masses that property rights protection will be maintained.

POLITICAL COMPETITION AND JUDICIAL INDEPENDENCE

This study answers why the level of judicial independence varies across authoritarian regimes with multiparty elections. The literature attributes the independence of the judiciary to intense political competition, and the two conventional wisdoms, political insurance theory (Aydin 2013; Epperly 2017; Hanssen 2004; Helmke and Rosenbluth 2009; Ginsburg 2003; Finkel 2008; Randazzo et al. 2016; Stephenson 2003, etc.) and strategic pressure theory (Faisman and Popova 2013; Popova 2010; Randazzo et al. 2016; Rebolledo and Rosenbluth 2009, etc.), offer contrasting interpretations of how political competition relates to the level of judicial independence. Proponents of the insurance theory argue that incumbents develop independent courts when faced with an imminent loss of power or powerful opposition, to protect their interests once they become political minorities. Scholars favoring strategic pressure theory suggest that intense political competition increases the incumbent's willingness to manipulate the courts to stay in office, thus reducing rather than increasing judicial independence. Empirical evidence for the two hypotheses has remained inconsistent, and in some analyses, competition is associated with increased levels of independence while in others it curtails the independence of the courts.

For the theoretical part, although the underlying logic of insurance theory is quite appealing, it seems inappropriate to assume that intense political competition inevitably leads authoritarian leaders to fall into minority status because they can use a variety of ways to defeat the opposition. While strategic pressure theory highlights the importance of managing the opposition in explaining judicial independence, two points merit further discussion. First,

the theory did not consider the role of the masses. Intense political competition leads the opposition to present it as a compelling alternative government, thus making it much easier to mobilize people's vote against the incumbent—who is less likely to hold onto power without popular support. Second, an independent court helps autocrats to ride on a wave of popularity. An independent judiciary ensures the dictator's credible commitment not to exploit the masses and by the protection of property rights to boost economic performance in the pursuit of mass support in elections, thus reducing the opposition's mobilization of the civilian population against the incumbents. As a result, autocrats who face intense political competition are likely to promote the maintenance of independent courts.

For mixed evidence, it can be attributed to the operationalization of the degree of political competition. Existing research has used government fractionalization (Faisman and Popova 2013; Randazzo et al. 2016), seat share of the party of the executive, or seat (or vote) difference between the winner and the runner-up in elections (Aydin 2013; Faisman and Popova 2013; Hanssen 2004; Popova 2010; Rebolledo and Rosenbluth 2009; Stephenson 2003), which would be problematic when applied to non-democracies. Emphasizing the relative strength of an incumbent party's hold on office vis-à-vis the opposition may ignore the inner dynamic of the opposition. Even if they hold a minority of the legislature seats or gain a lower percentage of votes, authoritarian leaders' expectations of remaining in power are not low with a divided opposition because autocrats can easily use "divide and rule" tactics (e.g., buy the acquiescence of opposition elites; see Gandhi and Buckles 2016). As Epperly (2017, 285) noted, multiple small opposition groups are not

as credible an electoral threat as a single opposition group with the same percentage of seats.

A united opposition—despite its relative weakness (e.g., a large difference between seat shares of the ruling party [or blocs of parties] and the opposition)—can still pose a threat to a dictator. Three mechanisms might explain the alleged link between opposition unity and the level of judicial independence: the strategy shifting effect, the alternative governing effect, and the donor antagonizing effect.

Autocrats can use a variety of ways to defeat the opposition and authoritarian leaders. Co-optation, for example, which ties key opposition elites or societal groups to the regime elites, is an effective strategy for demobilizing their supporters. Legislatures, for instance, either incorporate potential opposition forces that are granted access and control the flow of information for policy concessions, and thus broaden the basis of support for the ruler (Gandhi and Przeworski 2007, 1282), or offer opposition elites access to the perks and spoils of office, and thus reduce their incentive to mobilize citizen populations (Reuter and Robertson 2015, 237).

This strategy, however, cannot work as well when the opposition joins together, and it is less likely for dictators to use co-optation to differentiate political opposition, thus making divide and rule a less effective strategy. Instead, autocrats shift their strategies from dealing with the opposition to vie for popular support—a better measure is through an independent court to credibly commit to protecting property rights. This strategy legitimizes autocracies by promising economic security and acceptable economic performance in exchange for public support and delegitimizes the opposition's

shared tools such as targeting the legitimacy of the incumbent's reign and challenging their capacity to govern, thus buying political quiescence and relieving pressure for regime change from below.

A close reading of the literature on electoral fraud suggests a second mechanism—the alternative governing effect. Many dictatorships resort to electoral fraud for their survival, but opposition unity can compel autocrats to abdicate fraud and hold clean elections. Magaloni (2010) identifies two possible routes to democracy, arguing that a divided opposition, when suffering electoral abuse, gains access to the spoils of office and remains silent instead of deciding to revolt due to its incapacity to organize mass demonstrations against fraud—which is expected to be more credible when the opposition endorses a single presidential candidate or coalesces prior to elections. Further, voters facing electoral fraud are likely to switch their support to the opposition that calls for civil disobedience when polarization emerges along the dimension of regime-related issues, thus making it harder for authoritarian leaders to steal the elections.

The link of the two routes proposed by Magaloni—opposition unity to a credible threat from below—leads the masses to identify this form of opposition as a compelling alternative government. A common presidential candidate or allied opposition ensures electorates that if they are unsatisfied with government performance, they have a clear alternative. Additionally, the common goal of dismantling the government by denouncing gross violations of human rights against journalists or political activists, condemning economic collapse and failure to guarantee economic security, or revealing it is far removed from democracy induces the masses to coordinate around these

proposed alternatives, thus making it easier for this form of opposition politics to mobilize popular support and making it harder for incumbents to alter the electoral outcome through extensive vote buying.

If dictators have no choice but to hold clean elections, the best strategy is to attract popular attention and support. A credible commitment must be made to protect a set of property rights arrangement, allowing asset holders to earn rent in exchange for their loyalty to the regime. This strategy is workable because asset holders cannot ensure that the opposition will support an independent judiciary if winning an election. Subsequently, an independent court thus emerges.

The third possible cause—which I call the donor antagonizing effect—was derived from research on the international dimension of democratization (Dietrich and Wright 2015; Gibson et al. 2015; Hyde and Marinov 2014). Recent studies demonstrate that autocratic recipient governments use foreign aid at least partly for their survival, be it by redistributing additional rents to strategic groups (Ahmed 2012), financing repression (Bader and Faust 2014, 576), or stockpiling sustained aid flow for use in times of crisis (Kono and Montinola 2009).

Aid, however, has a double-edged sword. Donor's direct investment in democracy promotion through activities aimed at strengthening governance institutions, may check the abuses by government officials and decrease the incidence of electoral misconduct (Dietrich and Wright 2015). Further, an increase in donors' use of technical assistance to monitor government spending and promote political reforms through filling a recipient country's knowledge gap, improving bureaucratic procedures, and providing training to

country officials is associated with a decrease in the incumbent's ability to engage in patronage, thus contributing to political liberalization (Gibson et al. 2015). Finally, donors can increase the likelihood that citizens will punish those governments that fail to hold democratic elections by providing credible information about election quality (Hyde and Marinov 2014).

Autocrats are likely to decline aid assistance from unwelcome "friends" who promote the democratic rules of the game when the opposition commits to unite. Donors tend to focus on countries where there are reasonable prospects for positive impact, for example, in states that hold regular and somewhat competitive elections, have parties, and exhibit short-term democratization-friendly trends such as cooperation among opposition groups (Bunce and Wolchik 2006, 14). When opposition groups seek to unite and present credible electoral threats to incumbents, increasing aid helps such opposition find electoral misconduct or develop widespread public mobilization, thus facilitating regime change. In short, a smaller increase in aid brings about a large impact when opposition parties unite.

If autocrats must reduce their dependency on aid, an alternative way to stabilize the prevailing political structure is to push citizens toward the regime. Here, dictators do not lose power without using aid in repression or feeding patronage and clientele networks if they have a firm basis of popular support through an independent judiciary that ensures their economic rights.

In sum, this study argues that opposition unity compels authoritarian leaders to change their strategies of repression and patronage, abdicate electoral fraud, and antagonize donors attempting to implement democracy aid projects, thus making it likely for leaders to win public support through the

role of an independent judiciary. In short, opposition unity has a positive impact on judicial independence.

OPPOSITION UNITY AND JUDICIAL INDEPENDENCE

The unit of analysis in this research is “dictatorships with multiparty elections-year.” Regimes were defined as the rules that identify the group from which leaders can come and determine who influences leadership choice and policy (Geddes et al. 2014, 314). A dictatorship started if (1) an executive achieved power through undemocratic means, (2) the government achieved power through democratic means but subsequently changed formal or informal rules, or (3) competitive elections were held to choose government but one or more parties for which substantial numbers of citizens would be expected to vote were banned. A dictatorship ended when (1) a competitive election was won by another person rather than the incumbent, (2) the incumbent was ousted but replaced by a different regime, or (3) the ruling party changed the basic rules of leader selection (Geddes et al. 2014, 317-318).

Second, I follow Brownlee’s (2009, 524) operationalization of Levitsky and Way’s (2002) typology of dictatorships using data from the Database of Political Institutions (DPI). The DPI contains a 7-point measure of the legislative indices of electoral competitiveness (LIEC). An electoral regime was coded if a regime had a score greater than 4, which includes 5 = multiple parties are legal but only one party won seats, 6 = multiple parties won seats but the largest party won more than 75% of the seats, and 7 = the largest party held less than 75% of seats. I collected a sample of 1,187 pooled time series,

and cross-sectional observations between 1975 and 2010.

To confirm my argument that autocrats allow an independent court to some extent in the face of more cohesive opposition, this study operationalized the variables as follows. First, this research used Latent Judicial Independence (LJI) scores constructed with the graded item response theory (IRT) model (Linzer and Staton 2015) as the level of judicial independence, which captures the extent to which a court depends on a government and its trends between 1975 and 2012. Second, I measured opposition unity using DPI's *HERFOPP* variable (0-1), which calculated the sum of the squared seat shares of all parties except for those in the government; independents were calculated as if they were individual parties with one seat each. By this operationalization, the opposition is less fragmented if *HERFOPP* is close to 1.[1]

There are two reasons for this choice of arithmetic definition for opposition unity, i.e., the sum of the squared seat shares in the opposition. First, the emergence of an electoral alliance to challenge the incumbent that reduces the likelihood of a fragmented opposition often demonstrates the opposition's willingness to cooperate, increasing the probability of political liberalization (Howard and Roessler 2006, 371) or transitions to democracy (Donno 2013, 706). The autocrat, thus, needs to pay close attention to these strategic coalitions. Second, in non-democracies, parties frequently are not ideologically disciplined organizations formed to win elections, but rather groupings of notables who compete in elections to gain personal benefits

[1] If there is only one opposition party or electoral alliance in the parliament, *HERFOPP* is one. I did not use the sum of the squared vote shares of all opposition parties in an election because only those holding seats in parliament are likely to enact laws or check executive power.

(Gandhi and Reuter 2013, 142). The existing literature argues that the incentives of the opposition to build up electoral coalition are derived from the strength (Donno 2013, 706) or stability (Gandhi and Reuter 2013, 145-146) of the major opposition parties or their attitudes toward the dictator's co-optation strategies (Gandhi and Buckles 2016) instead of ideological distance among them. I, thus, choose to use the arithmetic definition.

An alternative measure of opposition unity was to use DPI's *OPPFRAC* variable (0-1), which calculated the probability that two deputies picked at random from among the opposition parties will be from different parties. The results, however, may differ according to the real number of seats held by each opposition party. For example, if there are two opposition parties in the parliament, each with a corresponding 50% of the seat, *HERFOPP* is 0.5 and the value of *OPPFRAC* lies between 0.5 and 1.[2] If there are four opposition parties in the parliament, each with a corresponding 25% of the seat, *HERFOPP* is 0.25 and the value of *OPPFRAC* lies between 0.75 and 1.[3] If opposition parties have been extremely fragmented, *HERFOPP* is close to 0 and *OPPFRAC* approaches or equals 1. As the total number of seats held by all opposition parties increase, *OPPFRAC* is approximately equal to 1-*HERFOPP.*[4] However, due to the effects of seat size, it would be hard to distinguish political fragmentation of opposition parties if each party won a few

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[2] *OPPFRAC* is $\frac{C_2^2 * C_1^n * C_1^n}{C_2^{2n}}$, and 1 if n=1, 0.5 if n→∞ ($\lim_{n\to\infty} \frac{C_2^2 * C_1^n * C_1^n}{C_2^{2n}} = \lim_{n\to\infty} \frac{n}{2n-1} = \frac{1}{2}$).

[3] *OPPFRAC* is $\frac{C_2^4 * C_1^n * C_1^n}{C_2^{4n}}$, and 1 if n=1, 0.75 if n→∞ ($\lim_{n\to\infty} \frac{C_2^4 * C_1^n * C_1^n}{C_2^{4n}} = \lim_{n\to\infty} \frac{3n}{4n-1} = \frac{3}{4}$).

[4] For example, k opposition parties, each with n seats, *OPPFRAC* is $\frac{C_2^k * C_1^n * C_1^n}{C_2^{kn}}$, and 1 if n=1, $1 - \frac{1}{k}$ if n→∞ ($\lim_{n\to\infty} \frac{C_2^k * C_1^n * C_1^n}{C_2^{kn}} = \lim_{n\to\infty} \frac{n(k-1)}{nk-1} = 1 - \frac{1}{k}$). *OPPFRAC* is close to 1 if k also approaches infinity ($\lim_{k\to\infty} 1 - \frac{1}{k} = 1$). *HERFOPP* is $k * (\frac{n}{nk})^2 = \frac{1}{k}$=1-*OPPFRAC.*

seats using *OPPFRAC* as a measure of opposition unity.[5]

A list of control variables was added. First, Hayo and Voigt (2007) observe that presidential systems enjoy lower levels of judicial independence compared to parliamentary systems. This may be because concentrated executive power imposes substantial constraints on judicial independence (Herron and Randazzo 2003). Thus, two types of constitutional systems—presidentialism and parliamentarism—were included. Presidential constitutions stipulate that a president must be popularly elected for a fixed term and cannot be dismissed by the legislature, and the government and legislature serve fixed and independent terms. Similar to Roberts's (2015) operationalization, the executive selection system was coded using the DPI *system* variable (Beck et al. 2001). Systems with presidents who are elected directly or by an electoral college whose only function is to elect the president, in cases where there is no prime minister or systems with both a prime minister and a president who has the power to veto legislation, or appoint and dismiss (prime) ministers and dissolve the parliament, were coded as presidential systems.

Second, I used annual economic development and growth to study the effects of economic conditions on judicial independence. As levels of development and thus complexity of the economy increases, a state might enact and enforce laws for the protection of property rights, which is a vital function of independent courts (Haggard et al. 2008). Further, economic

[5] Some real-world electoral dictatorships are Gabon (2012-): Rally for Gabon (3 seats) and Union for the New Republic (1 seat); Gambia (2002-2007): PDOIS (2 seats) and National Reconciliation Party (1 seat); Kazakhstan (2005-2007): Ak Zhol (1 seat) and Democratic Party Adilet (1 seat); Mauritania (1997-2001): Action for Change (1 seat) and Rally for Democracy and Unity (1 seat); Singapore (2001-2010): Singapore Democratic Alliance (1 seat) and Workers' Party (1 seat); Zimbabwe (1991-1995): Zimbabwe Unity Movement (2 seats) and ZANU-Ndonga (1 seat).

development measured as the log of GDP per capita and growth operationalized as the annual percentage change in GDP from the World Bank's Development Indicators reflects the likelihood of future violence (Jensen and Young 2008, 532), which affects a dictator's incentive over the use of aid to invest in property right protection (Wright 2008b, 974). Following this logic, the stability and duration of political systems and the associated time horizons of leaders influence a dictator's willingness to expropriate resources (Chang and Golden 2010, 5) or make credible commitments to property rights to encourage foreign investment. I thus included into the analysis the duration of an autocrat, measured as consecutive years in which the same autocratic regime has been in power in a particular country.

This study also controlled personalist rule as a dummy variable where 1 = *personalist rule* and 0 = *other types of dictatorships*, defined as the decision-making power in the hands of a narrower group centered on an individual dictator (Geddes et al. 2014, 318) where formal institutions are created to further the exchange of private goods for public support (Wright 2008a, 323), causing reduced legal protection of property. I also included the log of total population to capture the country's potential market size, commonly used as a foreign direct investment determinant (Harms and an de Meulen 2013; Javorcik et al. 2011; Hayakawa et al. 2013) that possibly relates to the demand for the security of property rights and independent courts. Using data from Geddes et al. (2014), I also added previous democratic experiences to measure whether a regime has previously experienced democratic rule that can leave positive influences on the development of laws for securing private property.

Finally, I controlled for government unity measured as DPI's *HERFGOV* variable (0-1), which reflects the level of political competition, in other words, a fragmented ruling camp increases the dictator's willingness to control the judiciary while the dictator's absolute control of government power through the ruling party decreases the likelihood of manipulating the judiciary.[6] In order to understand factors associated with dictatorships' level of judicial independence with a multi-party system, I ran a time-series cross-sectional regression model with country and time fixed effects.

Regarding robustness testing, this study first changed the threshold for the determinant of authoritarianism with a multiparty system (LIEC>=6). First, this entailed an exclusion of regimes that allowed multiple parties, but in which only one party won seats due to a sweeping electoral victory achieved by the autocrat's party. Such a circumstance can simultaneously be influenced by unobserved factors that determine the willingness of the opposition to join interests. Second, this study considered a list of authoritarian regime types as a control rather than using personalist dictatorships. For example, based on the findings discussed in the next chapter, dictators in dominant party regimes borrow their legitimacy from better governance and may therefore need to focus on the economic rights of the people. Finally, to allow some time for the effects of opposition unity on judicial independence to materialise, this study lagged the independent variable by one period.

Before conducting empirical analyses, it is useful to identify whether dictatorships with multiparty elections exhibit considerable variations in judicial

[6] The other opposite reason is that government fragmentation increases the number of potential challengers, causing higher levels of political competition that will add to the dictators' fears about turnover and willingness to develop judicial institutions as protection following a change in leadership (Randazzo et al., 2016, 586).

independence, especially because these specific types of autocracies are more prone to judicial independence. The results certainly show considerable variation in the independence of the judiciary (see Supplementary Figure 1).

Table 1. Opposition Unity and Judicial Independence, 1975–2010

	Model (1) JI	Model (2) JI	Model (3) JI	Model (4) JI
Opposition unity	0.036***	0.026**	0.029***	0.031***
	(0.011)	(0.010)	(0.010)	(0.010)
Government unity		0.029**	0.043***	
		(0.014)	(0.014)	
Presidentialism		-0.066***	-0.070***	-0.067***
		(0.012)	(0.012)	(0.011)
Log GDP pc		0.047***	0.049***	
		(0.007)	(0.007)	
Growth		0.000		
		(0.000)		
Autocratic duration		0.001		0.003***
		(0.001)		(0.001)
Personalist rule		-0.181***	-0.160***	-0.122***
		(0.023)	(0.017)	(0.022)
Log population		0.093**	0.054	
		(0.041)	(0.041)	
Previous democratic exp.		-0.042		-0.004
		(0.051)		(0.052)
No. of subjects	966	938	944	966
No. of groups	71	70	70	71
Years dummy	Yes	Yes	Yes	Yes
Adjusted R-squared	0.8710	0.8968	0.8938	0.8902
Prob>F	0.0000	0.0000	0.0000	0.0000

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table 1 presents the results of four models of judicial independence in dictatorships with multiparty elections. Model 1 and 2 are univariate and multivariate fixed effects models. Model 3 omits covariates in Model 2 that are not statistically significant while Model 4 omits all control variables that have missing values in order to keep all cases in the data. As a result, Model 1 and 4 have the same number of observations, 966. Results show preliminary support for my central hypothesis that opposition unity is highly associated with increased judicial independence in dictatorships with multiparty elections:

opposition unity was statistically significant at the .01 level, and the coefficient for opposition unity was still positive using multivariate models and restricted models. Government unity and economic development were estimated to have a statistically positive effect. Presidential systems and personalist dictatorships impose substantial constraints on judicial independence.

Table 2. Opposition Unity and Judicial Independence, 1975–2010

	Model (1) JI	Model (2) JI	Model (3) JI
Opposition unity	0.028***	0.026**	
	(0.010)	(0.010)	
Opposition unity$_{t-1}$			0.029***
			(0.010)
Government unity	0.030**	0.024*	0.022
	(0.014)	(0.014)	(0.015)
Presidentialism	-0.066***	-0.063***	-0.060***
	(0.012)	(0.012)	(0.012)
Log GDP pc	0.048***	0.047***	0.049***
	(0.007)	(0.007)	(0.008)
Growth	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Autocratic duration	0.001	-0.000	-0.002*
	(0.001)	(0.001)	(0.001)
Personalist rule	-0.183***	-0.235***	-0.280***
	(0.023)	(0.028)	(0.035)
Military dictatorships		-0.178***	
		(0.054)	
Monarchy			
Log population	0.092**	0.107***	0.113***
	(0.042)	(0.041)	(0.043)
Previous democratic exp.	-0.040	-0.079	-0.122**
	(0.051)	(0.052)	(0.057)
No. of subjects	927	938	875
No. of groups	69	70	72
Years dummy	Yes	Yes	Yes
Adjusted R-squared	0.8978	0.8981	0.9019
Prob>F	0.0000	0.0000	0.0000

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$. Monarchy was omitted in model 2 because the samples did not include monarchies where multiparty elections were allowed.

Table 2 also confirms the positive effects of opposition unity on judicial independence in dictatorships with multiparty elections when this study excluded regimes that allowed multiple parties, but in which only one party

won seats (Model 1), considered a list of authoritarian regime types as a control rather than using personalist dictatorships (Model 2), and lagged the independent variable by one period (Model 3).

OTHER ROBUSTNESS TESTS

Regarding other tests for robustness, this study used Cheibub, Gandhi, and Vreeland's (2010, 69, CGV) definition of democracy and dictatorship. A regime is classified as a democracy if (1) the chief executive is popularly elected or chosen by a body itself popularly elected, (2) the legislature is popularly elected, (3) multiple parties legally allowed can compete in elections, and (4) alternation in power takes place, and the rules under which it occurs are identical to those that brought incumbents to power. A dictatorship was defined when one of the four criteria were not met. The Cheibub et al. (2010) measure therefore presents a basic conceptualization of democracy: electoral contestation of power and an alternation in power under electoral rules. Compared to Geddes, Wright, and Frantz's (GWF) coding, CGV's dataset adds the alternation rule to classify a regime. In contrast to CGV's coding, GWF's classification scheme does not treat autocratic regime as a residual category by identifying periods of anarchy and provisional government from one autocratic regime to another and including other criteria as suffrage and party competition for coding regime type. Subsequently, coding disagreements between the two datasets on some cases emerge.

To test the hypothesis, I included a list of control variables, including constitutional design, the log of GDP per capita, GDP growth, the duration of an autocrat, personalist rule, the log of total population, previous democratic

experiences, and government unity. Two points merit further elaboration. First, Cheibub et al. (2010, 84) classify dictatorship according to whether the leader is civilian, military (have ever worn a uniform), or monarchic (hereditary royalty), thus differing from GWF's classifications based on whether control over policy, leadership selection, and the security apparatus is controlled by a ruling party, a royal family, the military, or a narrower group centered around an individual dictator. This study thus included the three forms of dictatorship advanced by Cheibub et al. (2010, 84). Second, the duration of an autocrat and previous democratic experiences must be operationalized using CGV's dataset.

Second, I probed the robustness of using the alternative measure of opposition unity on my main results. The opposition organizes and creates a strategic coalition in the parliamentary election and the bid for presidency; these opposition leaders and civil society groups can choose to pre-commit to common candidates and mobilize their respective supporters to vote against the incumbent, maximizing their chances of winning elections (Magaloni 2010). By contrast, the more divided the opposition because of the failure to coordinate or collaborate leads to the unsuccessful defeat of dictators (Bunce and Wolchik 2010, 47). Subsequently, I measured opposition unity as the total number of votes of the top presidential candidate divided by that of other candidates of the opposition bloc using data of each election from the Psephos— Adam Carr's Election Archive, Election Data Handbooks by Dieter Nohlen, and Wikipedia Election Lists by Country (see Appendix E).[7]

In the analyses, I added government strengths that captured the

[7] Opposition unity is one if the opposition proposes a common presidential candidate. For the two-run system, I used the vote share in the first run.

popular base of the dictator as the president and coded this as the dictator's vote share in each presidential election using Psephos' data. Further, I controlled for the log of GDP per capita, GDP growth, the duration of an autocrat, personalist rule, the log of total population, and previous democratic experiences.

Third, I excluded elections that the major opposition had boycotted using self-collected data from the literature, conventional country reports, newspaper article, and election results archive (see Appendix C) because it is unknown if these opposition elites are willing to come together and form a single party or an electoral alliance in the parliament to challenge the incumbent. For the purpose of reliability, I compared the results of coding election boycotts with the *NELDA14* variable in the National Elections across Democracy and Autocracy dataset, finding except for a very small number of cases, that results of cases that recorded boycott or not were consistent (see Appendix D). Finally, I excluded some cases where a few opposition parties or candidates boycotted but they were relatively insignificant ones using Varieties of Democracy's *v2elboycot* variable. The results of coding in this study and the two comparative dataset, thus, can arrive at a consensus on a number of cases that recorded an election boycott.

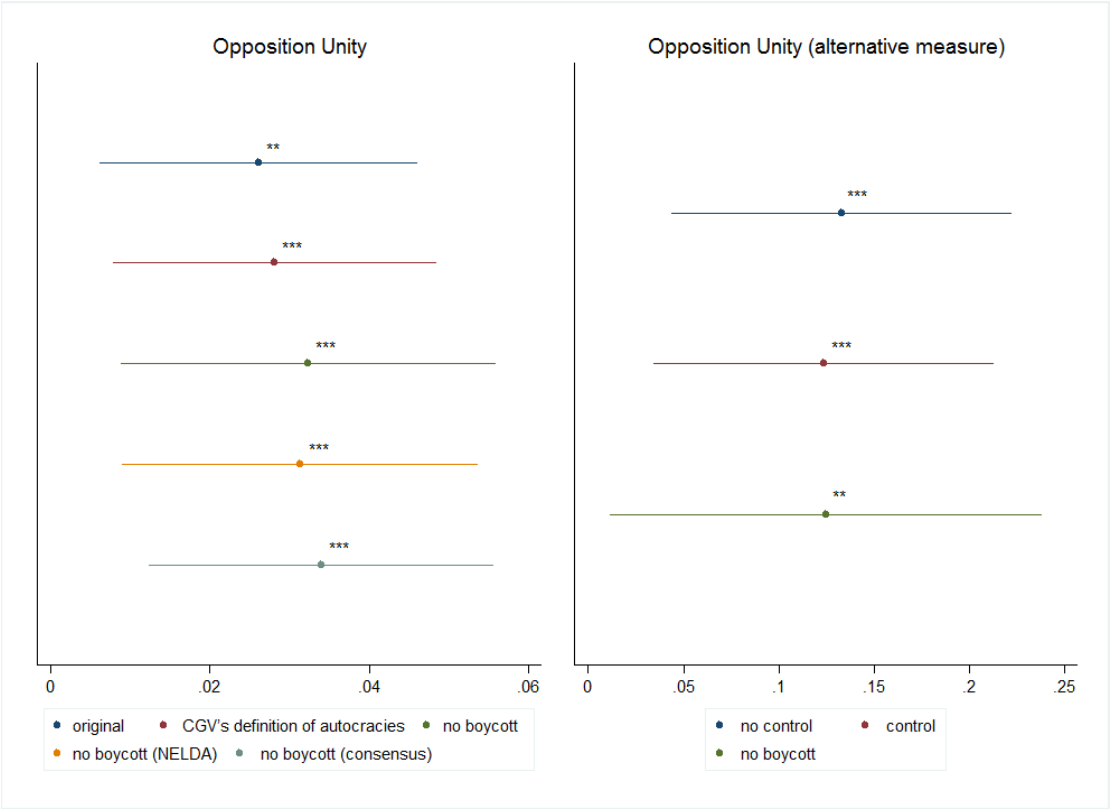

Figure 1. The coefficient plot: Opposition unity promotes a more independent authoritarian judiciary

Note: left panel: opposition unity measured as the sum of the squared seat shares of all parties except for those in the government; right panel: opposition unity measured as the total number of votes of the top presidential candidate divided by that of other candidates of the opposition bloc. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Results illustrated in left and right panel correspond to Supplementary Table 1 and 2.

Figure 1 reports the coefficient plots of opposition unity in a series of robustness models, indicating the positive effects of opposition unity on judicial independence. This suggests that the opposition's strategy to form a political party or electoral alliance in parliament, or have a common presidential candidate would promote an independent judiciary. The results in robustness models mirrored those of the original model with other control variables, but were slightly stronger: a rise of 0.028 ($p < .01$) in judicial independence scores from the model where CGV's definition of democracy and dictatorship was used and scores of 0.032 ($p < .01$), 0.031 ($p < .01$), and 0.034 ($p < .01$) from the three models where elections that the major opposition had boycotted were excluded. In short, the independence of the

judiciary is guaranteed when the opposition works on strategies to field their common presidential candidates or seek to construct electoral alliances.

TEST OF THE ALTERNATIVE EXPLANATIONS

Although this evidence supported the argument that opposition unity compels authoritarian leaders to vie for popular support through the role of an independent judiciary, there may be alternative explanations for the pattern. Proponents of the political insurance theory argue that incumbents develop independent courts when faced with an imminent loss of power, while scholars favoring strategic pressure theory suggest that lower levels of political competition decrease an incumbent's willingness to manipulate the courts to stay in office and thus increase rather than reduce judicial independence. The analysis should control for any effects of the two alternative explanations.

To tap into the survival probability of the ruler, I used four possible measures: regime interruptions by coups in the previous year (Gandhi and Przeworski 2006), the magnitudes of armed conflicts (Chang and Golden 2010), years in office for the chief executive (Hallagan 2010), and the actual regime duration (Clague et al. 1996).[8] The reason for the choice was that countries that have many autocratic regime changes by coups elevate the propensity for another coup and, thus, are more unstable than countries that have had no or few autocratic regime changes. Further, any involvement in an armed conflict, whether international, civil, or ethnic, is likely to add political instability, thus shrinking the regime durations of autocrats. Finally, autocrats

[8] I used data from the DPI's *YRSOFFC* variable (continuous); the Geddes, Wright, and Frantz Autocratic Regimes dataset's *GWF_ Duration* variable (continuous); major episodes of political violence (MEPV) and conflict regions' *ACTOTAL* variable (ordinal); and Coup d'état Events' *SCOUP1* variable (binary).

learn how to use a variety of ways to contain challenges and threats to ensure their own regime's survival, especially if they have stayed in power for some period of time.

Instead of using proxy variables as mentioned above, for this research I followed Wright (2008b, 979–981) to use the probability of regime failures as a proxy for autocratic time horizons. I generated the predicted probability of failure for each regime-year using the following predictors to model regime failure: GDP per capita, GDP per capita growth, ethnic and religious fractionalization, the magnitudes of armed conflict, a list of regime-type variables (military, monarchy, oligarchy, party, personalist, military-personal hybrid, party-military hybrid, party-personal hybrid, party-military-personalist hybrid), and a cubic polynomial of time to control for time dependence. The advantage to using this type of predicted probability is that, foremost, I can integrate factors influencing levels of judicial independence and transform the values into predictors of regime survival and, additionally, I do not have to assume that all incumbents hold the same expectations of regime duration at the same age of the regime.

Figure 2 reports the coefficient plots of opposition unity and five measures of the survival probability of the incumbent, illustrating that the coefficient for opposition unity remained positive with statistical significance. However, the empirical work provided inconsistent results for political insurance theory. On one hand, the coefficients for the magnitudes of armed conflict and the predicted probability of regime failures were all negative and significant, indicating that as the probability of regime failure increased, judicial independence decreased. On the other hand, the coefficients for years in

office for the chief executive were also negative and significant, suggesting that when the incumbents believed that their majority status was in jeopardy, they promoted an independent judiciary as a type of insurance for ruling regimes. However, the actual regime duration exerted no significant effect on judicial independence.

As for the test of strategic pressure theory, to operationalize the degree of political competition, I followed the lead of existing research for my measures—Aydin 2013; Faisman and Popova 2013; Hanssen 2004; Popova 2010; Randazzo et al. 2016; Rebolledo and Rosenbluth 2009; Stephenson 2003). (1) I first measured government fractionalization, calculated as the sum of the squared seat shares of all government parties; (2) I calculated the relative strength of an incumbent party's hold on the top office vis-à-vis the opposition using the relative seat shares of the government parties and (3) the seat-share difference between the government and opposition parties; and (4) I chose the legislative indices of electoral competitiveness (LIEC) using data from DPI and rearranged the scores: 0 = multiple parties are legal but only one party won seats; 1 = multiple parties won seats but the largest party won more than 75% of the seats; and 2 = the largest party held less than 75%. Increases in the scores corresponded with increases in the degree of political competition. I would expect to find that a fragmented ruling camp, a weak government vis-à-vis the opposition, or higher levels of legislative electoral competitiveness would increase autocrats' willingness to put the courts under strict control, thus reducing judicial independence.

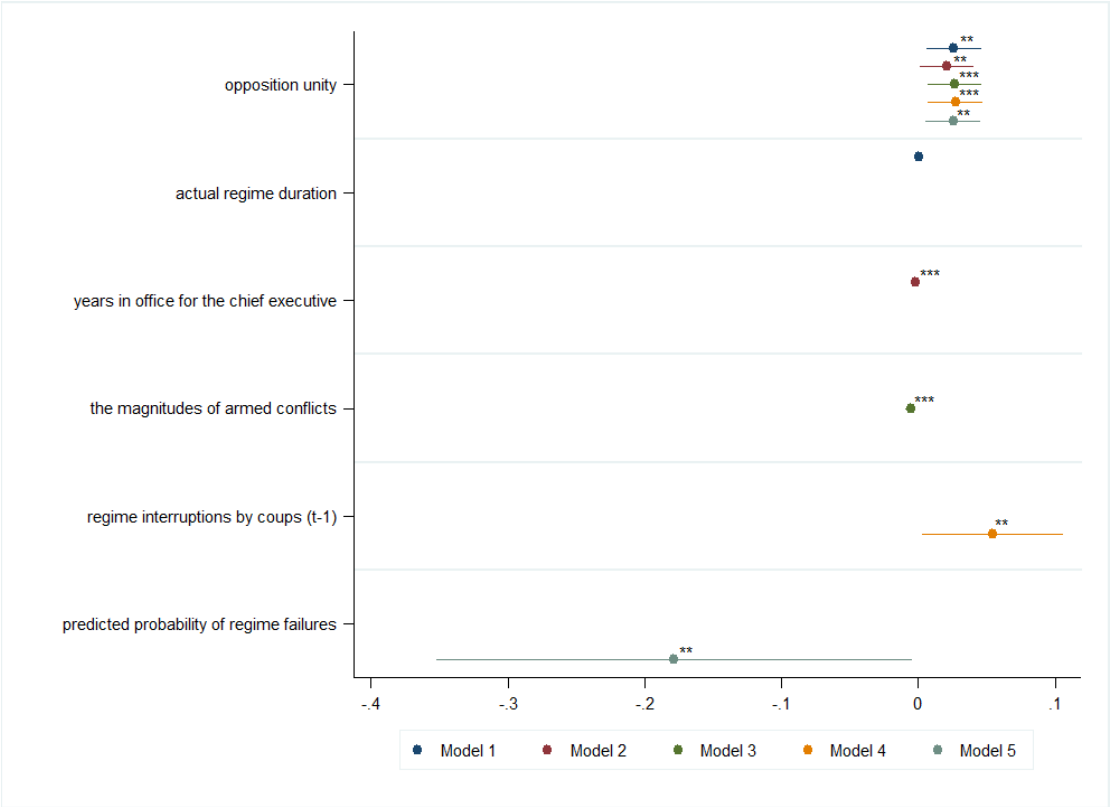

Figure 2. The coefficient plot: Opposition unity and the survival probability of the ruler

Note: Regression coefficient: Model 1: opposition unity: 0.026**, and actual regime duration: 0.001, model 2: opposition unity: 0.021**, and years in office for the chief executive: -0.002***, model 3: opposition unity: 0.027***, and the magnitudes of armed conflict: -0.005***, model 4: opposition unity: 0.027***, and regime interruptions by coups in the previous year: 0.055**, model 5: opposition unity: 0.026**, and predicted probability of regime failure: -0.179**. Regression coefficient in the univariate analysis: actual regime duration: 0.001; years in office for the chief executive: -0.002***; the magnitudes of armed conflict: -0.008***; regime interruptions by coups in the previous year: 0.010; predicted probability of regime failure: -0.143***. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Results illustrated in Figure 2 correspond to model 1, 2, 3, 4, and 5 of Supplementary Table 3.

Figure 3 reports the coefficient plots of opposition unity and four measures of political competition, illustrating that the effects of opposition unity are still in the predicted direction. Further, in multivariate models, although empirical evidence has supported the argument that intense political competition magnifies the benefits of courts being subservient to incumbents, the ruling bloc unity and legislative electoral competitiveness had no statistically significant effect on judicial independence in the analysis of univariate data.

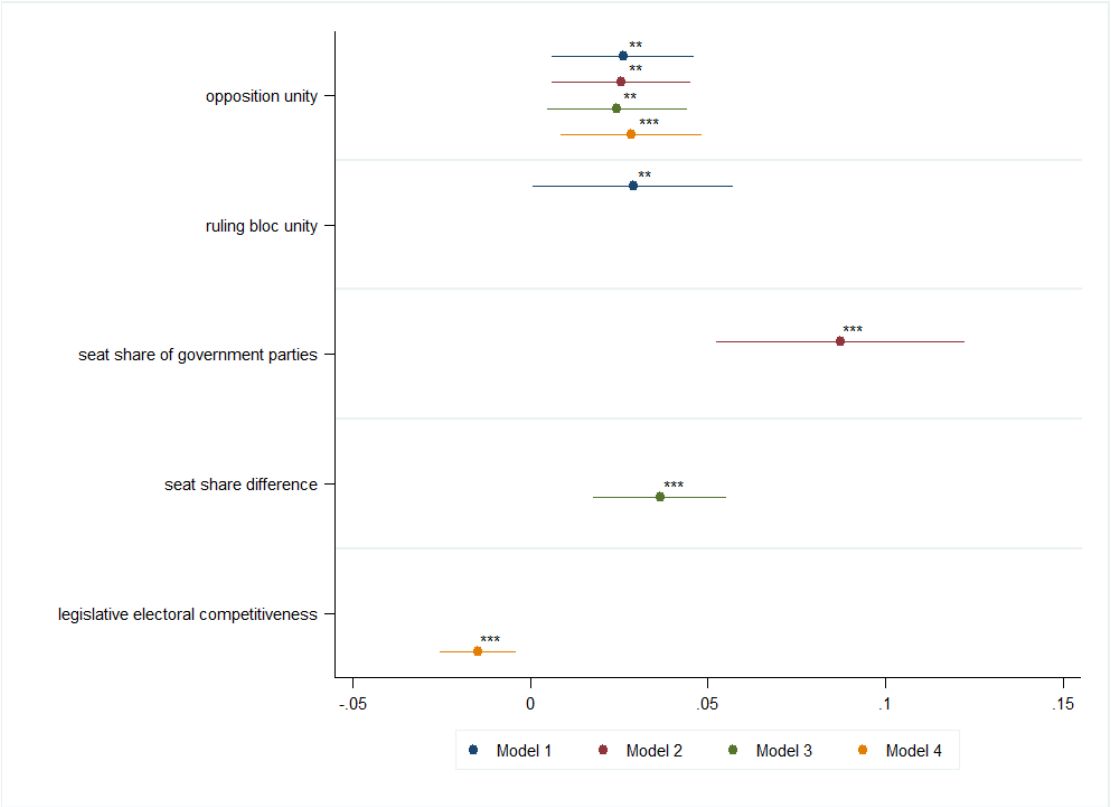

Figure 3. The coefficient plot: Opposition unity and political competition
Note: Regression coefficient: Model 1: opposition unity: 0.026**, and ruling bloc unity: 0.029**, model 2: opposition unity: 0.026**, and seat share of government parties: 0.087***, model 3: opposition unity: 0.024**, and seat share difference between government and opposition parties: 0.037***, model 4: opposition unity: 0.028***, and legislative electoral competitiveness: -0.015***. Regression coefficient in the univariate analysis: ruling bloc unity: 0.015; seat share of government parties: 0.040***; seat share difference between government and opposition parties: 0.014*; legislative electoral competitiveness: -0.002. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Results illustrated in Figure 3 correspond to model 1, 2, 3, and 4 of Supplementary Table 4.

CONCLUSION

This paper examined why judicial independence varies across authoritarian regimes with multiparty elections. While recent literature accepts the role of justice institutions in power-sharing, this study argues that a better understanding of authoritarian judicial institutions should focus on other dimension of choice—a credible commitment to the masses. In this theory, an independent court constrains authoritarian leaders from expropriating private property and, subsequently, attracts investment, boosts economic growth, and further helps dictators gain public support. Opposition unity determines the independence of the judiciary: a united opposition incentivizes dictators, in

case of mass defections to this form of opposition, to drum up public support through an independent judiciary instead of resorting to co-optation or electoral fraud. This study confirms the positive effects of opposition unity on judicial independence.

Other authoritarian institutions, such as legislatures and political parties, can reduce the risks of expropriation (Jensen et al. 2014), repression, and human rights violations (Rivera 2017). These institutions play roles similar to that of an independent judiciary, thereby potentially reducing the demand for independent courts. Also like the judiciary, however, these institutions are endogenous to opposition unity, as it leads to higher levels of political competition. For dictators, this will increase the willingness to create legislatures and political parties for the purpose of co-opting broader segments from within society (Gandhi and Przeworski 2007). As such, this study did not control for the effects of other authoritarian institutions.

Existing research confirms that the more independent judges are, the stronger are the protection of property rights (Berggren and Gutmann 2020; Voigt and Gutmann 2013), which is consistent with the finding that the role of the judiciary in property rights protection in dictatorships with multiparty elections (Figure S1, supplemental material). Thus, as democracies, the purpose of creating the court system in dictatorships with multiparty elections is to credibly commit to the masses that property rights protection will be maintained. Further, the literature finds that a positive economic growth effect of property rights once the judicial system is independent enough to guarantee their enforcement (Voigt and Gutmann 2013). Based on the proposed argument, a more cohesive opposition increases a dictator’s willingness to

seek public support through an independent judiciary under which property rights do spur positive economic growth. It is thus expected that the effect of property rights on economic growth should be conditional on the extent to which the opposition is united (Figure S2, supplemental material).

Competition is shown to produce more independence in courts, as the insurance theory has argued, but restrict judicial independence, which is proposed by scholars of strategic pressure theory. The two theories, however, hone in on the interplay of dictators and the opposition, failing to consider the role of the masses and international actors. It is important because political competition signals to both actors that regime change is possible, which will, subsequently, lead dictators to increase or decrease the independence of the justice system for the active purpose of turning the tide. Following this logic, this study develops a more holistic approach in combining this strategic interaction of four political actors that can better reflect the effects of political competition on judicial independence. That is, based on the informational role of multi-party elections, it argues that opposition unity compels authoritarian leaders to vie for popular support through the role of an independent judiciary. Empirical analyses found mixed evidence for the two theories, but my theoretical expectations were confirmed even if this analysis controlled for any effects of the two alternative explanations.

There is also the problem of reverse causality; that is, judicial independence is associated with the extent to which the opposition is united. An independent judiciary discourages autocrats from repressing opponents through judiciary sentences, confiscation, the deprivation of civil rights, and capital punishment, thus reducing the costs of the ruler’s punishment among

those who participated in a failed electoral alliance. This increases the oppositional willingness to create a single party, a broad-based electoral alliance, or jointly support a single presidential candidate against incumbents. To eliminate endogeneity and confirm my arguments, this study integrated an instrumental variable (Table M1 and M2, supplemental material).

Future research should investigate in more detail the three causal pathways. One approach is to use identification strategies as a research design to solve the causal inference identification problem. For example, if the strategy shifting effect exists, I may observe the indirect effect of opposition unity on judicial independence through a decreased willingness to engage in co-optation. However, as not all causal mechanisms are present, the other approach would be to use a small-N analysis to find situations on which the three causal effects depend.

Future directions of research can also integrate the study of courts across different regimes (Aydin 2013; Randazzo et al. 2016). Not all dictatorships that hold multiparty elections are the same, and the key distinguishing feature may be whether authoritarian leaders have the power to use a subservient or independent judiciary to ensure their survival. Even if a leader tends to tolerate or develop independent courts, the presence of powerful elites and, thus, multiple veto players, attempting to subordinate judiciaries in bribery, corruption, smuggling, or other crimes committed for personal gains, means that a change in the status of the court system is less likely. A powerful leader, on the contrary, controls the judiciary at will despite all the political incentives. Another distinguishing feature is the distinctive pattern of legitimation that influences whether the dictator needs to pay close attention

to political competition. For example, a monarch legitimizes him or herself by a strong divine or natural source, regardless of the political outcome of his or her rule (Kailitz 2013, 48-49). Thus, a monarch may have lower intention to manipulate the courts to stay in office in response to intense political competition.

In sum, my results imply that opposition unity compels authoritarian leaders to legitimize their rules through the role of independent judiciaries in property right protections. At least two policy implications follow. First, efforts to influence the independence of the judiciary could start with increased coordination among opposition parties. Second, legal scholars of judicial independence in dictatorships with multiparty elections could pay close attention to how institutional design facilitates cooperation within the opposition (Gandhi 2008).

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Table S1. Opposition Unity and Judicial Independence, 1975–2010

	Model (1) JI	Model (2) JI	Model (3) JI	Model (4) JI	Model (5) JI
Opposition unity	0.026**	0.028***	0.032***	0.031***	0.034***
	(0.010)	(0.010)	(0.012)	(0.011)	(0.011)
Government unity	0.029**	0.044***	0.027*	0.033**	0.025
	(0.014)	(0.016)	(0.015)	(0.015)	(0.015)
Presidentialism	-0.066***	-0.110***	-0.058***	-0.057***	-0.067***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Log GDP pc	0.047***	0.057***	0.045***	0.031***	0.050***
	(0.007)	(0.007)	(0.008)	(0.009)	(0.008)
Growth	0.000	-0.000	-0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Actual regime duration	0.001	0.000	0.001	0.001	0.001
	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)
Personalist rule	-0.181***		-0.206***	-0.205***	-0.196***
	(0.023)		(0.026)	(0.025)	(0.025)
Military dictatorships		-0.069***			
		(0.014)			
Log population	0.093**	-0.065**	0.078*	0.062	0.101**
	(0.041)	(0.032)	(0.046)	(0.045)	(0.044)
Previous democratic exp.	-0.042	-0.256***	-0.056	-0.053	-0.055
	(0.051)	(0.036)	(0.052)	(0.051)	(0.053)
No. of subjects	938	1019	718	696	833
No. of groups	70	82	62	63	66
Years dummy	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.8968	0.9245	0.8981	0.9039	0.8927
Prob>F	0.0000	0.0000	0.0000	0.0000	0.0000

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$. Model 1 is original model. Model 2 used Cheibub et al.'s (2010, 69) definition of democracy and dictatorship. Model 3, 4, and 5 are restricted model where elections that the major opposition had boycotted were excluded using data from the author, the National Elections across Democracy and Autocracy dataset, and a consensus that the author and the two comparative dataset arrive at on a number of cases that recorded an election boycott.

Table S2. Opposition Unity and Judicial Independence (presidential elections), 1975–2010

	Model (1) JI	Model (2) JI	Model (3) JI
Opposition unity	0.133***	0.124***	0.125**
	(0.045)	(0.045)	(0.057)
Government strength	-0.196***	-0.152***	-0.126
	(0.058)	(0.058)	(0.083)
Log GDP pc		0.006	0.005
		(0.011)	(0.012)
Growth		-0.000	-0.001
		(0.001)	(0.001)
Autocratic duration		-0.000	0.001
		(0.001)	(0.001)
Personalist rule		-0.078***	-0.047*
		(0.023)	(0.027)
Log population		0.000	-0.006
		(0.009)	(0.010)
Previous democratic exp.		0.064***	0.091***
		(0.024)	(0.031)
No. of subjects	142	139	97
Adjusted R-squared	0.0993	0.1879	0.1638
Prob>F	0.0003	0.0000	0.0000

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$. Model 3 is restricted model where elections that the major opposition had boycotted were excluded using data from the author (the results of coding same as that of the National Elections across Democracy and Autocracy dataset).

Table S3. Opposition Unity and Judicial Independence, 1975–2010

	Model (1) JI	Model (2) JI	Model (3) JI	Model (4) JI	Model (5) JI
Opposition unity	0.026**	0.021**	0.027***	0.027***	0.026**
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Actual regime duration	0.001				
	(0.001)				
Years in office		-0.002***			
		(0.000)			
Armed conflicts			-0.005***		
			(0.002)		
$Coups_{t-1}$				0.055**	
				(0.026)	
Probability of regime failures					-0.179**
					(0.089)
Government unity	0.029**	0.029**	0.030**	0.032**	0.029**
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Presidentialism	-0.066***	-0.054***	-0.062***	-0.065***	-0.065***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Log GDP pc	0.047***	0.045***	0.047***	0.049***	0.048***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Growth	0.000	0.000	-0.000	0.000	-0.001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
Personalist rule	-0.181***	-0.218***	-0.193***	-0.200***	-0.192***
	(0.023)	(0.018)	(0.018)	(0.018)	(0.018)
Log population	0.093**	0.093**	0.088**	0.091**	0.089**
	(0.041)	(0.040)	(0.041)	(0.041)	(0.041)
Previous democratic exp.	-0.042	-0.090*	-0.062	-0.065	-0.063
	(0.051)	(0.046)	(0.047)	(0.047)	(0.047)
No. of subjects	938	938	938	938	933
No. of groups	70	70	70	70	69
Years dummy	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.8968	0.9005	0.8977	0.8972	0.8964
Prob>F	0.0000	0.0000	0.0000	0.0000	0.0000

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

Table S4. Opposition Unity and Judicial Independence, 1975–2010

	Model (1) JI	Model (2) JI	Model (3) JI	Model (4) JI
Opposition unity	0.026**	0.026**	0.024**	0.028***
	(0.010)	(0.010)	(0.010)	(0.010)
Government unity	0.029**			
	(0.014)			
Seat shares of gov. parties		0.087***		
		(0.018)		
Seat-share difference			0.037***	
			(0.010)	
LIEC				-0.015***
				(0.005)
Presidentialism	-0.066***	-0.062***	-0.063***	-0.067***
	(0.012)	(0.011)	(0.012)	(0.012)
Log GDP pc	0.047***	0.040***	0.040***	0.044***
	(0.007)	(0.007)	(0.007)	(0.007)
Growth	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Autocratic duration	0.001	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Personalist rule	-0.181***	-0.178***	-0.178***	-0.177***
	(0.023)	(0.023)	(0.023)	(0.023)
Log population	0.093**	0.071*	0.083**	0.088**
	(0.041)	(0.040)	(0.041)	(0.041)
Previous democratic exp.	-0.042	-0.030	-0.032	-0.036
	(0.051)	(0.051)	(0.051)	(0.051)
No. of subjects	938	943	943	943
No. of groups	70	70	70	70
Years dummy	Yes	Yes	Yes	Yes
Adjusted R-squared	0.8968	0.8996	0.8986	0.8976
Prob>F	0.0000	0.0000	0.0000	0.0000

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$.

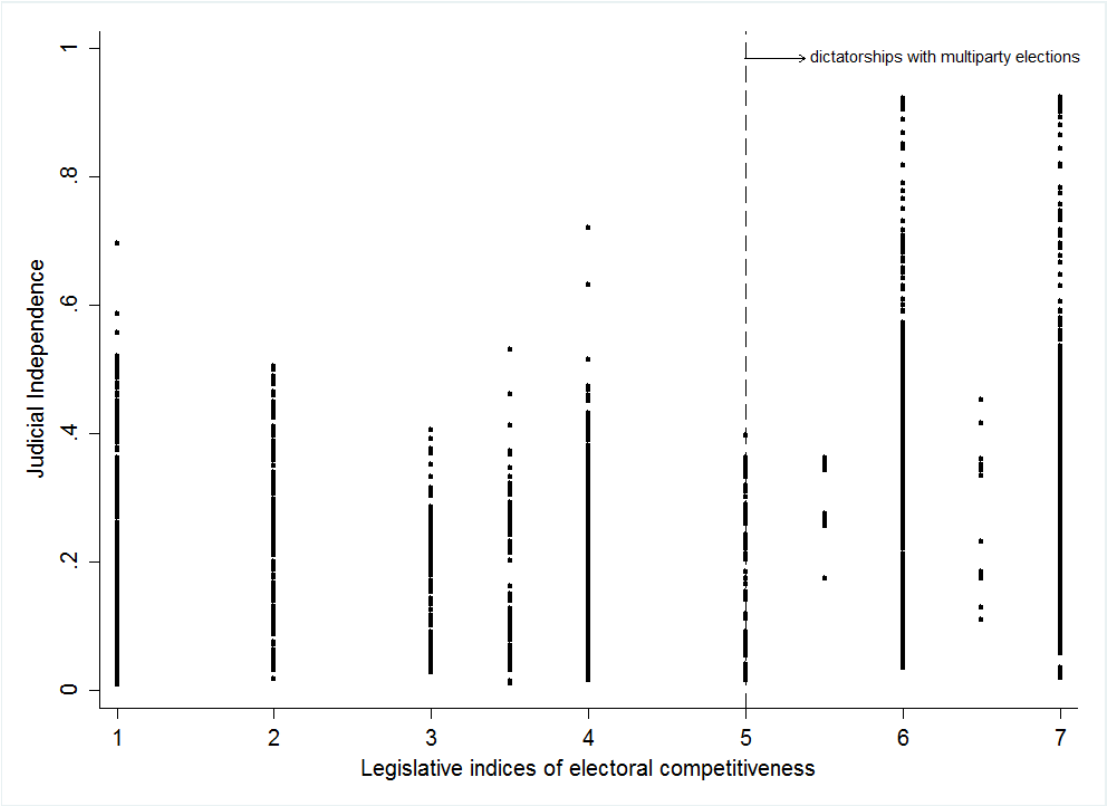

Figure S1. The Variation in Judicial Independence in Dictatorships with Multiparty Elections, 1975–2010

Note: all dictatorships: mean=0.235, standard deviation=0.159; dictatorships with multiparty elections: mean=0.296, standard deviation=0.176; dictatorships without multiparty elections: mean=0.189, standard deviation=0.125. *Source*: the author.

Supplemental material to "A credible commitment to the masses: how opposition unity affects judicial independence in authoritarian regimes with multiparty elections"

The role of authoritarian judiciary

To confirm my theoretical expectations of the role of the authoritarian judiciary in property rights protection, this study operationalized the variables as follows. First, this research used Latent Judicial Independence (LJI) scores as the level of judicial independence, which captures the extent to which a court depends on a government. Second, property right protection was coded using the property right components of the index of economic freedom from 1995 from the Heritage Foundation, which assesses the extent to which a country's legal framework allows individuals to accumulate private property freely and the likelihood that private property will be expropriated by the state and provides a scale from 0 to 100 for measuring the degree to which a country's laws protect private property rights.

I included a list of control variables influencing the extent to which a state enacts and enforces laws for the protection of property rights. Economic development measured as the log of GDP per capita and growth operationalized as the annual percentage change in GDP from the World Bank's Development Indicators reflects the likelihood of future violence (Jensen and Young 2008, 532), which affects a dictator's incentive over the use of aid to invest in property right protection (Wright 2008b, 974), and influences a dictator's willingness to expropriate resources (Chang and Golden 2010, 5). Following this logic, I included the duration of an autocrat into the analysis. This study also controlled personalist rule as a dummy variable

where 1 = *personalist rule* and 0 = *other types of dictatorships*, defined as decision-making power in the hands of a narrower group centered on an individual dictator (Geddes et al. 2014, 318) where formal institutions are created to further the exchange of private goods for public support (Wright 2008a, 323), causing reduced legal protection of property. I also included the log of total population to capture the potential market size of the country, commonly used as a foreign direct investment determinant (Harms and an de Meulen 2013; Javorcik et al. 2011; Hayakawa et al. 2013) that possibly relates to the demand for the security of property rights. Finally, using data from Geddes et al. (2014), I also added previous democratic experiences to measure whether a regime has previously experienced democratic rule that can leave positive influences on the development of laws for securing private property. This study tested the hypotheses using panel data regression.

Figure M1 confirms the role of authoritarian judiciaries in property right protection. In model without the inclusion of control variables, a rise in scores of judicial independence from 0 to 0.1 increased the index of property right protection by 4.28 ($p < .01$). When the explanatory variables were included, the judicial independence positively and statistically related to the degree to which a country's laws protect private property rights. Compared to model without covariates, the effect declined from 4.28 to 3.89 ($p < .01$). Similarly, other models verified the theoretical expectations using CGV's dataset as an alternative to GWF's coding of democracy and dictatorship.

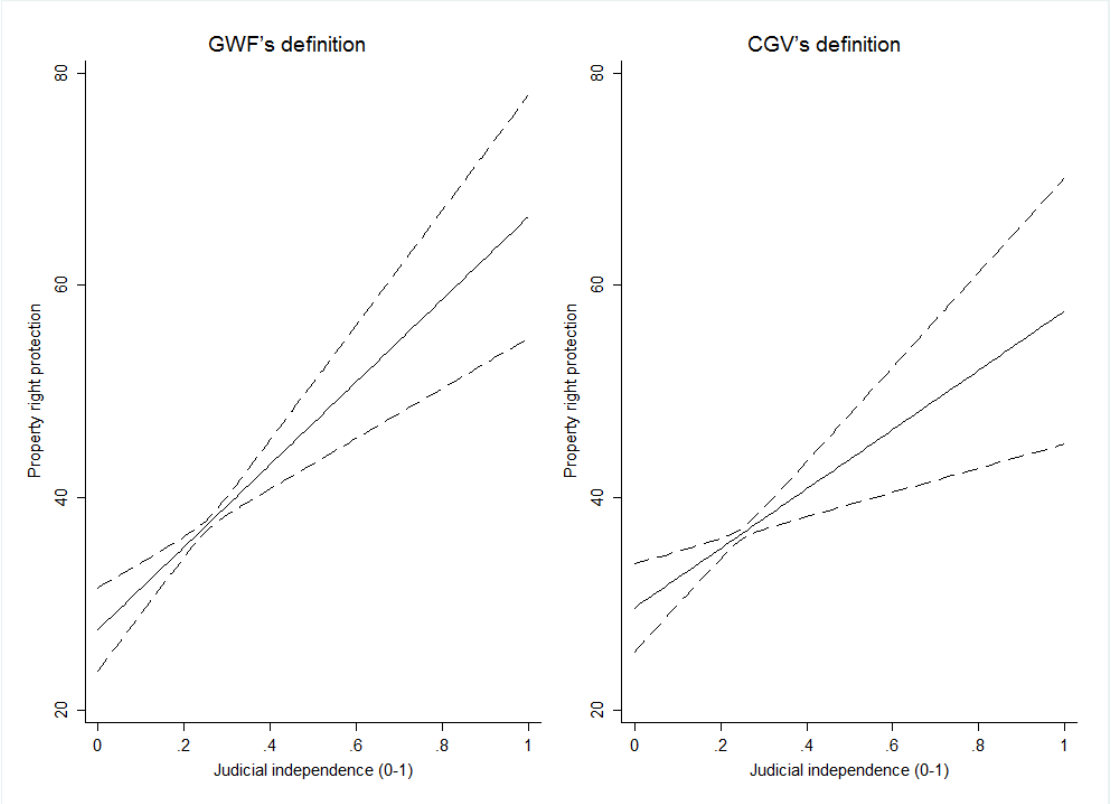

Figure M1. The positive role of authoritarian judiciary in property right protection in dictatorships with multiparty elections
Note: Regression coefficient of judicial independence: left panel (use GWF's definition): 38.919***, right panel (use CGV's definition): 28.016***. Regression coefficient in the univariate analysis: left panel: 42.822***, right panel: 37.207***. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Opposition unity, property right protection and economic growth

A more cohesive opposition increases a dictator's willingness to seek public support through an independent judiciary under which property rights do spur positive economic growth. It is thus expected that the effect of property rights on economic growth should be conditional on the extent to which the opposition is united. To test the proposed argument, this study operationalized the variables as follows. First, this research operationalized property right protection using the property right components of the index of economic freedom from 1995 from the Heritage Foundation while opposition unity as the sum of the squared seat shares of all parties except for those in the government using DPI's *HERFOPP* variable (0-1). The interaction term was

computed: “property rights protection × opposition unity.” Economic growth was measured as the annual percentage change in GDP from the World Bank’s Development Indicators.

The following regressions are used to estimate a country’s economic growth. First, I included the 1-year lagged logarithm of real GDP per capita to account for diminishing returns to capital, based on the basic assumptions of the neoclassical model. Second, there is mixed evidence regarding the effects of constitutional design on economic growth (Benhabib and Przeworski 2010; Gerring et al. 2009; Knutsen 2011). Thus, two types of constitutional systems—presidentialism and parliamentarism—were included. Third, I included into the analysis the duration of an autocrat. This is because dictators with long time horizons have a greater incentive to invest in public goods, which is associated with positive growth (Wright 2008b). Fourth, personalist regimes are less dependent on investment in the productive economy (Wright 2008a). This study thus controlled personalist rule as a dummy variable where 1 = *personalist rule* and 0 = *other types of dictatorships*. Fifth, I included the log of total population to capture positive as well as negative effects of population on productivity (Beck et al. 1999). Finally, I added previous democratic experiences to measure whether a regime has previously experienced democratic rule that can leave positive influences on the development of public infrastructure.

In Figure M2 displayed, the effect of property rights protection on economic growth was shown to be conditional on opposition unity. That is, the more united the opposition, the higher growth the effect, compared with its counterpart (e.g., at 1: 0.22, $p < .01$; at 0.8: 0.15, $p < .01$), and the results also

confirm my prediction of a positive growth effect of property rights protection conditional on opposition unity using CGV's dataset as an alternative to GWF's coding of democracy and dictatorship.

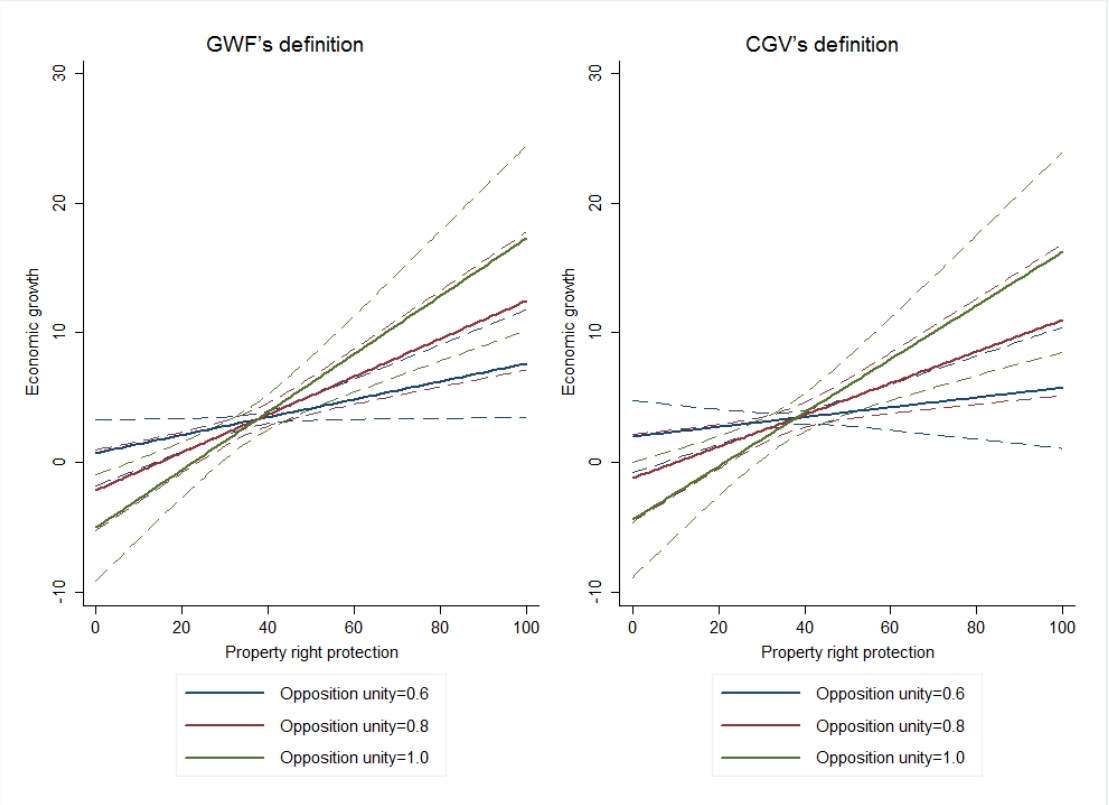

Figure M2. Conditional effect of property rights protection on economic growth in dictatorships with multiparty elections

Note: left panel, linear prediction (opposition unity=0.6): 0.069**; linear prediction (opposition unity=0.8): 0.146***; linear prediction (opposition unity=1): 0.223***. Right panel, linear prediction (opposition unity=0.6): 0.038; linear prediction (opposition unity=0.8): 0.122***; linear prediction (opposition unity=1): 0.207***. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The index of economic freedom from the Heritage Foundation does not span the full range between 1975 and 2010. It certainly constitutes with my research limitations. In future research, we could test theoretical expectations when data become available. The index, however, has advantage over other measures of property rights protection. For example, an alternative measure of property rights protection was from the Country Policy and Institutional Assessment, which measures the extent to which a country's policy and institutional framework supports private economic activity and the respect for

property rights. However, it provides the data from 2005. Further, existing research has used constitutional property rights protection (Bjørnskov 2015; Voigt and Gutmann 2013), which would be problematic. This measure reflects the degree to which property is promised according to the (written) constitutions of the coded countries but does not reflect that is protected based on a country's holistic legal framework such as the constitution, act, regulations, precedents, and judicial review. It is likely that judicial review, instead of the constitution, provide for a right to own property, transfer property freely, and limit the ability of the government to expropriate private property, especially for countries with common law in practice. For example, the Singaporean constitution does not provide for the right to property, but judicial review could have the effect of achieving economic freedom bringing against orders of compulsory land acquisition (Chua and Haynie 2016).

The study speaks to several central studies in judicial independence, property rights protection, and economic growth. Existing research confirms that the more independent judges are, the stronger are the protection of property rights (Berggren and Gutmann 2020; Voigt and Gutmann 2013), which is consistent with the finding that the role of the judiciary in property rights protection in dictatorships with multiparty elections, as shown in Figure S1. Thus, as democracies, the purpose of creating the court system in dictatorships that hold multiparty elections is to credibly commit to the masses that property rights protection will be maintained.

The literature finds that a positive economic growth effect of property rights once the judicial system is independent enough to guarantee their enforcement (Voigt and Gutmann 2013). For example, the economic success

of Singapore is built on the stability and fairness of its legal rules administered by impartial, independent and well-trained judges. The courts effectively protect investors' property rights, which brought to Singapore good returns from the flood of capital to buy up properties in the country (Lee 1995). In Vietnam, however, one can have state-sanctioned property rights that are not necessarily enforced by the courts but rests on social norm, local political interests and culture for adopting a evolutionary legal terms of property rights (Kim 2007). Ambiguous property rights status is an inhibitor of investment and economic growth. Our results further show the effect of property rights on economic growth to be conditional on the extent to which the opposition is united, as shown in Figure S2, suggesting that opposition unity is the driving force behind the autocrat's credible commitment to the masses.

Instrumental variable analysis

To eliminate endogeneity and confirm my arguments, this study integrated an instrumental variable (IV) consisting of the one-year lag of oil rents (% of GDP). A good IV should have a theoretical interpretation that it is expected to influence the endogenous variable but is unrelated to the outcome. However, finding valid instruments for opposition unity is by no means easy as political, economic and social variables that are correlated with opposition unity are very likely to influence the level of judicial independence. In this regard, a previous study examined how natural resources affected the severity of armed civil conflict, finding that opposition groups who wished to benefit from hydrocarbon production were more motivated to collaborate to achieve governmental defeat (Lujala 2009). Another study suggested that wealth

generated through oil receipts catalysed the creation and convergence of opposition, specifically through inequitable distribution and by providing potential opposition with the resources needed to overcome collective action against the regime (Okruhlik 1999). This makes it likely for huge oil rents to foster oppositional cooperation.

This research used the difference between the total value of crude oil production at world prices and total costs of production as a share of GDP as oil rents. I lagged the independent variable by one period to allow some time for its effect on opposition unity to emerge. A list of control variables, including constitutional design, the log of GDP per capita, GDP growth, the duration of an autocrat, personalist rule, the log of total population, previous democratic experiences, and government unity, was added. This research used two-stage least squares regression analysis.

Table M1 reveals a positive correlation between oil rents and the level of opposition unity between 1975 and 2010. A 10-percentage point increase in the value of one-year lag of oil rents (% of GDP) indicated a 0.06 increase in the level of opposition unity (0-1) (Model 2, $p < .01$). Our theoretical expectations were also confirmed omitting covariates in Model 2 that are not statistically significant (Model 3, 0.05 for a 10-percentage point increase in the value of one-year lag of oil rents, $p < .01$) or omitting all control variables that have missing values in order to keep all cases in the data (Model 4, 0.06 for a 10-percentage point increase in the value of one-year lag of oil rents, $p < .01$).

Table M1. Oil Rents and Opposition Unity, 1975–2010 (First Stage)

	Model (1) OU	Model (2) OU	Model (3) OU	Model (4) OU
Lagged oil rents (% of GDP)	0.005***	0.006***	0.005***	0.006***
	(0.002)	(0.002)	(0.002)	(0.002)
Government unity		-0.025	-0.021	
		(0.049)	(0.048)	
Presidentialism		-0.007	-0.013	-0.022
		(0.040)	(0.040)	(0.040)
Log GDP pc		0.022	0.018	
		(0.025)	(0.025)	
Growth		-0.003**		
		(0.001)		
Autocratic duration		0.001		0.002
		(0.003)		(0.003)
Personalist rule		-0.026	-0.032	0.003
		(0.081)	(0.058)	(0.074)
Log population		-0.148	-0.169	-0.126
		(0.142)	(0.138)	(0.139)
Previous democratic exp.		0.086		0.141
		(0.175)		(0.175)
No. of subjects	936	925	930	936
No. of groups	70	70	70	70
Years dummy	Yes	Yes	Yes	Yes
Adjusted R-squared	0.6168	0.6204	0.6213	0.6185
Prob>F	0.0000	0.0000	0.0000	0.0000

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$. OU: opposition unity.

Table M2 presents an original model committed to the problem of endogeneity by Durbin-Wu-Hausman test of endogeneity. When using an IV, the results are similar to the Ordinary Least Squares (OLS) estimation, with estimated coefficients much larger than in OLS (e.g., at Model 2, OLS: 0.026, $p < .05$; IV: 0.336, $p < .01$). The instrument was not weak comparing Cragg-Donald F Statistics with 10% relative bias of the 2SLS estimator we were willing to tolerate. Further, I can reject the weak instrument because the first-stage F statistics exceed 10.

Table M2. Opposition Unity and Judicial Independence, 1975–2010 (Second Stage)

	Model (1) JI	Model (2) JI	Model (3) JI	Model (4) JI
Opposition unity	0.244**	0.336***	0.360***	0.312***
	(0.112)	(0.128)	(0.131)	(0.117)
Government unity		0.037*	0.051**	
		(0.021)	(0.022)	
Presidentialism		-0.067***	-0.068***	-0.070***
		(0.017)	(0.018)	(0.017)
Log GDP pc		0.043***	0.048***	
		(0.011)	(0.011)	
Growth		0.001		
		(0.001)		
Autocratic duration		0.001		0.002**
		(0.001)		(0.001)
Personalist rule		-0.164***	-0.150***	-0.113***
		(0.035)	(0.026)	(0.031)
Log population		0.148**	0.120*	0.074
		(0.065)	(0.067)	(0.061)
Previous democratic exp.		-0.050		-0.026
		(0.075)		(0.073)
No. of subjects	936	925	930	936
No. of groups	70	70	70	70
Years dummy	Yes	Yes	Yes	Yes
Adjusted R-squared	0.8385	0.8174	0.8030	0.8228
Prob>F	0.0000	0.0000	0.0000	0.0000
DWH endogeneity test	5.441**	14.100***	15.866***	12.301***
Cragg-Donald F Statistics	12.030	11.271	11.616	12.659
Sargan Statistics	0 (exact)	0 (exact)	0 (exact)	0 (exact)

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$. JI: judicial independence.

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APPENDIX

A. list of dictatorships with multiparty elections, 1975-2010 (GWF)

Country	Start	End	Regime Types
Algeria	1990	1992	Party
	1997	2010	Military
Angola	1993	1997	Party
	2009	2010	Party
Armenia	1995	1998	Personal
	1999	2010	Personal
Azerbaijan	1994	2010	Personal
Bangladesh	1980	1982	Personal
	1987	1990	Personal
Belarus	1992	1994	Party
	1995	1997	Personal
	2005	2010	Personal
Botswana	1975	2010	Party
Brazil	1975	1985	Military
Burkina Faso	1979	1980	Personal
	1993	2010	Personal
Burundi	1997	2003	Military
Cambodia	1994	2010	Party
Cameroon	1991	2010	Personal
C.A. Republic	1993	1993	Military
	2006	2010	Personal
Chad	1998	2006	Personal
Congo-Brazzaville	2003	2010	Personal
Congo-Kinshasa	1991	1992	Personal
	2007	2010	Personal
Cote d'Ivoire	1991	1999	Party
	2000	2000	Personal
	2001	2010	Personal
Dominican Republic	1975	1978	Personal
Egypt	1980	2010	Party
El Salvador	1975	1979	Party
	1983	1994	Military
Ethiopia	1996	2010	Party
Gabon	1991	2010	Party
Gambia	1975	1994	Party
	1997	2010	Personal
Georgia	1993	2003	Personal
Ghana	1993	2000	Personal
Guatemala	1975	1982	Military
	1986	1995	Military
Guinea	1996	2008	Personal
Guinea Bissau	1995	1997	Personal
	2003	2003	Personal
Haiti	1980	1986	Personal
	1992	1994	Military
	2000	2004	Personal
Indonesia	1975	1999	Party
Iran	1975	1975	Monarchy
	1981	2010	n.a.
Iraq	1992	2003	Personal
Jordan	1993	2009	Monarchy
Kazakhstan	1994	1994	Personal
	1996	2010	Personal
Kenya	1975	1982	Party

	1993	2002	Party
Kyrgyzstan	1996	2005	Personal
	2006	2010	Personal
Lao	2003	2010	Party
Liberia	1986	1990	Personal
	1998	2003	Personal
Madagascar	1984	1993	Personal
	2010	2010	Personal
Malawi	1994	1994	Personal
Malaysia	1975	2010	Party
Mauritania	1992	2005	Personal
	2007	2007	Military
Mexico	1975	2000	Party
Mongolia	1991	1993	Party
Morocco	1978	2010	Monarchy
Mozambique	1995	2010	Party
Namibia	1991	2010	Party
Nicaragua	1975	1979	Personal
	1985	1990	Party
Niger	1997	1999	Personal
Nigeria	1993	1993	Military
Pakistan	1976	1977	Personal
	2003	2008	Military
Panama	1985	1989	Military
Paraguay	1975	1993	Party
Peru	1979	1979	Military
	1993	2000	Personal
Philippines	1979	1986	Personal
Republic of Korea	1975	1987	Military
Russia	1994	2010	Personal
Rwanda	1992	1994	Military
	2004	2010	Party
Senegal	1977	2000	Party
Sierra Leone	1975	1978	Party
	1992	1992	Party
	1998	1998	Personal
Singapore	1975	2010	Party
South Africa	1975	1994	Oligarchy
Soviet Union	1991	1991	Party
Sri Lanka	1979	1994	Party
Sudan	2001	2005	Personal
Syria	1975	2010	Party
Taiwan	1993	2000	Party
Tajikistan	1995	2010	Personal
Tanzania	1993	2010	Party
Thailand	1980	1988	Military
Togo	1993	2010	Personal
Tunisia	1982	2010	Party
Turkmenistan	1992	2010	Party
Uganda	1981	1985	Personal
	1997	2010	Personal
Uzbekistan	2000	2010	Party
Venezuela	2006	2010	Personal
Yemen	1994	2010	Personal
Yugoslavia	1993	2000	Party
Zambia	1997	2010	Party
Zimbabwe	1981	2010	Party

Note: this study relied on the measure of democracy and dictatorship advanced by Geddes et al. (2014). Whenever a non-democratic regime started if (1) an executive achieved power through undemocratic means, (2) the government achieved power through democratic means

but subsequently changed the formal or informal rules, or (3) competitive elections were held to choose the government but one or more parties for which substantial numbers of citizens would be expected to vote were banned. In this dataset, Geddes et al. (2014: 318) classified authoritarian regimes into party-based dictatorships, military regimes, personalist dictatorships, and monarchies. Further, a multi-party system was coded if a regime had a score greater than 4 on a 7-point measure of the legislative indices of electoral competitiveness (LIEC).

B. list of dictatorships with multiparty elections, 1975-2009 (CGV)

Country	Start	End	Regime Types
Algeria	1990	1992	Military
	1997	1999	Military
	2000	2009	Civilian
Angola	1993	1997	Civilian
	2009	2009	Civilian
Azerbaijan	1993	2009	Civilian
Bahrain	2007	2009	Royal
Bangladesh	1980	1982	Military
	2009	2009	Civilian
Belarus	1992	1997	Civilian
	2005	2009	Civilian
Bosnia–Herzegovina	2003	2009	Civilian
Botswana	1975	2008	Civilian
	2009	2009	Military
Brazil	1975	1985	Military
Burkina Faso	1979	1980	Military
	1993	2009	Military
Burundi	1997	2003	Military
	2004	2005	Civilian
Cambodia	1994	2009	Civilian
Cameroon	1991	2009	Civilian
C.A. Republic	1993	1993	Military
	2006	2009	Military
Chad	1998	2006	Military
Chile	1990	1990	Military
Comoro	1988	1990	Civilian
	1996	1999	Civilian
	2000	2004	Military
Congo-Brazzaville	1992	1992	Military
	2003	2009	Military
Congo-Kinshasa	1991	1992	Military
	2007	2009	Civilian
Cote d'Ivoire	1991	1999	Civilian
	2000	2000	Military
	2001	2009	Civilian
Cyprus	1975	1983	Civilian
Djibouti	1978	1981	Civilian
	1993	2009	Civilian
Ecuador	2001	2002	Civilian
Egypt	1980	2009	Military
El Salvador	1975	1979	Military
	1983	1984	Military
Equatorial Guinea	1993	2009	Military
Ethiopia	1996	2009	Civilian
Fiji	1975	1987	Civilian
	2002	2006	Civilian
Gabon	1991	2009	Civilian
Gambia	1975	1994	Civilian
	1997	2009	Military
Georgia	1993	2004	Civilian
Ghana	1993	1993	Military
Guatemala	1986	1986	Military
Guinea	1996	2008	Military
Guinea Bissau	1995	1997	Military
	2000	2000	Military
Guyana	1975	2009	Civilian

Haiti	1980	1986	Civilian
	1991	2009	Civilian
Honduras	1982	1982	Military
Indonesia	1975	1999	Military
Iran	1975	1975	Royal
	1981	2009	Civilian
Iraq	1992	2003	Civilian
	2006	2009	Military
Jordan	1993	2009	Royal
Kazakhstan	1994	1994	Civilian
	1996	2009	Civilian
Kenya	1975	1982	Civilian
	1993	1998	Civilian
Kyrgyzstan	1996	2005	Civilian
Lao	2003	2009	Military
Lebanon	1977	1977	Civilian
	1994	1998	Civilian
	1999	2007	Military
	2008	2008	Civilian
	2009	2009	Military
Lesotho	1994	2009	Civilian
Liberia	1986	1990	Military
	1998	2003	Civilian
	2006	2006	Civilian
Madagascar	1984	1993	Military
Malawi	1994	1994	Civilian
Malaysia	1975	2009	Military
Mauritania	1992	2005	Military
	2007	2007	Military
Mexico	1975	2000	Civilian
Morocco	1978	2009	Royal
Mozambique	1995	2009	Civilian
Namibia	1991	2009	Civilian
Nicaragua	1975	1979	Military
Niger	1997	2000	Military
Nigeria	1993	1993	Military
Pakistan	2003	2008	Military
Panama	1985	1989	Military
Paraguay	1975	1989	Military
Peru	1979	1979	Military
	1991	2001	Civilian
Philippines	1979	1986	Civilian
Republic of Korea	1975	1988	Military
Russia	1992	2009	Civilian
Rwanda	1992	1994	Military
	2004	2009	Military
Samoa	1983	2009	Royal
Senegal	1977	2000	Civilian
Sierra Leone	1975	1978	Civilian
	1992	1992	Military
	1998	1998	Military
Singapore	1975	2004	Civilian
	2005	2009	Military
South Africa	1975	2009	Civilian
Soviet Union	1991	1991	Civilian
Sri Lanka	1978	1989	Civilian
Sudan	2001	2005	Military
Suriname	1988	1988	Military
	1991	1991	Military
Syria	1975	2009	Military

Taiwan	1993	1996	Civilian
Tajikistan	1995	2009	Civilian
Tanzania	1993	2005	Civilian
	2006	2009	Military
Thailand	2008	2008	Military
Togo	1993	2005	Military
	2006	2009	Civilian
Tunisia	1982	1987	Civilian
	1988	2009	Military
Turkmenistan	1992	2009	Civilian
Uganda	1997	2009	Civilian
Uruguay	1985	1985	Military
Uzbekistan	2000	2009	Civilian
Yemen	1994	2009	Military
Yugoslavia	1993	2000	Civilian
Zambia	1992	2009	Civilian
Zimbabwe	1975	1979	Civilian
	1981	2009	Civilian

Note: regarding a test for robustness, this study used Cheibub et al.'s (2010) definition of democracy and dictatorship. A democracy was defined if (1) the chief executive is popularly elected or chosen by a body itself popularly elected, (2) the legislature is popularly elected, (3) multiple parties legally allowed can compete in elections, and (4) alternation in power occurs, and the rules under which it occurs are the same as those that brought incumbents to power. In this dataset, Cheibub et al. (2010) classified authoritarian regimes into civilian dictatorship, military, and royal dictatorship. Further, a multi-party system was coded if a regime had a score greater than 4 on a 7-point measure of the legislative indices of electoral competitiveness (LIEC).

C. list of legislative elections the major opposition boycotted in dictatorships with multiparty elections, 1975-2010

Country	NELDA	Author's coding	Vdem
Algeria	1997		No
	2002	Five opposition parties boycotted the election, including the Socialist Forces Front (FFS), Rally for Culture and Democracy (RCD), Republican National Alliance (ANR), Movement of Democrats and Socialists (MDS), and the Socialist Workers' Party (PST)[1]	No
	2007	Several opposition parties, including the FFS, the main factions of the Movement for National Reform (MNR), and the leftist MDS, boycotted the election[2]	No
Azerbaijan	1995/1996		No
	2000/2001		No
Bangladesh	1986	Bangladesh Nationalist Party (BNP) boycotted the election[3]	Yes
	1988	Three leading opposition groups, including the Awami League (an eight-party alliance) headed by Sheikha Hasina Wajed, the Moslem Jammai-i-Islami, and the right-wing BNP, boycotted the election[4]	Yes
Belarus	2008		No
Cambodia	1993	The Party of Democratic Kampuchea, a political continuation of the radical Khmer Rouge guerrilla group that ruled in the 1970s, boycotted the election[5]	Yes
Cameroon	1992	Three large opposition parties, including the Social Democratic Party, the Democratic Union, and the Union of Democratic Forces, boycotted the election[6]	Yes
Chad		2002: two important opposition parties, the Union for Democracy and the Republic (UDR), and the Party for Liberty and Development (PLD), boycotted the election[7]	Yes
Congo-Brazzaville	2002	The three leaders of Pan-African Union for Social Democracy (UPADS), the Congolese Movement for Democracy and Integral Development (MCDDI), and Rally for Democracy and Development (RDD) issued a joint request to their militants to boycott the legislative polls	Yes
	2007	About 40 opposition parties, including the Reflection for a New National Order and the General Movement for the Construction of the Congo, boycotted the election[8]	Yes
Congo (DRC)		2006: Étienne Tshisekedi and his party, the Union for Democracy and Social Progress (UDPS), boycotted the election[9]	Yes
Cote d'Ivoire	2000/2001	The former Prime Minister Alassane Ouattara barred from standing in the legislative elections urged voters for his party, Rally of the Republicans (RDR), to boycott the election[10]	Yes
Dominican Republic	1974	The "Santiago Agreement", an opposition coalition of extreme right and left-wing groups, carried out its threat to boycott unless the Central Electoral Board reversed its ruling allowing citizens to vote at any of the nation's 5,000 polling booths[11]	Yes
Egypt	1990	The main opposition, including Al-Wafd Party, Socialist Labour Party (SLP), and Liberal Socialist Party (LSP), which claimed that the reformed Electoral Law failed to guarantee free elections and boycotted the election[12]	1984: Yes 1987: Yes 1990: Yes
	2010	Former Director General of the International Atomic Energy Agency Mohamed ElBaradei urged all opposition forces to boycott the elections. Former presidential candidate, Ayman Nour, announced that his Al-Ghad Party would boycott, while Al-Wafd Party and the Muslim Brotherhood disavowed boycott[13]	1995: Yes 2010: Yes
El Salvador	1976	All the opposition boycotted the election as a result of massive electoral fraud[14]	Yes
	1978	The National Opposition Union (UNO) boycotted the election, and only one opposition party, the right-wing People's Party (PPS), contested with the ruling National Conciliation Party (PCN)[15]	No
	1982	Leftist parties boycotted the election[16]	No
	1985	The armed left-wing Frente Farabundo Marti para la Liberacion Nacional (FMLN) insurgency refused to participate	Yes
	1988	The Revolutionary Democratic Front (FDR), an leftist guerrillas movement, called for an election boycott[17]	Yes
Ethiopia	1995	Four of the seven national parties boycotted the election, alleging unequal conditions for the various contending	Yes

		groups[18]	
Gabon	1990	The leader of the largest opposition party, the Bûcherons (a MORENA breakaway faction), declared that the party would boycott the second round of the new elections	1990: No 1996: Yes
	2001	Some ten opposition parties boycotted the election[19]	2001: Yes 2006: Yes
Gambia	2002	Several opposition parties, including the Ousainou Darboe's United Democratic Party (UDP), boycotted the election[20]	No
Georgia		1995: Some leftist parties, especially the "Zviadists", supporters of the late Communist president Zviad Gamsakhurdia, boycotted the election[21]	Yes
Ghana	1992	The four parties, including People's National Convention, National Independence Party, People's Heritage Party, and New Patriotic Party boycotted the election[22]	Yes
Guatemala			1974: Yes 1978: Yes
Guinea	2002	The so-called "radical" opposition parties, including the Guinean People's Rally (RPG) and the Union of Republic Forces (UFR), refused to take part in which they viewed as an "electoral farce"[23]	Yes
Haiti	2000	All the major opposition parties boycotted the second round of the election after having denounced incidents involving fraud in the first round[24]	1979: Yes 1984: Yes 1991: Yes 2000: Yes
Iraq			1996: Yes 2000: Yes
Jordan	1997	Islamic Action Front (IAF) boycotted the election to protest election reforms[25]	No
Kazakhstan	1995	Many opposition parties boycotted the election[26]	No
Mauritania	1992	Six opposition parties, including the largest, the Union of Democratic Forces (UFD), boycotted the election	Yes
	1996	The UFD boycotted the second round of the election[27]	Yes
Morocco	1977	Some opposition parties, including the National Union of Popular Forces (UNFP), boycotted the election	No
	1993	Some leftists opposition called for boycott	No
Nicaragua	1984	The leading right-wing parties, Nicaraguan Democratic Coordinating Committee (CDN), boycotted the election[28]	Yes
Niger	1996	Eight opposition parties, grouped within the Front for the Restoration of Democracy (FRDD), decided to boycott the election due to several of their unfulfilled conditions[29]	No
Pakistan			2002: Yes
Paraguay	1983	The Authentic Liberal Radical Party (PLRA), which aligned with three other small centrist parties, boycotted the election[30]	Yes
	1988	Opposition groups persuaded Paraguayans to boycott the presidential and legislative elections[31]	Yes
Peru	1978	Fernando Belaúnde Terry's Popular Action Party (AP) boycotted the constituent assembly election[32]	Yes
		1992: The main opposition parties, including the two largest, the American Popular Revolutionary Alliance and the Popular Action Party, called on Peruvians to boycott the election[33]	Yes
Philippines	1984	Many opposition leaders, including Agapito Aquino, brother of the opposition leader Benigno S. Aquino Jr. who was assassinated, boycotted the election[34]	Yes
Republic of Korea	1981		No
Rwanda	2008	All the opposition boycotted the election[35]	No
Senegal	1978	The National Democratic Rally (RND) leader, Cheikh Anta Diop, called for a boycott[36]	No
	1983	Six recently-legalized smaller parties, mostly of the far Left, namely the Senegalese Republican Movement (MRS), the Revolutionary Movement for the New Democracy (And-Jëf), and the Workers' Communist League, boycotted the election	No
	1988	Part of the opposition decided to boycott the election[37]	No
Singapore	1980	Barisan Sosialis opposed elections from 1965 up to 1980 because they did not agree with separation from Malaysia	No
South Africa	1981	The Natal Indian Congress led Indians who reject the Government's brand of ethnic politics to boycott[38]	No
	1984	United Democratic Front (UDF) led Indian community to boycott the election over the creation of a tricameral parliament consisting of White, Coloured, and Indian chambers[39]	No
	1987	Several anti-apartheid leaders issued calls for an election boycott[40]	No
	1989	Indians and coloreds boycotted, and black South Africans called for boycotts[41]	No
Sri Lanka	1989	The Janatha Vimukthi Peramuna (JVP), the extremist	Yes

		Sinhala organisation, and the Liberation Tigers of Tamil Eelam (LTTE), the militant Tamil group demanding a separate homeland in the north-east, called for a boycott of the election[42]	
Sudan	2000	All the main opposition parties, including the Umma Party, the Democratic Unionist Party (DUP), and the Popular National Congress (PNC), boycotted the election[43]	Yes
Syria	1981	The Muslim Brotherhood was leading an armed insurgency against the government at the time	1977: Yes
			1981: Yes
		2003: Five new opposition political groupings boycotted the poll, arguing the process was not democratic[44]	1986: Yes
			1990: Yes
			1994: Yes
			1998: Yes
			2003: Yes
	2007	The opposition in exile boycotted elections, describing it as a farce[45]	Yes
Tajikistan	1995	The elections were widely boycotted by opponents to President Rakhamanov, including the newly formed Party of Popular Unity and Justice headed by Abdumalik Abdullojanov[46]	Yes
Tanzania	2000	The second round of legislative elections in Zanzibar was held because the first round results were annulled in this area. The Civic United Front (CUF) boycotted this round due to concerns that there were irregularities in the election[47]	No
Togo	1994	One major opposition party, the Union of the Forces of Change (UFC), called for a boycott of the polls[48]	Yes
	1999	All eight opposition parties boycotted the election[49]	Yes
	2002	Under the umbrella of the "Coalition of Democratic Forces", nine opposition parties urged the public to boycott the elections[50]	Yes
Tunisia	1986	All opposition parties boycotted the poll due to alleged electoral irregularities[51]	Yes
	1994		Yes
	1999		Yes
	2004	The Progressive Democratic Party (PDP), an opposition party, boycotted the election[52]	Yes
Venezuela	2005	Five major opposition parties boycotted the election[53]	No
Yemen	1997	Several opposition parties, including the Yemeni Socialist Party, boycotted the election[54]	Yes
Yugoslavia	1992	Political parties of ethnic Kosovo Albanians, namely the Democratic League of Kosovo (LDK), boycotted the election[55]	No
	1996	Several parties, including the Democratic Party, the Democratic Party of Serbia, the Civic Alliance, and most Kosovo Albanians boycotted the election[56]	No
Zambia	1996	The main opposition party, the United National Independence Party (UNIP), led by former Zambian President Kenneth Kuanda, boycotted the election[57]	Yes
Zimbabwe	1980		No
	1990		No
	1995	Four parties boycotted the elections due to their displeasure with the Constitution and the Electoral Act which they felt gave too much power to the ruling party in deciding the conduct of the polls[58]	No
	2000		No

Note: the study coded elections that the major opposition had boycotted using data obtained from the following sources. Further, I used National Elections across Democracy and Autocracy (NELDA)'s *NELDA14* variable in which a "Yes" was coded if at least some opposition leaders announced and carried out a public boycott of the election while a "No" was coded if not. Finally, I used Varieties of Democracy (V-Dem)'s *v2elboycot* variable (ordinal, 0-4). I converted it into a binary variable where a "Yes" was coded if (1) all opposition parties and candidates boycotted the election; or (2) some but not all opposition parties or candidates boycotted, and they were not relatively insignificant ones while a "No" was coded if (1) no parties or candidates boycotted the election; or (2) a few opposition parties or candidates boycotted and they were relatively insignificant ones.

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D. Comparison of different coding on legislative elections the major opposition boycotted in dictatorships with multiparty elections, 1975-2010

NELDA boycott not coded as Author's coding on boycott	Author's coding on boycott not coded as NELDA boycott	NELDA, Vdem, and Author's coding on boycott
Algeria 1997	Chad 2002	Bangladesh 1986
Azerbaijan 1995/1996	Congo (DRC) 2006	Bangladesh 1988
Azerbaijan 2000/2001	Georgia 1995	Cambodia 1993
Belarus 2008	Peru 1992	Cameroon 1992
Republic of Korea 1981	Syria 2003	Congo-Brazzaville 2002
Tunisia 1994		Congo-Brazzaville 2007
Tunisia 1999		Cote d'Ivoire 2000/2001
Zimbabwe 1980		Dominican Republic 1974
Zimbabwe 1990		Egypt 1990
Zimbabwe 2000		Egypt 2010
		El Salvador 1976
		El Salvador 1985
		El Salvador 1988
		Ethiopia 1995
		Gabon 2001
		Ghana 1992
		Guinea 2002
		Haiti 2000
		Mauritania 1992
		Mauritania 1996
		Nicaragua 1984
		Paraguay 1983
		Paraguay 1988
		Peru 1978
		Philippines 1984
		Sri Lanka 1989
		Sudan 2000
		Syria 1981
		Syria 2007
		Tajikistan 1995
		Togo 1994
		Togo 1999
		Togo 2002
		Tunisia 1986
		Tunisia 2004
		Yemen 1997
		Zambia 1996

Note: see Appendix C.

E. list of presidential elections in dictatorships with multiparty elections, 1975-2010

Country	Date	President (% in all candidates)	Runner-up (% in other candidates)	Boycott
Afghanistan	2009	Hamid Karzai (2001-, 49.67%)	Abdullah Abdullah (60.78%) *Note*: The Taliban called for a boycott of the election	Yes
Algeria	1995	Liamine Zéroual (1995-1999, 61%)	Mahfoud Nahnah (65.59%) *Note*: three major parties boycotted the election	Yes
	1999	Abdelaziz Bouteflika (1999-, 73.8%)	Ahmed Taleb Ibrahimi (53.64%) *Note*: major opposition boycotted, but their names remained on the ballot papers	Yes
	2004	Abdelaziz Bouteflika (1999-, 85%)	Ali Benflis (42.8%) *Note*: the Kabyle population boycotted the election	Yes
	2009	Abdelaziz Bouteflika (1999-, 90.24%)	Louisa Hanoune (43.89%) *Note*: The Rally for Culture and Democracy boycotted the election	Yes
Angola	1992	José Eduardo dos Santos (1979-, 49.57%)	Jonas Malheiro Savimbi (79.46%)	No
Armenia	1996	Levon Ter-Petrosyan (1991-1998, 51.3%)	Vazgen Mikaeli Manukyan (84.19%)	No
	1998	Robert Kocharyan (1998-2008, 38.5%)	Karen Demirchyan (49.54%)	No
	2003	Robert Kocharyan (1998-2008, 49.48%)	Stepan Demirchyan (55.87%)	No
	2008	Serzh Sargsyan (2008-, 52.82%)	Levon Ter-Petrosyan (45.6%)	No
Azerbaijan	1993	Heydar Aliyev (1993-2003, 98.8%)	Kerar Abilov (86.84%) *Note*: almost all opposition leaders boycotted the election	Yes
	1998	Heydar Aliyev (1993-2003, 77.6%)	Etibar Mammadov (52.83%) *Note*: five opposition leaders boycotted the election	Yes
	2003	Ilham Aliyev (2003-, 75.38%)	Isa Gambar (61.29%)	No
	2008	Ilham Aliyev (2003-, 87.34%)	Igbal Aghazade (25.4%) *Note*: several major opposition parties boycotted the election	Yes
Bangladesh	1978	Ziaur Rahman (1977-1981, 76.6%)	Muhammad Ataul Gani Osmani (92.86%)	No
	1981	Abdus Sattar (1981-1982, 65.5%) *Note*: deposed by a coup d'état	Kamal Hossain (75.41%)	No
	1986	Hussain Muhammad Ershad (1983-1990, 84.1%)	Mauluna Mohammadullah (36.65%) *Note*: Bangladesh Nationalist Party boycotted the election	Yes
Belarus	1994	Alexander Lukashenko (1994-, 45.8%)	Vyacheslav Kebich (32.62%)	No
	2001	Alexander Lukashenko (1994-, 77.4%)	Uładzimir Hančaryk (86.3%)	No
	2006	Alexander Lukashenko (1994-, 84.4%)	Alaksandar Milinkievič (51.75%)	No
	2010	Alexander Lukashenko (1994-, 79.7%)	Andrei Sannikov (18.74%)	No
Bolivia	1978	Juan Pereda (1978-1978, 50.9%) *Note*: the Electoral Court annulled the results, followed by a military coup	Hernán Siles Zuazo (51.94%)	No
Burkina Faso	1978	Sangoulé Lamizana (1978-1980, 42.2%)	Macaire Ouédraogo (43.6%)	No
	1998	Blaise Compaoré (1987-, 87.5%)	Ram Ouédraogo (53.03%) *Note*: the umbrella of the February 14 Group boycotted the election	Yes
	2005	Blaise Compaoré (1987-, 80.35%)	Bénéwendé Stanislas Sankara (24.82%)	No
	2010	Blaise Compaoré (1987-, 80.2%)	Hama Arba Diallo (41.35%)	No

Burundi	1993	Melchior Ndadaye (1993-1993, 65.68%) *Note*: assassinated during a military coup by elements of the predominantly Tutsi army.	Pierre Buyoya (95.74%)	No
Cameroon	1992	Paul Biya (1982-, 40%)	John Fru Ndi (59.92%)	No
	1997	Paul Biya (1982-, 92.57%)	Henri Hogbe Nlend (33.71%) *Note*: three main opposition parties boycotted the election	Yes
	2004	Paul Biya (1982-, 70.92%)	John Fru Ndi (59.85%)	No
C.A. Republic	1981	David Dacko (1979-1981, 51.10%) *Note*: deposed by a coup d'état	Ange-Félix Patassé (79.27%) *Note*: another potential candidate, Jean Tandalet Ozi Okito of the Central African Socialist Party, withdrew his candidature, stating that the elections were being held prematurely	Yes
	2005	François Bozizé (2003-, 42.97%)	Martin Ziguélé (41.26%)	No
Chad	1996	Idriss Déby (1990-, 43.82%)	Wadel Abdelkader Kamougué (22.07%)	No
	2001	Idriss Déby (1990-, 63.17%)	Ngarlejy Yorongar (44.39%)	No
	2006	Idriss Déby (1990-, 64.67%)	Delwa Kassiré Koumakoye (42.83%) *Note*: most parties boycotted in response to Déby's decision to run for a third term	Yes
Congo	2002	Denis Sassou Nguesso (1997-, 89.4%)	Kignoumbi Kia Mboungou (26.42%) *Note*: the main opposition leaders were in exile, prevented from returning to Congo by legal convictions. The only important opposition figure, André Milongo of the Union for Democracy and the Republic, withdrew before the election	Yes
	2009	Denis Sassou Nguesso (1997-, 78.6%)	Kignoumbi Kia Mboungou (34.89%) *Note*: six opposition leaders boycotted the election	Yes
Congo (DRC)	2006	Joseph Kabila (2001-, 44.81%)	Jean-Pierre Bemba (32.81%)	No
Cote d'Ivoire	1990	Félix Houphouët-Boigny (1960-1993, 81.68%) *Note*: died in office	Laurent Gbagbo (100%)	No
	1995	Henri Konan Bédié (1993-1999, 96%) *Note*: deposed by a coup d'état	Francis Wodié (100%) *Note*: the FPI and RDR boycotted the election in protest of new electoral rules	Yes
	2000	Laurent Gbagbo (2000-2011, 59.4%)	Robert Guéï (80.51%) *Note*: the RDR and PDCI-RCA boycotted the election in response to the exclusion of their candidates	Yes
	2010	Laurent Gbagbo (2000-2011, 38.04%) *Note*: arrested by backers of Alassane Ouattara after a short period of civil conflict	Alassane Ouattara (51.76%)	No
Egypt	2005	Hosni Mubarak (1981-2011, 88.6%) *Note*: resigned in anti-Mubarak protesters, and power was turned over to the Egyptian military	Ayman Nour (72.28%)	No
El Salvador	1977	Carlos Humberto Romero (1977-1979, 67.3%) *Note*: deposed by a coup d'état	Ernesto Antonio Claramount Roseville (100%)	No
	1984	José Napoleón Duarte (1984-1989, 43.41%) *Note*: hand power over constitutionally, and died in 1990	Roberto D' Aubuisson (52.60%) *Note*: Leftist leaders boycotted the election.	Yes

	1989	Alfredo Cristiani (1989-1994, 53.82%) *Note*: retired from politics in 1994	Fidel Chávez Mena (79.02%) *Note*: FSLN called for a boycott of the election	Yes
Gabon	1993	Omar Bongo Ondimba (1967-2009, 51.2%)	Paul Mba Abessole (34.69%)	No
	1998	Omar Bongo Ondimba (1967-2009, 66.9%)	Pierre Mamboundou (49.81%)	No
	2005	Omar Bongo Ondimba (1967-2009, 79.18%) *Note*: died in office	Pierre Mamboundou (65.37%)	No
	2009	Ali Bongo Ondimba (2009-, 41.73%)	André Mba Obame (44.41%)	No
Gambia	1982	Dawda Jawara (1970-1994, 72.44%)	Sheriff Mustapha Dibba (100%)	No
	1987	Dawda Jawara (1970-1994, 59.18%)	Sheriff Mustapha Dibba (67.39%)	No
	1992	Dawda Jawara (1970-1994, 58.48%) *Note*: deposed by a coup d'état	Sheriff Mustapha Dibba (53.48%)	No
	1996	Yahya Jammeh (1994-, 55.77%)	Ousainou Darboe (81.03%)	No
	2001	Yahya Jammeh (1994-, 52.84%)	Ousainou Darboe (69.11%)	No
	2006	Yahya Jammeh (1994-, 67.3%)	Ousainou Darboe (81.65%)	No
Georgia	1991	Zviad Gamsakhurdia (1991-1992, 71.5%) *Note*: deposed by a coup d'état	Valerian Advadze (66.06%)	No
	1995	Eduard Shevardnadze (1995-2003, 77%)	Jumber Patiashvili (87.35%)	No
	2000	Eduard Shevardnadze (1995-2003, 71.5%) *Note*: resigned in mass demonstrations	Jumber Patiashvili (95.14%)	No
Ghana	1992	Jerry Rawlings (1981-2001, 58.4%)	Albert Adu Boahen (72.80%)	No
	1996	Jerry Rawlings (1981-2001, 57.4%)	John Kufuor (93.07%)	No
Guatemala	1978	Fernando Romeo Lucas García (1978-1982, 40.33%) *Note*: No candidate received more than 50% of the vote, elected by the Congress	Enrique Peralta Azurdia (56.85%)	No
	1982	Ángel Aníbal Guevara (1982-1982, 38.86%) *Note*: deposed by a coup d'état	Mario Sandoval Alarcón (46.20%) *Note*: the left-wing United Revolutionary Front (FUR) decided not to participate in the presidential elections because of the numerous assassinations of many of its leaders and activists in recent previous years	Yes
	1985	Vinicio Cerezo (1986-1991, 38.65%)	Jorge Carpio Nicolle (32.97%)	No
	1990	Jorge Serrano Elías (1991-1993, 24.1%) *Note*: resigned in strong protests, combined with international pressure, and the army's enforcement of the decisions of the Constitutional Court	Jorge Carpio Nicolle (33.90%)	No
Guinea	1993	Lansana Conté (1984-2008, 51.70 %)	Alpha Condé (40.49%) *Note*: Changement Démocratique, a coalition of 30 parties, called for a boycott of the poll	Yes
	1998	Lansana Conté (1984-2008, 56.1%)	Mamadou Bah (56.11%)	No
	2003	Lansana Conté (1984-2008, 95.6%) *Note*: died in office, followed by a coup d'état	Mamadou Bhoye Barry (100%) *Note*: the main opposition parties boycotted the election	Yes
	2010	Alpha Condé (2010-, 18.25%)	Cellou Dalein Diallo (53.44%)	No
Guinea Bissau	1994	João Bernardo Vieira (1984-1999, 46.2%) *Note*: went into exile after a civil war	Kumba Ialá (40.66%)	No
Haiti	1988	Leslie Manigat (1988-1988, 50.2%) *Note*: deposed by a coup d'état	Hubert de Ronceray (39.56%) *Note*: four leading opposition candidates formed the Committee for Democratic Understanding with the aim of campaigning for a boycott of the election	Yes
	2000	Jean-Bertrand Aristide (2001-2004, 91.7%) *Note*: deposed by a coup d'état	Arnold Dumas (24.10%) *Note*: the opposition parties,	Yes

			organised into the recently created Convergence Démocratique, boycotted the election after disputing the results of the parliamentary elections	
Iran	1989	Akbar Hashemi Rafsanjani (1989-1997, 94.51%)	Abbas Sheibani (100%)	No
	1993	Akbar Hashemi Rafsanjani (1989-1997, 64%)	Ahmad Tavakkoli (67.5%)	No
	1997	Mohammad Khatami (1997-2005, 69.07%)	Ali Akbar Nategh-Nouri (80.54%)	No
	2001	Mohammad Khatami (1997-2005, 76.90%)	Ahmad Tavakkoli (72.97%)	No
	2005	Mahmoud Ahmadinejad (2005-, 19.43%)	Akbar Hashemi Rafsanjani (27.66%)	No
	2009	Mahmoud Ahmadinejad (2005-, 62.63%)	Mir-Hossein Mousavi (92.92%)	No
Kazakhstan	1999	Nursultan Nazarbayev (1991-, 81%)	Serikbolsyn Abdildin (66.85%) *Note*: the RPPK boycotted the election because its leader, Akezhan Kazhegeldin, was denied a spot on the ballot	Yes
	2005	Nursultan Nazarbayev (1991-, 91.15%)	Jarmahan Tuyaqbay (74.73%)	No
Kenya	1992	Daniel arap Moi (1978-2002, 36.6%)	Kenneth Matiba (40.54%)	No
	1997	Daniel arap Moi (1978-2002, 40.4%)	Mwai Kibaki (51.83%)	No
Kyrgyzstan	1995	Askar Akayev (1990-2005, 72.4%)	Absamat Masaliyev (93.41%)	No
	2000	Askar Akayev (1990-2005, 76.4%) *Note*: resigned in mass demonstrations	Omurbek Tekebayev (62.10%)	No
	2005	Kurmanbek Bakiyev (2005-2010, 88.9%)	Tursunbai Bakir Uulu (34.23%)	No
	2009	Kurmanbek Bakiyev (2005-2010, 76.12%) *Note*: resigned in mass demonstrations	Almazbek Atambayev (46.59%)	No
Liberia	1985	Samuel Doe (1980-1990, 50.93%) *Note*: assassinated in a civil war	Jackson Doe (53.90%)	No
	1997	Charles Taylor (1997-2003, 75.33%) *Note*: went into exile in a civil war	Ellen Johnson Sirleaf (38.83%)	No
Madagascar	1982	Didier Ratsiraka (1975-1993, 80.16%)	Monja Jaona (100%)	No
	1989	Didier Ratsiraka (1975-1993, 62.71%)	Manandafy Rakotonirina (51.83%)	No
Mauritania	1992	Maaouya Ould Sid'Ahmed Taya (1984-2005, 62.7%)	Ahmed Ould Daddah (88.60%)	No
	1997	Maaouya Ould Sid'Ahmed Taya (1984-2005, 90.94%)	Chbih Ould Cheikh Malainine (77.51%) *Note*: the main opposition parties boycotted the election in response to the government's refusal to allow the establishment of an independent electoral commission	Yes
	2003	Maaouya Ould Sid'Ahmed Taya (1984-2005, 67.0%) *Note*: deposed by a coup d'état	Mohamed Khouna Ould Haidalla (57.45%)	No
	2009	Mohamed Ould Abdel Aziz (2008-, 52.58%)	Messaoud Ould Boulkheir (34.35%)	No
Mexico	1976	José López Portillo (1976-1982, 100%)	*Note*: the opposition party PAN was going through internal conflicts, refusing to put forward a candidate in the election	Yes
	1982	Miguel de la Madrid (1982-1988, 74.3%)	Pablo Emilio Madero (63.89%)	No
	1988	Carlos Salinas de Gortari (1988-1994, 50.36%)	Cuauhtémoc Cárdenas (62.50%)	No
	1994	Ernesto Zedillo (1994-2000, 48.69%)	Diego Fernández de Cevallos (53.64%)	No
Mozambique	1994	Joaquim Chissano (1986-2005, 53.30%)	Afonso Dhlakama (72.23%)	No
	1999	Joaquim Chissano (1986-2005, 52.29%)	Afonso Dhlakama (100%)	No
	2004	Armando Guebuza (2005-, 63.74%)	Afonso Dhlakama (87.02%)	No

	2009	Armando Guebuza (2005-, 75.01%)	Afonso Dhlakama (65.64%)	No
Nicaragua	1984	Daniel Ortega (1979-1990, 66.97%)	Clemente Guido Chavez (42.52%) *Note*: the leading right-wing coalition, Coordinadora Democratica Nicaraguense, boycotted the election	Yes
Niger	1996	Ibrahim Baré Maïnassara (1996-1999, 66.97%) *Note*: assassinated at the airport of Niamey	Mahamane Ousmane (41.34%)	No
Nigeria	1993	Moshood Kashimawo Olawale Abiola (1993-1993, 58.36%) *Note*: deposed by a coup d'état	Bashir Tofa (100%)	No
Panama	1984	Nicolás Ardito Barletta (1984-1985, 46.98%) *Note*: resigned after serious discrepancies with the commanders at Defense Forces Headquarters	Arnulfo Arias (88.10%)	No
Paraguay	1978	Alfredo Stroessner (1954-1989, 90.8%)	Germán Acosta Caballero (59.74%) *Note*: many opposition leaders advocated that their supporters turn in blank ballots	Yes
	1983	Alfredo Stroessner (1954-1989, 91.0%)	Enzo Doldan (63.47%) *Note*: most of the legal opposition boycotted the election	Yes
	1988	Alfredo Stroessner (1954-1989, 89.6%) *Note*: deposed by a coup d'état	Luis María Vega (69.23%) *Note*: most of the legal opposition boycotted the election	Yes
	1989	Andrés Rodríguez (1989-1993, 76.59%)	Domingo Laíno (89.60%)	No
Peru	1995	Alberto Fujimori (1990-2000, 64.3%)	Javier Pérez de Cuéllar (60.27%)	No
Philippines	1981	Ferdinand Marcos (1965-1986, 88.02%) *Note*: resigned after the snap elections of 1986 and in mass demonstrations, return to democracy in 1987	Alejo Santos (68.88%) *Note*: most opposition parties boycotted the election as a sign of protest over the 1978 elections for the National Assembly	Yes
Russia	1996	Boris Yeltsin (1991-1999, 35.8%) *Note*: resigned in 1999	Gennady Zyuganov (51.86%)	No
	2000	Vladimir Putin (1999-2008, 53.44%)	Gennady Zyuganov (63.32%)	No
	2004	Vladimir Putin (1999-2008, 71.31%)	Nikolay Kharitonov (49.14%)	No
	2008	Dmitry Medvedev (2008-2012, 71.2%)	Gennady Zyuganov (62.73%)	No
Rwanda	2003	Paul Kagame (2000-, 95%)	Faustin Twagiramungu (73.21%)	No
	2010	Paul Kagame (2000-, 93.08%)	Jean Damascene Ntawukuriryayo (74.38%)	No
Senegal	1978	Léopold Sédar Senghor (1960-1980, 82.2%) *Note*: resigned by the end of 1980	Abdoulaye Wade (100%) *Note*: RND leader, Cheikh Anta Diop, called for a boycott	Yes
	1983	Abdou Diouf (1981-2000, 83.45%)	Abdoulaye Wade (89.38%) *Note*: MDP leader, Mamadou Dia, called for a boycott	Yes
	1988	Abdou Diouf (1981-2000, 73.20%)	Abdoulaye Wade (96.27%) *Note*: part of the opposition boycotted the election	Yes
	1993	Abdou Diouf (1981-2000, 58.40%)	Abdoulaye Wade (77.00%)	No
Serbia	1992	Slobodan Milošević (1991-1997, 53.24%)	Milan Panić (81.44%) *Note*: political parties of ethnic Kosovo Albanians boycotted the election	Yes
	1997	Milan Milutinović (1997-2002, 43.7%) *Note*: return to democracy in 2000	Vojislav Šešelj (57.17%) *Note*: several parties, including most Kosovo Albanians, boycotted the election by several parties, claiming that the elections would not be held	Yes

			under fair conditions	
Sri Lanka	1982	J. R. Jayewardene (1978-1989, 52.91%)	Hector Kobbekaduwa (82.97%)	No
	1988	Ranasinghe Premadasa (1989-1993, 50.43%) *Note*: assassinated in Colombo	Sirimavo Bandaranaike (90.67%)	No
Sudan	1996	Omar al-Bashir (1989-, 75.40%)	Abd al-Majid Sultan Kijab (0.99%) *Note*: the main opposition parties, including the Umma Party and the Democratic Unionist Party (DUP), boycotted the election	Yes
	2000	Omar al-Bashir (1989-, 86.5%)	Gaafar Nimeiry (72.73%) *Note*: all the main opposition parties boycotted the election	Yes
	2010	Omar al-Bashir (1989-, 68.24%)	Yasir Arman (68.29%) *Note*: several of the biggest opposition parties boycotted the election	Yes
Taiwan	1996	Lee Teng-hui (1988-2000, 54.00%)	Peng Ming-min (100%)	No
Tajikistan	1991	Rahmon Nabiyev (1991-1992, 59.5%) *Note*: deposed by a coup d'état	Davlat Khudonazarov (69.84%)	No
	1994	Emomali Rahmon (1992-, 59.5%)	Abdumalik Abdullajanov (100%) *Note*: the opposition forces boycotted the election because they were not allowed to form political parties and were effectively shut out of political activity prior to the election	Yes
	1999	Emomali Rahmon (1992-, 97.6%)	Davlat Usmon (100%)	No
	2006	Emomali Rahmon (1992-, 79.3%)	Olimzhon Boboyev (31.91%) *Note*: the Islamic Renaissance Party of Tajikistan, the Democratic Party, and the Social Democratic Party all boycotted the elections, refusing to accept the constitutional changes that allowed Rahmon to seek a third term	Yes
Tanzania	1995	Benjamin Mkapa (1995-2005, 61.82%)	Augustino Mrema (72.74%)	No
	2000	Benjamin Mkapa (1995-2005, 71.74%)	Ibrahim Lipumba (57.56%)	No
	2005	Jakaya Kikwete (2005-, 80.28%)	Ibrahim Lipumba (59.21%)	No
	2010	Jakaya Kikwete (2005-, 62.83%)	Willibrod Peter Slaa (72.77%)	No
Togo	1993	Gnassingbé Eyadéma (1967-2005, 96.5%)	Jacques Amouzou (53.20%) *Note*: two main opposition parties boycotted the election	Yes
	1998	Gnassingbé Eyadéma (1967-2005, 52.08%)	Gilchrist Olympio (71.32%)	No
	2003	Gnassingbé Eyadéma (1967-2005, 57.79%) *Note*: died in office	Emmanuel Bob-Akitani (79.80%)	No
	2005	Faure Gnassingbé (1967-2005, 60.22%)	Emmanuel Bob-Akitani (96.01%)	No
	2010	Faure Gnassingbé (1967-2005, 60.9%)	Jean-Pierre Fabre (86.77%)	No
Tunisia	1999	Zine El Abidine Ben Ali (1987-2011, 99.45%)	Mohemed Belhaj Amor (57.41%) *Note*: illegal parties boycotted the elections	Yes
	2004	Zine El Abidine Ben Ali (1987-2011, 94.49%)	Mohamed Bouchiha (68.49%) *Note*: illegal parties boycotted the elections	Yes
	2009	Zine El Abidine Ben Ali (1987-2011, 89.62%) *Note*: ousted from mass demonstrations	Mohemed Belhaj Amor (48.27%)	No
Turkmenistan	2007	Gurbanguly Berdimuhamedow (2007-, 89.23%)	Amanýaz Atajykow (29.80%)	No
Uganda	1996	Yoweri Museveni (1986-, 74.2%)	Paul Ssemogerere (91.99%)	No
	2001	Yoweri Museveni (1986-, 69.33%)	Kizza Besigye (90.71%)	No
	2006	Yoweri Museveni (1986-, 59.26%)	Kizza Besigye (91.77%)	No

Uzbekistan	1991	Islam Karimov (1991-, 87.1%)	Muhammad Salih (100%)	No
	2000	Islam Karimov (1991-, 95.7%)	Abdulhafiz Jalolov (100%)	No
	2007	Islam Karimov (1991-, 90.76%)	Asliddin Rustamov (35.38%)	No
Venezuela	2006	Hugo Chávez (1999-, 62.84%)	Manuel Rosales (95.79%)	No
Yemen	1999	Ali Abdullah Saleh (1990-2012, 96.2%)	Najeeb Qahtan Al-Sha'abi (100%) *Note*: the main opposition candidate, Ali Saleh Obad of the Yemeni Socialist Party, failed to gain enough support in the parliament, boycotting the election	Yes
	2006	Ali Abdullah Saleh (1990-2012, 77.17%) *Note*: resigned in mass demonstrations	Faisal Bin Shamlan (95.56%)	No
Zambia	1996	Frederick Chiluba (1991-2002, 72.59%)	Dean Mungomba (46.50%) *Note*: the main opposition party, the United National Independence Party, together with five other allied parties, following changes to the constitution, boycotted the election	Yes
	2001	Levy Mwanawasa (2002-2008, 29.15%)	Anderson Mazoka (38.39%)	No
	2006	Levy Mwanawasa (2002-2008, 42.98%) *Note*: died in office, return to democracy in 2008	Michael Sata (51.51%)	No
Zimbabwe	1990	Robert Mugabe (1987-, 83.05%)	Edgar Tekere (100%)	No
	1996	Robert Mugabe (1987-, 92.76%)	Abel Muzorewa (66.27%) *Note*: all candidates withdrew their candidacies shortly before the election due to threats of violence, though their names remained on the ballot	Yes
	2002	Robert Mugabe (1987-, 56.2%)	Morgan Tsvangirai (95.80%)	Yes
	2008	Robert Mugabe (1987-, 43.2%)	Morgan Tsvangirai (84.34%)	No

Note: this study measured opposition unity as the total number of votes of the top presidential candidate divided by that of other candidates of the opposition bloc using data of each election from the Psephos – Adam Carr's Election Archive, Election Data Handbooks by Dieter Nohlen and Wikipedia Election Lists by Country. For robustness, I excluded elections that the major opposition had boycotted using data from National Elections across Democracy and Autocracy (NELDA) because it is unknown if these opposition elites are willing to come together and propose common candidates for the specific goal of winning an election. Cases, shaded in gray, are excluded because of too short duration of an autocrat (deposed in the same year when winning the elections).

A Dictator's Gift

Dominant Party Regimes and Health Expenditures

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ABSTRACT

Background

A country's health expenditure significantly improves its population health status. This study aims to examine the determinants of health expenditure in dictatorships.

Methods

We designed a mixed methods research approach. First, we used panel data from 1995 to 2014 covering 99 countries (*n*=1,488). Fixed effects regression models were fitted to determine how different types of authoritarianism relate to health expenditure. Second, we chose Ivory Coast to apply the synthetic control methods for a case study. We constructed a synthetic Ivory Coast, combining other dominant party regimes to resemble the values of health expenditure predictors for Ivory Coast prior to a regime change from a dominant party system to personalist dictatorships in 2000.

Results

We found that dominant party autocracies, compared to non-dominant party regimes, increased health expenditure (% of GDP) (1.36 percentage point increase, CI = 0.59–2.12). The marginal effect, however, decreased when an autocrat in this type of regime held elections (0.86 percentage point decrease, CI = 0.20–1.52). Furthermore, we found the difference in health expenditure between the actual Ivory Coast and its synthetic version starts to grow following the regime change in 2000 (in 2000, actual: 6.00%, synthetic: 6.04%; in 2001, actual: 4.85%, synthetic: 5.99%), suggesting a pronounced negative effect of the government transition on Ivory Coast health expenditure.

Conclusion

The findings suggest that different forms of dictatorship are associated with varying levels of health expenditure. Where dictatorships rely on popular support, as is the case with dominant party dictatorships, health expenditure is generally greater.

Keywords dictator, dominant party regimes, election, health expenditure

INTRODUCTION

A country's health expenditure significantly improves its population health status, including life expectancy at birth, infant mortality rates, and other health outcome indicators (Alisa et al. 2014; Novignon et al. 2012; Nixon and Ulmann 2006). Although existing research confirms the significance of economic and social factors as determinants of health spending (Baltagi et al. 2017; Hitiris and Posnett 1992; Zweifel et al. 1999), there is lack of comparative works on how governance types influence health expenditure and cross-national analyses of authoritarian regimes. This study examines the determinants of health expenditure in dictatorships.

A dictatorship occurs when the chief executive is chosen in a regularised selection process within the political elite and, once in office, the autocrat exercises power with few institutional constraints. Drawing on scholarship on authoritarian regimes (Dukalskis and Gerschewski 2018), this paper will use the terms authoritarian regime, dictatorship, non-democratic regime and autocracy interchangeably, unless otherwise indicated.

We incorporate two factors – legitimation strategies and perceived threat – in explaining variations in health spending. First, the authoritarian incumbent must develop legitimation strategies to justify his/her right to rule, such as rules, tradition or custom, regime performance, and charisma (Weber 1958). If a ruling regime is largely tied to popular sovereignty – that is, its government is created and sustained by a large group of people – rulers tend to increase health spending. By contrast, if the leadership derives support from a narrower group, rulers are less inclined to improve population health but rather to benefit only that group. Second, the authoritarian

incumbent faces threats from regime outsiders wanting to replace existing institutions (Gandhi and Przeworski 2007). Higher levels of perceived threat, especially when outsiders sense regime change is possible and decide to challenge the government, cause rulers to transfer spending from health to managing the opposition.

Regime types matter. Dominant party rule, defined as policy control, leadership selection, and the security apparatus in the hands of a ruling party, is not based on support from a specific social group but on a monist vision of popular sovereignty (Kailitz 2013). In this concept, a single party reflects the common interest of the ruled and electoral competition of political alternatives is unnecessary. Because the party is the main channel of societal interest intermediation, the dictator needs to tie a large group of people to the regime elite, making politics more representative of different social groups. A personalist dictatorship, however, relies on charismatic leadership or extractive institution through which rents could be distributed to followers, thus legitimising its rule based on a narrower group centred on a dictator (Hyden 2013). Military regimes and monarchies represent institutions with specific foundations, and their priority is to guard the common interest of soldiers or the royal family. An example is the creation of military jurisdiction to guard military members' interest under Franco's rule (Ríos-Figueroa and Aguilar 2018). Different social groups are, thus, less likely to be recruited as the foundation of monarchies and military regimes. In conclusion, dictators in dominant party regimes, compared to other forms of autocracies, pay closer attention to the population health status on which the legitimate rule is based and tend to increase health expenditure.

Multiparty elections, however, decrease this marginal effect in dominant party regimes. A multiparty election is more likely to lead to democracy due to the emergence of an electoral alliance to challenge and defeat the incumbent (Donno 2013; Howard and Roessler 2006). This is because multiparty elections offer opposition forces a channel to express policy positions, develop the party organisations, foster their supporters, and unite different social forces, raising leaders' risk of electoral defeat. Previous research has also shown that multiparty elections provide key opposition forces with legislative representation through autonomous political parties, which are more likely to generate policy outcomes that cater to their preferences (Magaloni 2006). This co-opts opposition groups and enables the purchase of social peace. However, the legalisation of multiparty elections may make it less effective to co-opt the opposition. In fact, multiparty elections increase the risk that a leader will be ousted if the dictator allows candidates or parties from outside the regime to compete and, accordingly, gain more seats in legislatures. This is because they see the possibility to overthrow an autocrat and thus reject unity with the regime. In this context, some authoritarian regimes hold tightly controlled elections to obtain intended results.

Autocrats can use a variety of ways to defeat the opposition in elections. Through threats of or actual physical abuse and assassination, intimidation, limitation of political rights, or electoral frauds, authoritarian leaders ensure continued dominance (Levitsky and Way 2010; Magaloni 2010). However, such methods require money (Pepinsky 2007), and this is why economic recessions discourage such a regime from spending more in

buying votes and retaining patronage networks, providing a motive for elites to defect (Magaloni 2006; Reuter and Gandhi 2011). Thus, dictators in dominant party regimes holding multiparty elections tend to transfer government spending on healthcare to reduce opposition threats.

METHODS

The unit of analysis was ‘dictatorships.’ We used the Polity IV Project as the main source of dictatorship measures. The Polity IV data series scales regimes from -10 to +10 and we identified dictatorships as those with scores lower than 6 (<6), screening all countries between 1995 and 2014. Selection bias was mitigated by selecting the Polity scale rather than using Geddes, Wright, and Frantz’s (2014, 317-318, GWF) dataset to determine the universe of autocracies. GWF’s classification scheme includes minimal conditions for suffrage and party competition for coding democratic country-years. However, the level of party competition may be influenced by the strength of opposition, which then determines the dictator’s willingness to transfer health spending in order to manage the opposition. That is, a regime was defined as a dictatorship given the creation an unequal playing field, which can be achieved through factors such as budgetary transfers or targeted spending designed to influence election outcomes despite robust competition. In this way, their classification scheme for measuring a dictatorship included an assessment of whether the country exhibited higher levels of health expenditures, thus blurring the predicted relationship. By contrast, the Polity IV data distinguish between democracies and autocracies based on institutional characteristics rather than the dynamics of party

competition, which do not suffer from this problem. Further, the sample was chosen from the period's dataset because it includes nearly all data on the variables of interest, covariates and robustness checks.

Health expenditure was defined as the total country spending on health as a proportion of GDP. This study measured health expenditure using World Bank data. Dominant party regimes were defined as governments in which 'control over policy, leadership selection, and the security apparatus is in the hands of a ruling party (Geddes et al. 2014).' A dummy variable was created where 1 = dominant party dictatorships and 0 = otherwise. Furthermore, we follow Brownlee's operationalisation of Levitsky and Way's typology of dictatorships based on the existence of multiparty elections using data from the Database of Political Institutions (DPI) (Brownlee 2009; Levitsky and Way 2002). The DPI contains a 7-point measure of legislative indices of electoral competitiveness (LIEC). A dictatorship that holds multiparty elections was coded 1 if a regime has a score greater than 4 or, in terms of Levitsky and Way's typology, is an electoral authoritarian regime, where 5 = multiple parties are legal but only one party won seats, 6 = multiple parties won seats but the largest party won more than 75% of the seats, and 7 = largest party held less than 75% (Brownlee 2009). Control variables that influence health expenditure were then added, including economic development, economic growth, prevalence of HIV, and magnitudes of armed conflict. A summary of the variables, operationalisation of indicators, and data sources is shown in Supplementary Table 1.

We designed a mixed methods research approach. First, we used panel data from 1995 to 2014 covering 99 countries, a sample of 1,488

pooled time series, and cross section observations. Fixed effects regression models were used based on the results of the Hausman test. We used cluster-adjusted standard error where estimated variance of the parameters increases when the observations are in the same cluster, which accounts for within-cluster correlation. This was because regression model errors in different time periods for a given country may be correlated, and failure to control for within-cluster error correlation can lead to very misleadingly small standard errors (Cameron and Miller 2015). Further, to deal with reverse causality and allow some time for the effect of regime change on health expenditure to materialise, we lagged the two independent variables by one period. For robustness tests, this study changed the threshold for the determinant of dictatorships as those with Polity IV scores lower than 1 (<1). It, thus, excluded regimes with scores ranging from 5 to 1 because scholars cannot come to an agreement that they are dictatorships (Geddes et al. 2014). Furthermore, we compared the effects of dominant party regimes only with those of personalist dictatorships, which were defined as regimes in which ‘control over policy, leadership selection, and the security apparatus is in the hands of a narrower group centred on an individual dictator (Geddes et al. 2014). A better approach could have been to disaggregate the broad category of non-party regimes as data are available for this, but fewer cases of military regimes and monarchies produced large parameter estimates and standard errors. The study, therefore, focused on comparing the two types of dictatorships. The study also used GWF’s (2014) dataset to identify the universe of autocracies as an alternative to Polity IV data. Finally, some highlight there is some sort of inertia in government spending. It would be

useful to show that the results are robust to including a dependent variable lagged by one year in the empirical estimates.

The types of dictatorships can be influenced by unobserved factors simultaneously determining levels of health expenditure. To address this concern, we used the instrumental variable two stage least squares analysis. A good instrumental variable (IV) should have a theoretical interpretation that it was expected to influence the endogenous variable but was unrelated to the outcome. Thus, we used one exogenous variable, autocratic constitutional design, to instrument regime types. The reason for this choice is autocratic parliamentary regimes, compared to presidential or semi-presidential dictatorships, were more likely to evolve into dominant party regimes (Yan 2020). However, current research cannot provide clear arguments and evidence on the effect of autocratic constitutional design on the values of health expenditure. We, thus, introduced a dummy variable coded 1 for parliamentarism and 0 for others.

Second, we applied synthetic control methods for causal inference in comparative case studies, constructing a synthetic Ivory Coast by combining other dominant party regimes resembling the values of health expenditure predictors for Ivory Coast prior to a regime change from a dominant party system to personalist dictatorships in 2000. We chose Ivory Coast because it was the only country experiencing such types of regime change. Further, we selected comparison countries and their weighting based on a weighted average of the available countries that can minimise the mean square error of the synthetic control estimator (Abadie 2010; 2015). Supplementary Table 5 shows the weight of each country in the synthetic Ivory Coast.

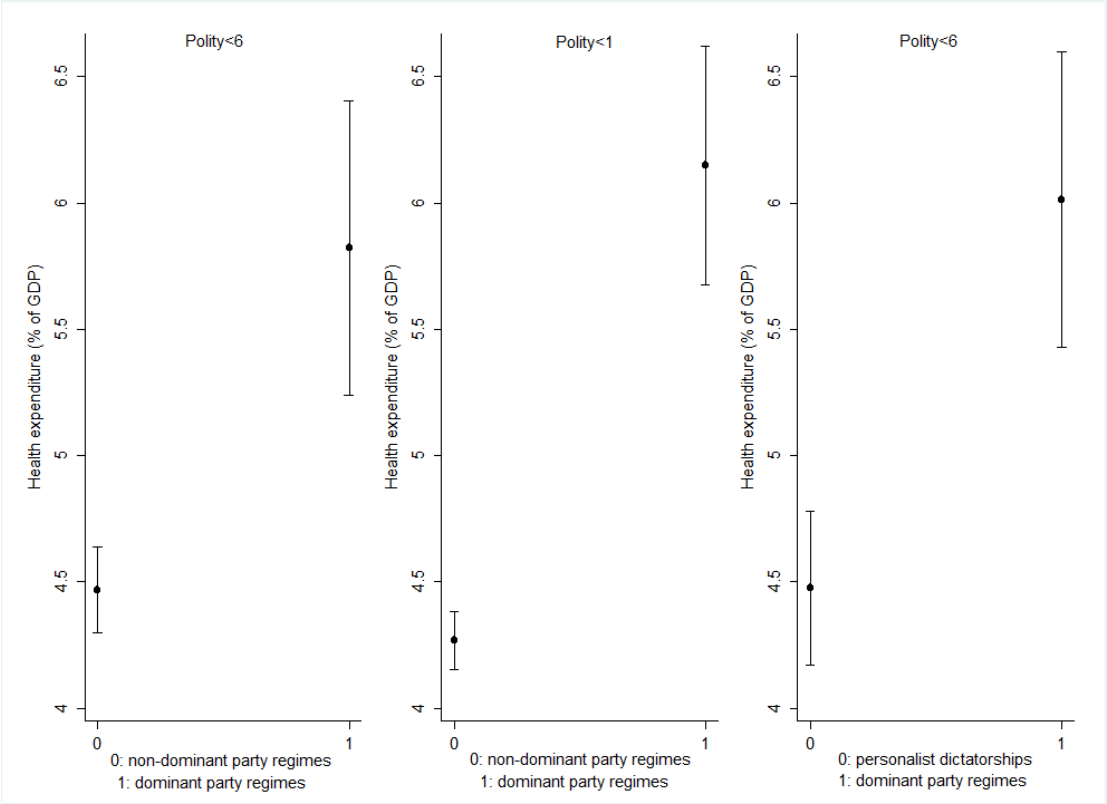
Supplementary Table 4 compares the characteristics of Ivory Coast prior to the regime change to those of the synthetic version, suggesting the synthetic Ivory Coast is very similar to the actual one in terms of pre-2000 per capita GDP, magnitudes of armed conflict, and one-year lag of health expenditure. For robustness tests, we built up a synthetic Ivory Coast as a combination of all personalist dictatorships with weights chosen so that the resulting synthetic version reproduced the values of the predictors of health expenditure in Ivory Coast prior to the regime change in 2000. In addition, to ensure the results are indeed indicative of the negative effects of change into a personalist dictatorship and not driven by other unobservable factors, we conducted sensitivity analyses in which the treatment of interest is reassigned in the data to year 1999 from 2000.

RESULTS

Figure 1 presents the relationship between regime types and health expenditure in the period 1995–2014, showing that dominant party autocracies, compared to non-dominant party regimes, increased health expenditure (% of GDP) (left panel: 1.36 percentage point increase, CI = 0.59–2.12). Our theoretical expectations were confirmed when an alternative threshold that distinguishes autocracies with democracies was chosen (middle panel: 1.88 percentage point increase, CI = 1.28–2.48), or only personalist dictatorships were compared with dominant party autocracies (right panel: 1.54 percentage point increase, CI = 0.63–2.45).

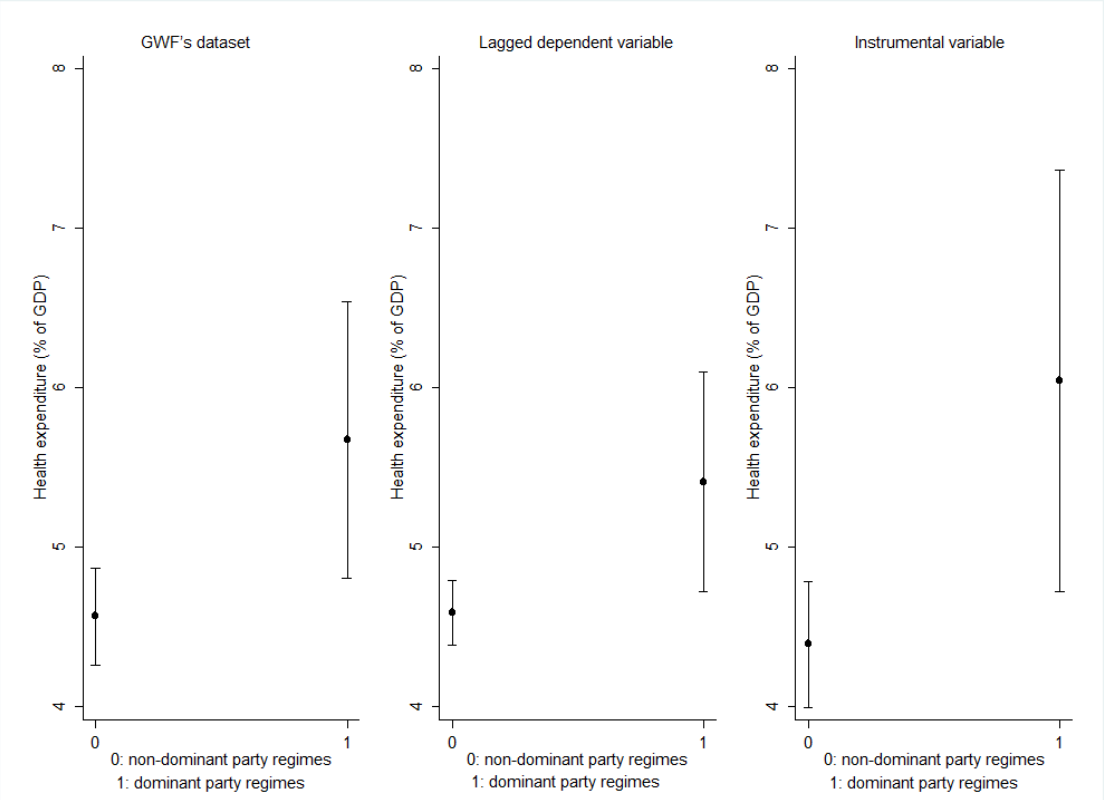
Figure 2 verifies the positive effects of dominant party autocracies on the values of health expenditure when GWF's (2014) definition of democracy

and dictatorship was used (left panel: 1.11 percentage point increase, $p<0.1$), the dependent variable lagged by one year was included in the empirical estimates (middle panel: 0.82 percentage point increase, $p<0.1$), or an instrumental variable was used (right panel: 1.66 percentage point increase, $p<0.1$).



Figures 1. Dominant Party Autocracies Increase Health Expenditure, 1995–2014

Note: linear prediction (left, middle, right): non-dominant party regimes (4.468***, 4.267***, 4.474***) and dominant party regimes (5.823***, 6.148***, 6.013***); * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. All results were based on panel data analysis with country and time fixed effects. Results illustrated in left, middle, and right panel correspond to model 1, 2 and 3 of Supplementary Table 2. *Source*: the author.



Figures 2. Dominant Party Autocracies Increase Health Expenditure, 1995–2014

Note: linear prediction (left, middle, right): non-dominant party regimes (4.560***, 4.588***, 4.387***) and dominant party regimes (5.668***, 5.408***, 6.043***); * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. The result in left panel was based on panel data analysis with country and time fixed effects. The result in middle panel was based on one-step system GMM estimation for dynamic panel data models. The result in right panel was based on panel data analysis with instrumental variable and country and time fixed effects. Results illustrated in left, middle, and right panel correspond to model 4, 5 and 6 of Supplementary Table 2. *Source*: the author.

Figure 3 presents the relationship between regime types, the existence of multiparty elections, and health expenditure in the period 1995–2014, showing that multiparty elections reduce the marginal effect of party autocracies on health expenditure. For example, the value of health expenditure was approximately 6.69% of GDP in dominant party dictatorships without multiparty elections, but it dropped to 5.83% with multiparty elections (left panel: 0.86 percentage point decrease, CI = 0.20–1.52). Using a robustness test, Figure 3 also verifies our expectation that the marginal effect decreased when an autocrat in this type of regime

determined to hold multiparty elections (middle panel: 1.07 percentage point decrease, CI = 0.54–1.59; right panel: 0.92 percentage point decrease, CI = 0.17–1.67). Further, Figure 4 verifies the conditional effect when using GWF's (2014) dataset to identify the universe of autocracies (left panel: 0.85 percentage point decrease, CI = 0.19–1.52) or including a lagged dependent variable in the empirical estimates (right panel: 0.34 percentage point decrease, p<0.1).

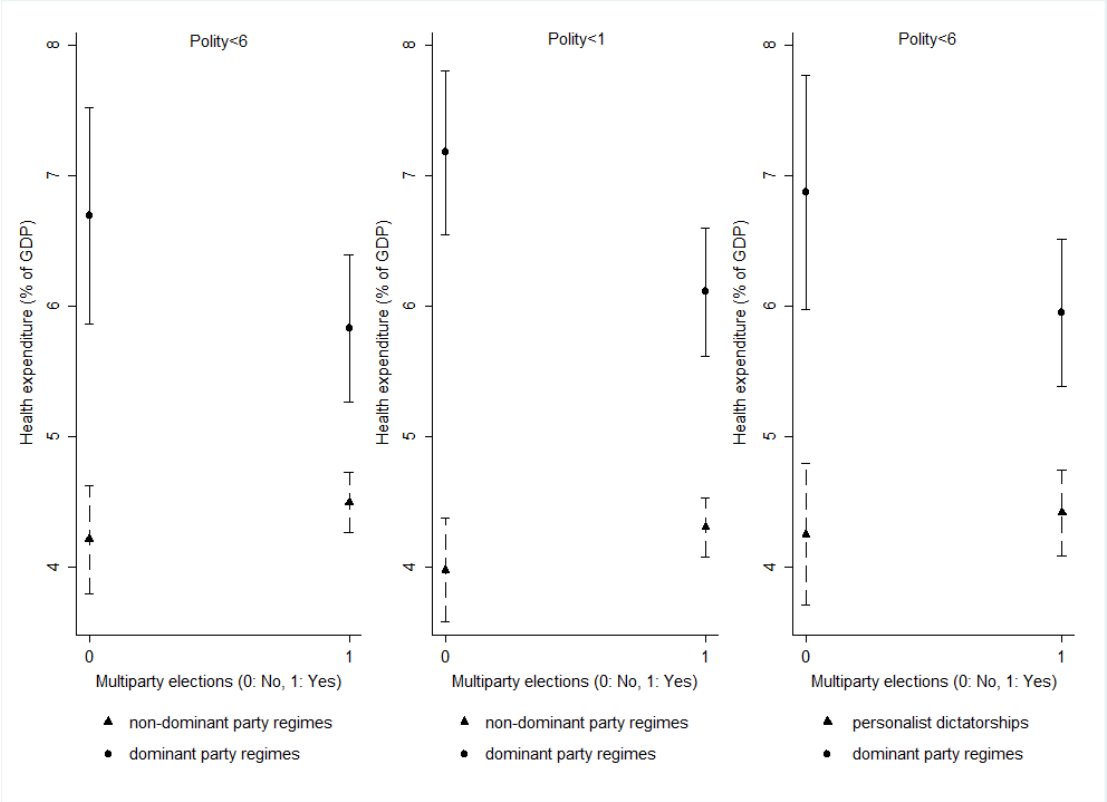


Figure 3. Multiparty Elections Reduce the Marginal Effect of Party Autocracies on Health Expenditure, 1995–2014

Note: linear prediction (left, middle, right): dominant party regimes without elections (6.693***, 7.173***, 6.867***) and dominant party regimes with elections (5.829***, 6.108***, 5.947***); * p < 0.10, ** p < 0.05, and *** p < 0.01. All results were based on panel data analysis with country and time fixed effects. Results illustrated in left, middle, and right panel correspond to model 1, 2 and 3 of Supplementary Table 3. *Source*: the author.

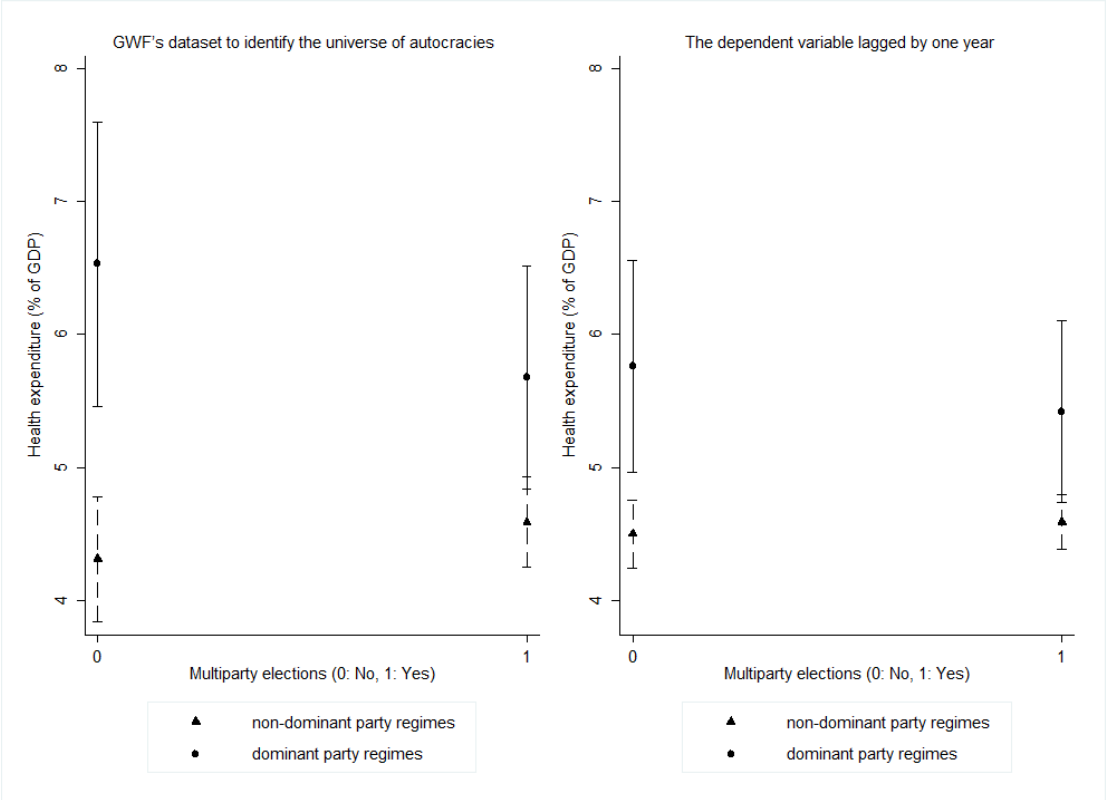


Figure 4. Multiparty Elections Reduce the Marginal Effect of Party Autocracies on Health Expenditure, 1995–2014
Note: linear prediction (left, right): dominant party regimes without elections (6.529^{***}, 5.762^{***}) and dominant party regimes with elections (5.676^{***}, 5.419^{***}); * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. The result in left panel was based on panel data analysis with country and time fixed effects. The result in right panel was based on one-step system GMM estimation for dynamic panel data models. Results illustrated in left and right panel correspond to model 4 and 5 of Supplementary Table 3. *Source*: the author.

Figure 5 demonstrates that the synthetic Ivory Coast almost exactly reproduced health expenditure for the actual Ivory Coast during the pre-treatment period from 1997 to 1999. The difference in health expenditure between the actual Ivory Coast and its synthetic version, however, started to grow following the regime change in 2000, suggesting a pronounced negative effect of the government transition on Ivory Coast health expenditure. Similarly, the two lines diverged substantially before 2000 when a synthetic Ivory Coast combining all personalist dictatorships was compared. From 2001 onward, the difference between the two series declined, thus verifying our theoretical expectations.

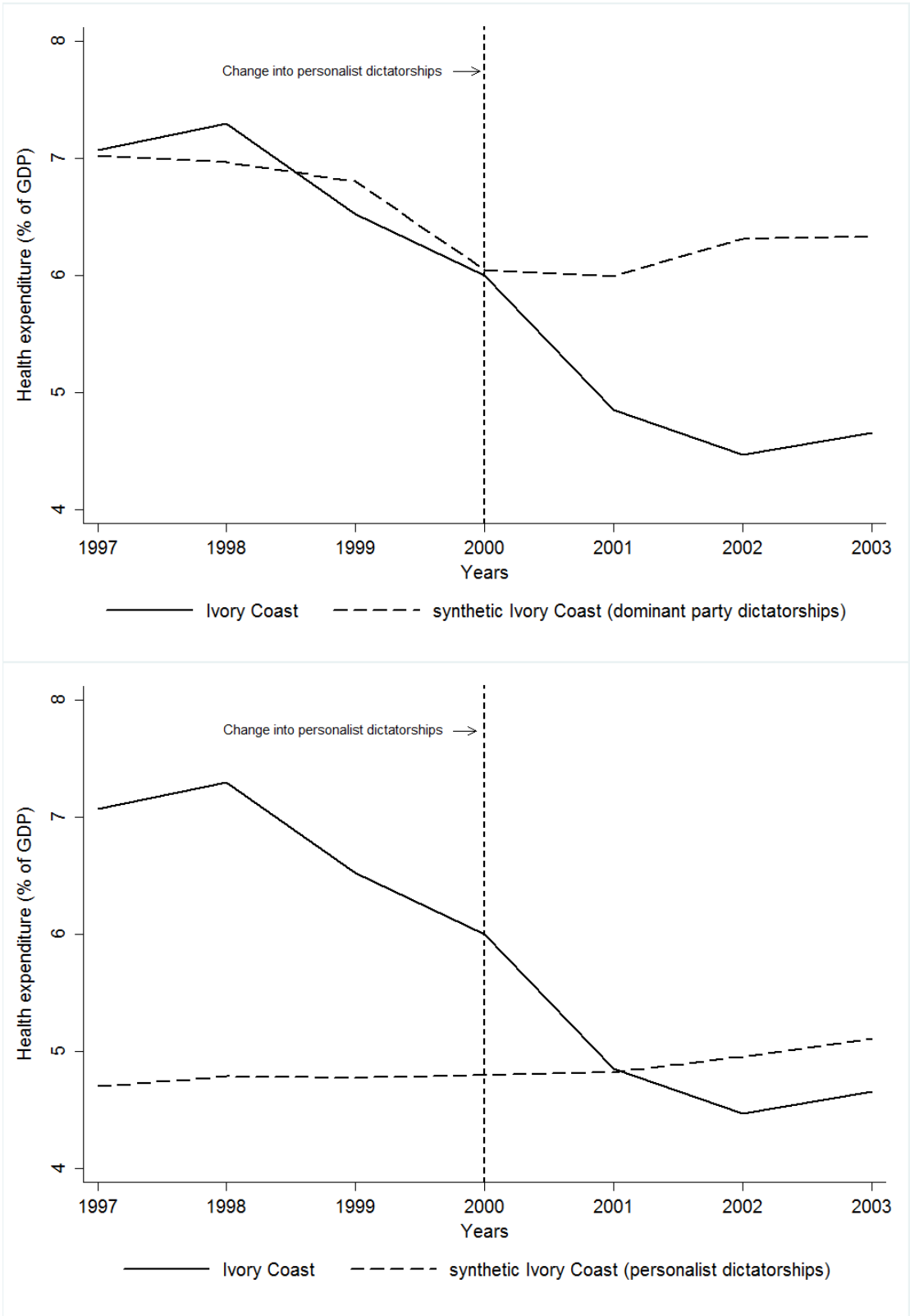


Figure 5. Trends in Health Expenditure: Ivory Coast vs. Synthetic Ivory Coast, 1997–2003

Note: health expenditure from 1997 to 2003 (upper panel): actual Ivory Coast (7.066, 7.298, 6.522, 6.001, 4.846, 4.467, 4.652) and synthetic Ivory Coast (7.025, 6.965, 6.802, 6.044, 5.994, 6.313, 6.330); health expenditure from 1997 to 2003 (lower panel): synthetic Ivory Coast (4.699, 4.784, 4.772, 4.795, 4.820, 4.954, 5.107). *Source*: the author.

Using sensitivity analyses, Figure 6 shows that the health expenditure trajectories of Ivory Coast and its synthetic version did not diverge considerably in 2000 but did in 2001, reflecting the regime change in 2000 as the determinant of health expenditure in dictatorships.

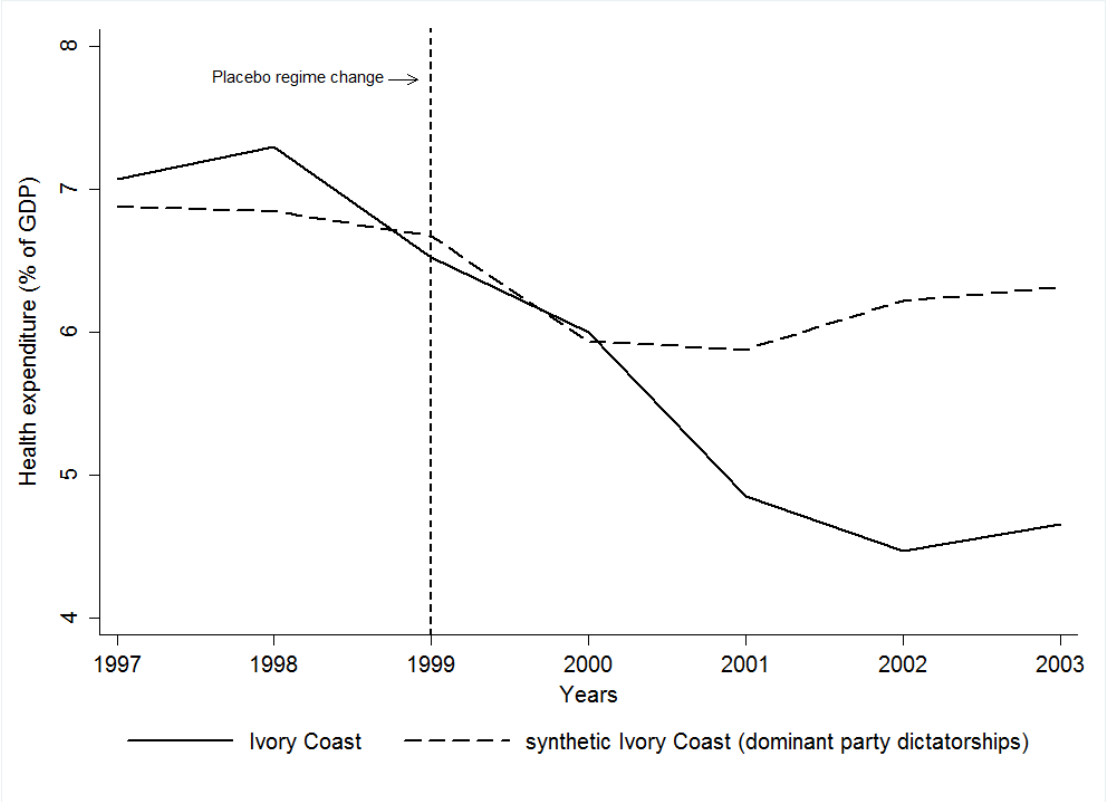


Figure 6. Placebo Regime Change-Trends in Health Expenditure: Ivory Coast vs. Synthetic Ivory Coast, 1997–2003
Note: health expenditure from 1997 to 2003: actual Ivory Coast (7.066, 7.298, 6.522, 6.001, 4.846, 4.467, 4.652) and synthetic Ivory Coast (6.879, 6.845, 6.671, 5.932, 5.877, 6.218, 6.313). Country weights in the synthetic Ivory Coast: Zimbabwe (0.812), Tunisia (0.044), Zambia (0.039), Singapore (0.032), Laos (0.020), Malaysia (0.019), Mozambique (0.015), Tanzania (0.011) and Vietnam (0.008). Predictor means: log (GDP per capita): real (8.033) and synthetic (8.033); Armed conflict: real (0) and synthetic (0); Lagged health expenditure: real (6.903) and synthetic (6.902). *Source*: the author.

DISCUSSION

The findings suggest that dominant party dictatorships in which multiparty elections are banned, compared to other forms of dictatorships, are associated with a higher level of health expenditure. A dictator needs to pay close attention to the population health status in a dominant party regime in

which legitimation strategies and governance are configured to tie a large group of people to the elite, thus increasing health expenditure. Multiparty elections, however, decrease this marginal effect, as more government expenditures go into discouraging the opposition's use of elections to replace existing institutions (see supplementary data analysis).

We confirmed that dominant party regimes were associated with higher health expenditures, which is consistent with the finding dominant party regimes contain more public goods provisions. For example, a greater number of non-government environmental organisations are likely to be found in dominant party regimes than in other autocracies; this is because dominant party regimes must rely on popular support, and thus promote something similar to a civil society (Böhmelt 2014). Dominant party regimes are also more likely to reach into society in order to create a political base, and will therefore extensively allocate subsides and transfers that are linked with lower income inequality (Hanson 2013).

The presence of elections decreases health expenditures. Our findings were similar to those of other studies suggesting that the presence of elections and incumbent elites in electoral autocracies have greater incentives to co-opt broader segments from within society (Gandhi and Przeworski 2007). That is, multiparty elections increase the number of potential challengers; this creates higher levels of political competition, which then increases the dictator's fears about turnover and the willingness to transfer particular goods (e.g., perks, privileges, and direct monetary rewards) to specific individuals or groups, or even buy popular support. These conditions can lead to a transfer of healthcare expenditures in order to

influence election outcomes.

We, however, failed to consider two aspects: the effects of subtypes of non-dominant party regimes on the values of health expenditure and the marginal effect of multiparty elections on such types of regimes. First, military dictators justify their position as guardians of national interest, saving the nation from economic setback or social anomie (Cheibub et al. 2010). They borrow their legitimacy from better governance and, thus, need to care about population health, compared to monarchies in which rulers base their legitimacy on a God-given, natural or at least established historical right to rule (Kailitz 2013). Second, as Figure 2 shows, multiparty elections reduce the marginal effect of party autocracies on health expenditure but seemingly have a reverse effect on health expenditure in other forms of autocracies. A possible explanation is multiparty elections can enlarge the social basis and secure legitimacy in such types of regimes in which leaders previously relied on support from specific groups (e.g. junta), thus encouraging more spending on healthcare. In conclusion, future studies should focus on the two dimensions.

The literature on social spending and the provision of public goods generally shows that health and education expenditures follow a similar logic (Bueno de Mesquita et al. 2003, Kauffman and Segura-Ubriego 2001). It would be useful to investigate how dominant party regimes affect education expenditures as a test of robustness. First, limited data value is stored for the variable between 1995 and 2014. Second, education expenditures may have adverse effects on authoritarian durability. Previous research has shown that increases in education favour democratisation because education fosters

political tolerance, which involves the practical application of democratic principles to disfavoured groups (Marquart-Pyatt and Paxton 2007), the provision of civic skills and promotion of political participation (Glaeser et al. 2007), and fairer income distribution (De Gregorio and Lee 2002). It is therefore doubtful that dictators in dominant party regimes are more likely to increase education expenditures when compared to other autocratic leaders. Future research can be conducted to test theoretical expectations when more complete data are available.

The study investigates the influence of different forms of dictatorships through the use of two separate methods, thus speaking to several central studies in health economics and comparative politics. First, elections, parties, or legislatures help the dictator make a credible commitment to share power with ruling elites (Gandhi and Przeworski 2007; Magaloni 2008; Wright 2008), thus making it more likely for the dictator to transfer government expenditure from discouraging a rebellion to healthcare to buy off popular support. Instead of this power-sharing logic, we incorporate the legitimation dimension into the explanation of the variation in health spending. Second, this study argues for legitimation strategies under which more voices in policymaking are involved to exert a positive influence on the dictator's willingness to increase health expenditure, contributing to existing studies on the roles of regime legitimation patterns (Stier 2015).

Some limitations of this study should be discussed. One limitation is that countries were observed over a relatively short period of time, leading only Ivory Coast to experience an exit from dominant party regimes. World Bank data – the most comprehensive data set available on global health

expenditure – however, allows us to analyse at the given period of time. Another limitation is there are no data for examining the level of health spending that reflects the extent to which authoritarian leaders care about population health. Thus, alternative explanations are likely: for example, a dictator increases health spending when left-wing parties are in government or the impact of populist radical right parties on policy is low (Bellido et al. 2019; Falkenbach and Greer 2018). In dictatorships, however, parties frequently are not ideologically disciplined organizations, but rather groupings of business oligarchs or candidates based on the support of family and friends who compete to gain personal benefits (Gandhi and Reuter 2013). Finally, despite using robustness tests, we acknowledge that researchers examining the same questions might have made different decisions about the data to use, the thresholds, the assumptions, the analytical approach, all of which may have substantially influenced the results.

In sum, at least two policy implications follow. First, efforts to guide the autocrat to increase health expenditure by creating dominant party regimes might be more effective if the use of such strategies is conditional on the existence of multiparty elections. Second, scholars of health economics in non-democratic regimes could pay close attention to a constitutional design that facilitates the emergence of dominant party regimes (Yan 2019).

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Supplementary Data Analysis

This research presents evidence on why multiparty elections reduce the marginal effect of dominant party regimes on health expenditure. First, we demonstrate that in the face of electoral competition, the dictator intends to manage the opposition, for example, through control over the media, thus ensuring authoritarian dominance. Second, such methods require money, and we, thus, display a negative correlation between health expenditure and media control. In other words, a dictator in dominant party regimes holding elections tends to transfer government spending on healthcare to alleviate opposition threats. Finally, we expect that leaders of party autocracies cut back on other types of expenditures as well to manage the opposition. This is because electoral competition increases their willingness to transfer expenditures from legitimising dictatorial rule, such as improving public health, maintaining national security or indoctrinating ideological goals, to cope with the imminent threat. Thus, we reveal that multiparty elections reduce the marginal effect of party autocracies on other types of expenditures.

Multiparty elections help the regime incumbents identify opposition strongholds (Gandhi and Przeworski 2007), and provide key opposition forces with legislative representation of autonomous political parties that make more likely generating of policy outcomes that cater to their preferences (Magaloni 2006). It, thus, may reduce their risk of violent removal from office by the opposition (Acemoglu and Robinson 2005). Further, elections aid incumbents in maintaining their ties with ruling elites by distributing spoils and power positions with certain regularity, thus deterring rebels among members of the ruling coalition (Magaloni 2008). Finally,

multiparty elections help the regime incumbents establish democratic legitimation, reducing international conditionality, defined as the linking of concrete punishments to improvements in the quality of democracy (Schedler 2006). Multiparty elections, however, offer opposition forces a channel to express policy positions, develop the party organisations, foster their supporters, and unite different social forces, raising leaders' risk of electoral defeat.

Confronting opposition threats in multiparty elections, the dictator intends to manage the opposition. Media control is closely associated with a dictator's survival. In multiparty elections, the media facilitates power struggles that emerge between the government and the opposition by shaping public discourse, providing a collaborative forum for opposition voices (Ojo 2007), which empowers inefficient collective action against dictators and promotes democratisation. The media can also educate the public (Corrigall-Brown and Wilkes 2014; Kenski and Stroud 2006; Kittilson and Dalton 2011) and deepen the concept of political liberties and participation rights of citizens in society (Swigger 2013; Sajuria 2013), which helps the opposition mobilise people to vote against "authoritarian" incumbents. Leaders in dictatorships that hold multiparty elections, thus, often actively seek to suppress the independent media.

Media control is defined as the degree to which a country allows the free flow of news and information. This research measured media control using the freedom of the press index of Freedom House, the most comprehensive data set available on global media freedom. The index assessed the degree of print, broadcast, and the Internet freedom in every

country, analysing the events of each calendar year. The index is scaled to a range of 0–100: A score of “100” is least free, indicating an autocrat’s sweeping control over the media, while “0” is most free. We follow Brownlee’s operationalisation of Levitsky and Way’s typology of dictatorships based on the existence of electoral institutions using a 7-point measure of legislative indices of electoral competitiveness (LIEC) (Brownlee 2009; Levitsky and Way 2002). A dictatorship that holds multiparty elections is coded 1 if a regime has a score greater than 4. A list of control variables influencing media control was added, including constitutional design, economic development and economic growth. This study tested the hypotheses using panel data regression.

Figure 1 presents the relationship between regime types, the existence of multiparty elections and media control in the period of 1995–2014, showing that multiparty elections increase the marginal effect of party autocracies on media control (left panel: 5.64, CI = 1.77–9.51). For example, while the score of media control was approximately 70.71 in dominant party autocracies without elections, it rose to 76.35 with elections. Figure 1 also verifies that the marginal effect increased when an autocrat in this type of regime determined to hold elections using robustness testing (middle panel: 4.98, CI = 1.09–8.86; right panel: 5.26, CI = 1.72–8.81).

Media control requires money. For example, in Peru, the Fujimori government gained de facto control over all of the country’s privately owned television stations through bribery (Levitsky and Way 2002). The regime incumbents often funded the broadcast or print media owned by the state for increasing the probability of winning elections. For example, in Kazakhstan,

the major state-funded TV stations *Khabar* and *Kazakhstan* granted the ruling party preferential coverage quantitatively and qualitatively in elections (Yan 2017).

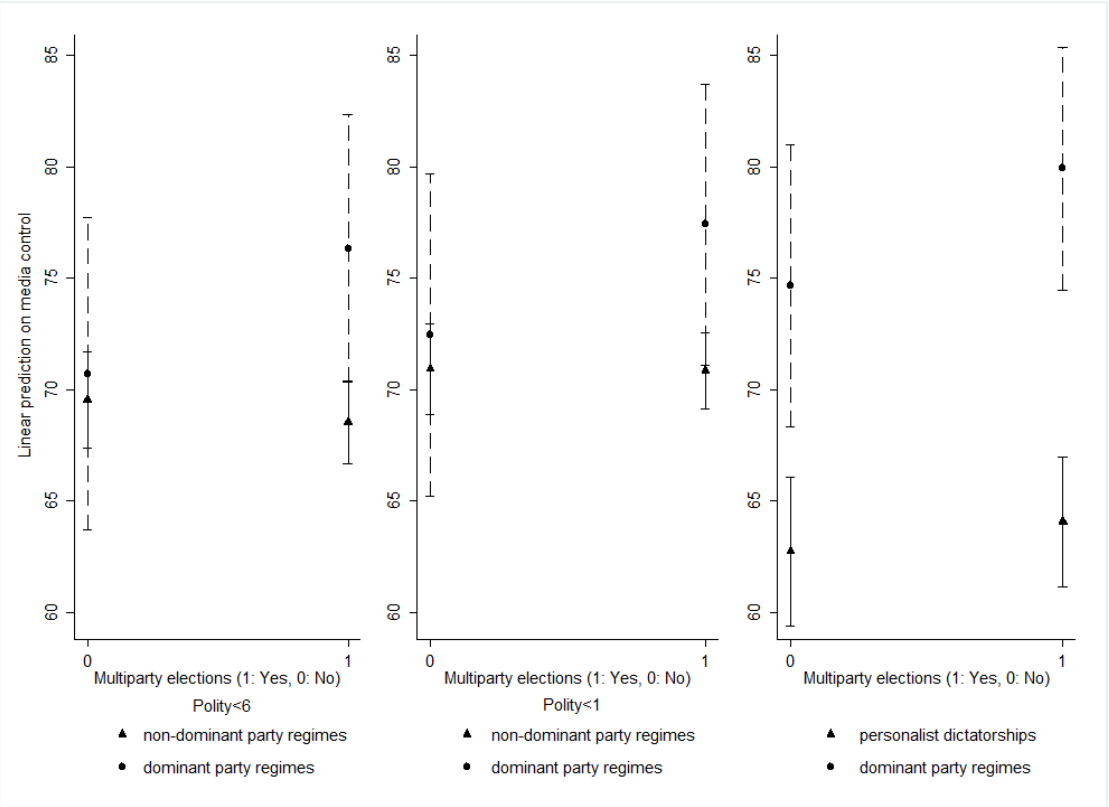

Figure 1. Multiparty Elections Increase the Marginal Effect of Party Autocracies on Media Control, 1995–2014
Note: linear prediction (left, middle, right): dominant party regimes without elections (70.71^{***}, 72.43^{***}, 74.67^{***}) and dominant party regimes with elections (76.35^{***}, 77.41^{***}, 79.93^{***}); * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. All results were based on panel data analysis with country and time fixed effects. Left panel: this study defined dictatorships as those with Polity IV scores lower than 6; middle panel: this study changed the threshold for the determinant of dictatorships as those with Polity IV scores lower than 1; right panel: this study compared the effects of dominant party regimes only with those of personalist dictatorships. *Source*: the author.

We expect that leaders of party autocracies transfer expenditures from legitimising dictatorial rule to manage the opposition. A dictator in dominant party regimes pays closer attention to the public health status on which the legitimate rule is based and increases the health expenditure. The strategic action, however, cannot be envisaged in multiparty elections under which the dictator is likely to be ousted through electoral defeat and, thus, must fully

concentrate on the opposition. In this way, a dictator in dominant party regimes holding elections tends to transfer government spending on healthcare to increase media control.

Figure 2 reveals a negative correlation between health expenditure and media control in the period of 1995–2014. A 10 percentage point decrease in health expenditure (e.g. moving down from 15% to 5%) resulted in an increase in the score of media control by 6.82 (left panel, CI = 2.35–11.30) or 6.45 (right panel, CI = 1.70–11.19) respectively.

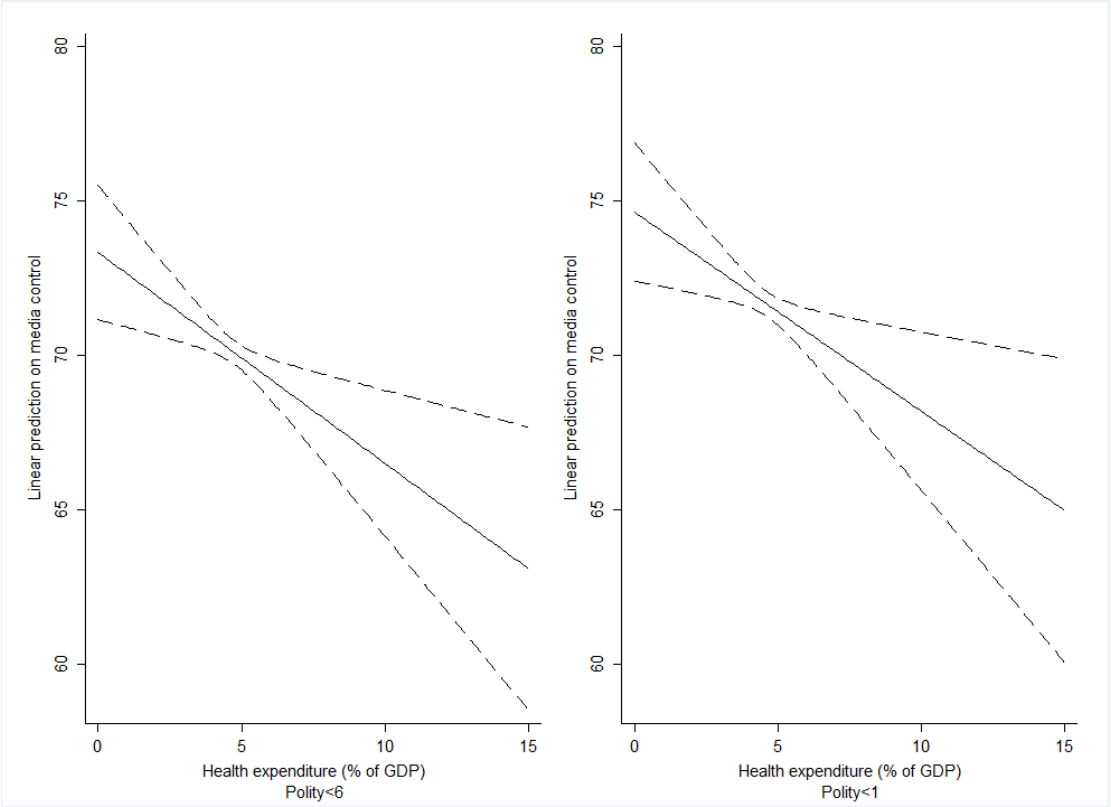

Figure 2. Negative Relations Between Health Expenditure and Media Control, 1995–2014

Note: regression coefficient: left panel: –0.682***, 95% CI = [–1.130, –0.235]; right panel: –0.645***, 95% CI = [–1.119, –0.170]; * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. All results were based on panel data analysis with country and time fixed effects. Left panel: this study defined dictatorships as those with Polity IV scores lower than 6. Right panel: this study changed the threshold for the determinant of dictatorships as those with Polity IV scores lower than 1. *Source*: the author.

To support our arguments, we checked the relationship between

health expenditure and judicial control, one of the measures to manage the opposition. An independent judiciary has monitoring and coordination functions (Carrubba 2005; Weingast 1997), helping the opposition annul controversial election results under which the ruling party won through massive fraud and violence. Compliant judges or prosecutors, by contrast, investigate politically sensitive actors and issues and bring those cases to court for a trial or threaten to do so to discourage the opposition from competing with the incumbent (Ríos-Figueroa and Aguilar 2018). Thus, a dictator in dominant party regimes holding elections tends to transfer government spending on healthcare to increase judicial control.

This research used Latent Judicial Independence scores constructed with the graded item response theory model as the level of judicial independence (0: least independent; 1: most independent), which captures the extent to which a court depends on a government and its trends between 1995 and 2012 (Linzer and Staton 2015). The index was rescaled into a range of 0–1, with higher values representing a greater level of an autocrat's manipulation of the judiciary. Likewise, a list of control variables influencing judicial control was added, including constitutional design, economic development and economic growth. This study tested the hypotheses using panel data regression.

Figure 3 shows a negative correlation between health expenditure and judicial control in the period of 1995–2012. A 10 percentage point decrease in health expenditure (e.g. moving down from 15% to 5%) resulted in an increase in the level of manipulation of the judiciary by 0.040 (left panel, CI = 0.006–0.074) or 0.032 (right panel, CI = 0.003–0.062).

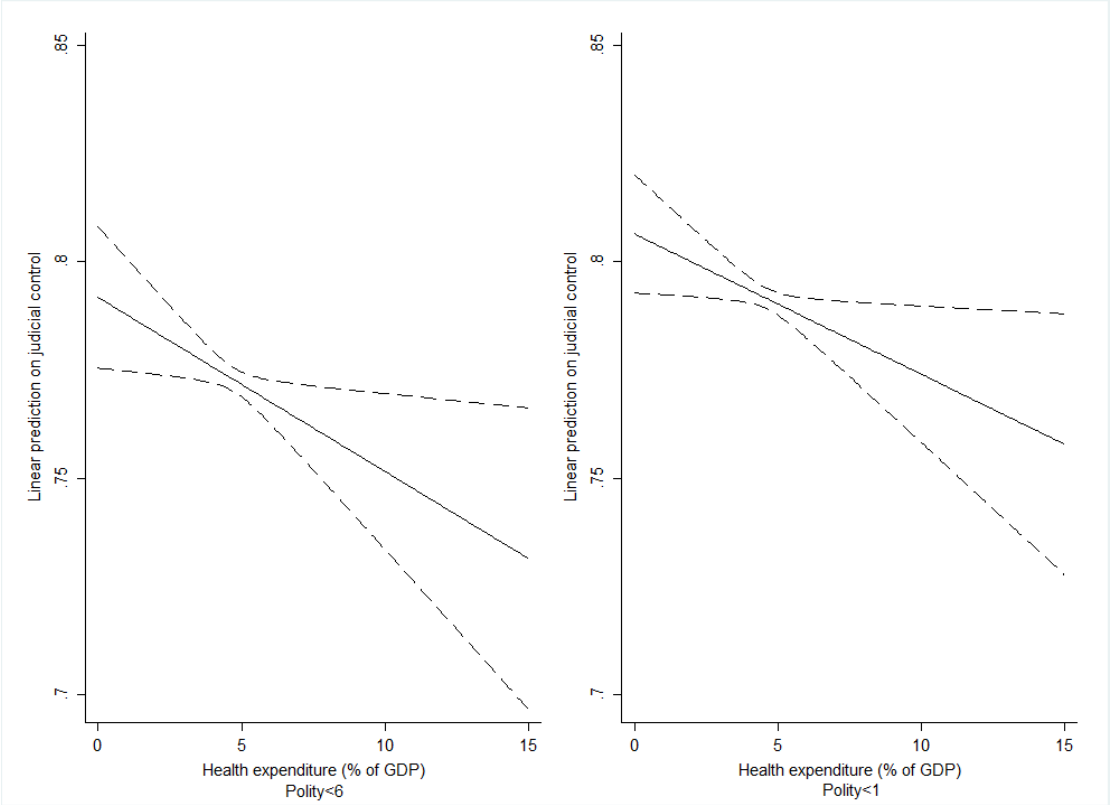

Figure 3. Negative Relations Between Health Expenditure and Judicial Control, 1995–2012

Note: regression coefficient: left panel: –0.0040**, 95% CI = [–0.0074, –0.0006]; right panel: –0.0032**, 95% CI = [–0.0062, –0.0003]; * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. All results were based on panel data analysis with country and time fixed effects. Left panel: this study defined dictatorships as those with Polity IV scores lower than 6. Right panel: this study changed the threshold for the determinant of dictatorships as those with Polity IV scores lower than 1. *Source*: the author.

To support our arguments, we also checked whether in multiparty elections leaders of party autocracies cut back on other types of expenditures originally used for legitimising dictatorial rule. We choose military expenditure as the object of analysis because it is closely associated with national security, which helps the autocrats establish legitimacy through the security of a nation state.

Military expenditure was defined as all current and capital expenditures on the armed forces as a proportion of GDP. This research measured military expenditure using World Bank data. Likewise, a list of control variables influencing military expenditure was added, including

economic development, economic growth, prevalence of HIV, and magnitudes of armed conflict. This study tested the hypotheses using panel data regression.

Figure 4 presents the relationship between regime types, the existence of multiparty elections and military expenditure in the period of 1995–2014, showing that multiparty elections reduce the marginal effect of party autocracies on military expenditure. For example, while the proportion of military expenditure was approximately 3.33% of GDP in dominant party dictatorships without elections, it dropped to 2.20% with elections (left panel: 1.13 percentage point decrease, CI = 0.38–1.88). Figure 4 also verifies that the marginal effect increased when an autocrat in this type of regime determined to hold elections using a test of robustness (middle panel: 1.32 percentage point decrease, CI = 0.48–2.15; right panel: 1.21 percentage point decrease, CI = 0.60–1.82).

There is no statistically significant difference in government spending on the armed forces between the dominant party regimes and their counterparts. Thus, unlike health expenditure, regime types are not the determinants of military expenditure in dictatorships. It is rational because dictators, irrespective of their governance types, are motivated to protect their countries from foreign intervention, thus stabilising their rule. Our results imply legitimation strategies in explaining variations in health spending but not in military expenditure.

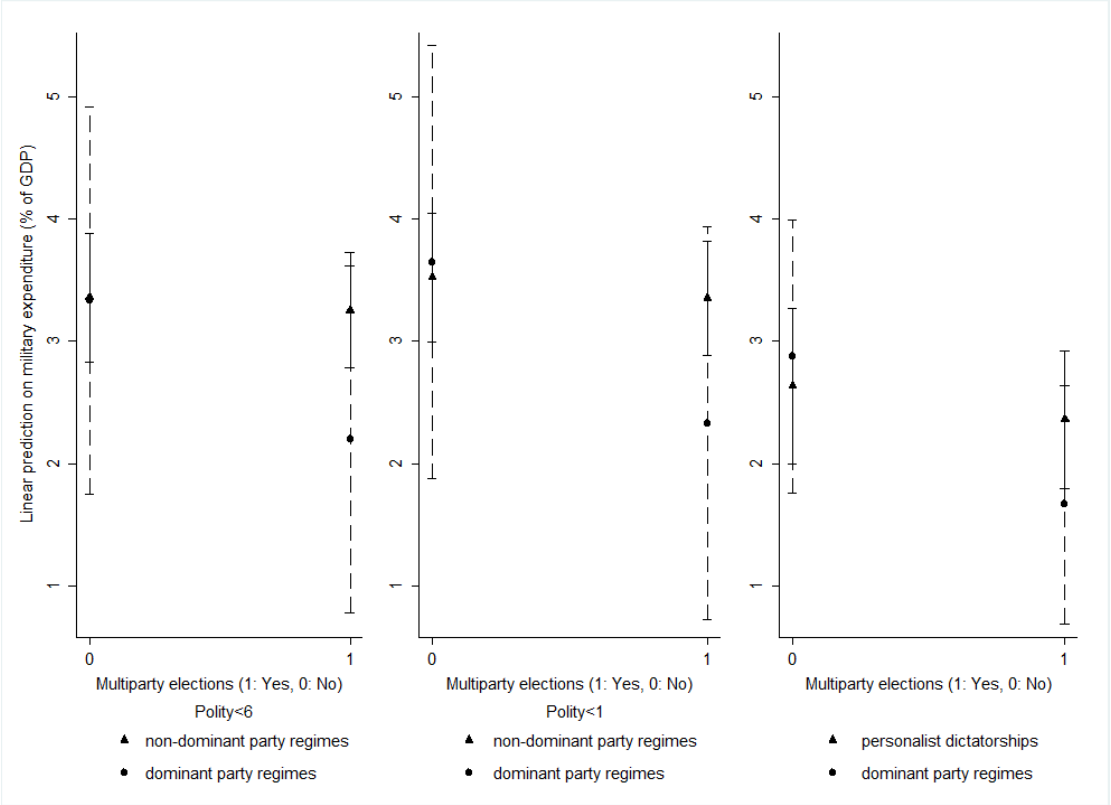

Figure 4. Multiparty Elections Reduce the Marginal Effect of Party Autocracies on Military Expenditure, 1995–2014
Note: linear prediction (left, middle, right): dominant party regimes without elections (3.33^{***}, 3.65^{***}, 2.88^{***}) and dominant party regimes with elections (2.20^{***}, 2.33^{***}, 1.66^{***}); * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. All results were based on panel data analysis with country and time fixed effects. Left panel: this study defined dictatorships as those with Polity IV scores lower than 6; middle panel: this study changed the threshold for the determinant of dictatorships as those with Polity IV scores lower than 1; right panel: this study compared the effects of dominant party regimes only with those of personalist dictatorships. *Source*: the author.

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Supplementary Tables 1. The Summary of Variables, Operationalization of Indicators, Data Sources and Descriptive Statistics

Variable	Operationalizaiton of indicators	Data Sources
Health expenditure (% of GDP)	The total country spending on health as a proportion of GDP Continuous variables	The World Bank: http://data.worldbank.org.
Dominant party regime	Dummy variables (0: No, 1: Yes)	Autocratic Regime Data http://sites.psu.edu/dictators/.
Multiparty elections	Dummy variables (0: No, 1: Yes)	Database of Political Institutions
GDP per capita	Log GDP, per capita (US dollars) Continuous variables	The World Bank: http://data.worldbank.org.
GDP per capita growth	Percentage of GDP growth (%) Continuous variables	
Prevalence of HIV (% of population ages 15–49)	The percentage of people ages 15–49 who are infected with HIV Continuous variables	
Magnitudes of armed conflict	The systematic and sustained use of lethal violence by organized groups that result in at least 500 directly-related deaths over the course of the episode Ordinal variables	Major Episodes of Political Violence, 1946–2017 http://www.systemicpeace.org/warlist.htm.
Personal dictatorships	Dummy variables (0: No, 1: Yes)	Autocratic Regime Data http://sites.psu.edu/dictators/.
Military expenditure (% of GDP)*	All current and capital expenditures on the armed forces as a proportion of GDP Continuous variables	The World Bank: http://data.worldbank.org.
Media control*	The degree to which a country allows the free flow of news and information Continuous variables (0–100, from most free to least free)	Freedom House: https://freedomhouse.org.
Judicial control*	The extent to which a court depends on a government Continuous variables (0–1, from lower to higher level of control)	The replication data from Linzer DA, Staton J. A global measure of judicial independence, 1948–2012. *J Law Courts* 2015; 3: 223–56.
Parliamentarism*	Dummy variables (0: No, 1: Yes)	Database of Political Institutions

(Continued).

Variable	N	Mean	S.D.	Min	Max
Health expenditure (% of GDP)	1431	4.900	1.828	1.446	13.633
Dominant party regime	1485	0.179	0.384	0	1
Multiparty elections	1488	0.708	0.455	0	1
GDP per capita	1388	11403.74	20431.42	247.437	129349.9
Log(GDP per capita)	1388	8.421	1.272	5.511	11.770
GDP per capita growth	1399	2.853	7.651	-62.225	140.501
Prevalence of HIV (% of population ages 15–49)	1468	2.264	4.528	0	30
Magnitudes of armed conflict	1488	0.798	1.678	0	7
Personal dictatorships	1485	0.322	0.467	0	1

Military expenditure (% of GDP)*	1171	2.978	3.039	0.001	34.376
Media control*	1483	69.070	15.841	18	100
Judicial control*	1333	0.757	0.139	0.073	0.983
Parliamentarism*	1474	0.226	0.418	0	1

Note: *Data will be used in the supplementary information. *Source*: the author.

Supplementary Tables 2. Dominant Party Autocracies Increase Health Expenditure, 1995–2014

	Model (1) Polity<6	Model (2) Polity<1	Model (3) Only pers.	Model (4) GWF	Model (5) LDV	Model (6) IV
Lag. dominant party regime	1.355***	1.881***	1.539***	1.107*	0.820*	1.656*
	(0.384)	(0.301)	(0.453)	(0.597)	(0.452)	(0.874)
Log(GDP per capita)	-0.395	-0.168	-0.879	-0.466	-0.577***	-0.455***
	(0.392)	(0.428)	(0.514)	(0.387)	(0.218)	(0.158)
GDP growth	-0.001	-0.006	0.007	-0.002	-0.004	0.001
	(0.008)	(0.008)	(0.009)	(0.008)	(0.004)	(0.005)
Prevalence of HIV	-0.075	-0.245	0.012	-0.031	-0.024	-0.044
	(0.110)	(0.153)	(0.124)	(0.108)	(0.042)	(0.037)
Armed conflict	-0.106	-0.105	-0.079	-0.120*	-0.006	-0.071**
	(0.070)	(0.082)	(0.078)	(0.070)	(0.027)	(0.031)
Health expenditure$_{t-1}$					0.514***	
					(0.046)	
Constant	7.580**	5.905*	10.803***	8.178**	7.451***	7.888***
	(3.183)	(3.518)	(3.888)	(3.142)	(1.945)	(1.263)
No. of subjects	1019	836	668	1085	1016	1067
No. of groups	73	66	48	77	73	73
Years dummy	Yes	Yes	Yes	Yes	Yes	Yes
Cluster on countries	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.7574	0.7634	0.6652	0.7579	-	-
Prob>F	0.0000	0.0000	0.0000	0.0000	-	-

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$. Independent variables are lagged by one year. Model 1: Hausman test: Prob. >chi2 = 0.000, and a joint test of year dummies: Prob. > F = 0.000; model 2: Hausman test: Prob. >chi2 = 0.000, and a joint test of year dummies: Prob. > F = 0.000; model 3: Hausman test: Prob. >chi2 = 0.037, and a joint test of year dummies: Prob. > F = 0.000; model 4: Hausman test: Prob. >chi2 = 0.001, and a joint test of year dummies: Prob. > F = 0.000; model 5: Arellano-Bond test for AR(1) in first differences: Prob. > z = 0.000, Arellano-Bond test for AR(2) in first differences: Prob. > z = 0.565, Sargan test: Prob. >chi2 = 0.000; model 6: First stage regression coefficient of autocratic constitutional design: 0.291***, CI = 0.262–0.321. Weak identification test (Cragg-Donald Wald F statistic): 367.948. The 10% relative bias of the 2SLS estimator we are willing to tolerate is 16.38. Model 1: this study defined dictatorships as those with Polity IV scores lower than 6; model 2: this study changed the threshold for the determinant of dictatorships as those with Polity IV scores lower than 1; model 3: this study compared the effects of dominant party regimes only with those of personalist dictatorships; model 4: this study employed Geddes, Wright, and Frantz's dataset to identify the universe of autocracies; model 5: this study included the dependent variable lagged by one year in the empirical estimates; model 6: this study used autocratic constitutional design to instrument regime types.

Supplementary Tables 3. Multiparty Elections Reduce the Marginal Effect of Party Autocracies on Health Expenditure, 1995–2014

	Model (1) Polity<6	Model (2) Polity<1	Model (3) Only pers.	Model (4) GWF	Model (5) LDV
Lag. dominant party regime	2.479***	3.194***	2.615***	2.220***	1.265**
	(0.529)	(0.411)	(0.591)	(0.701)	(0.515)
Lag. multiparty elections	0.282	0.327	0.164	0.278	0.090
	(0.276)	(0.290)	(0.301)	(0.272)	(0.101)
Lag. dom. party* Lag. elections	-1.145***	-1.392***	-1.084**	-1.131***	-0.433*
	(0.403)	(0.335)	(0.432)	(0.404)	(0.252)
Log(GDP per capita)	-0.372	-0.144	-0.829	-0.444	-0.602
	(0.390)	(0.427)	(0.511)	(0.385)	(0.218)
GDP growth	-0.001	-0.006	0.007	-0.002	-0.004
	(0.008)	(0.008)	(0.009)	(0.008)	(0.004)
Prevalence of HIV	-0.066	-0.217	0.019	-0.023	-0.019
	(0.107)	(0.148)	(0.121)	(0.105)	(0.042)
Armed conflict	-0.102	-0.102	-0.074	-0.115*	-0.009
	(0.066)	(0.077)	(0.076)	(0.066)	(0.027)
Health expenditure$_{t-1}$					0.499***
					(0.047)
Constant	7.142**	5.416	10.171**	7.744**	7.563***
	(3.159)	(3.503)	(3.866)	(3.114)	(1.947)
No. of subjects	1019	836	668	1085	1016
No. of groups	73	66	48	77	73
Years dummy	Yes	Yes	Yes	Yes	Yes
Cluster on countries	Yes	Yes	Yes	Yes	Yes
R-squared	0.7616	0.7697	0.6719	0.7618	-
Prob>F	0.0000	0.0000	0.0000	0.0000	-

Note: standard error in parentheses; * $p < 0.1$, ** $p < 0.05$, and *** $p < 0.01$. Independent variables are lagged by one year. Model 1: Hausman test: Prob. >chi2 = 0.000, and a joint test of year dummies: Prob. > F = 0.000; model 2: Hausman test: Prob. >chi2 = 0.000, and a joint test of year dummies: Prob. > F = 0.000; model 3: Hausman test: Prob. >chi2 = 0.000, and a joint test of year dummies: Prob. > F = 0.000; model 4: Hausman test: Prob. >chi2 = 0.002, and a joint test of year dummies: Prob. > F = 0.000; model 5: Arellano-Bond test for AR(1) in first differences: Prob. > z = 0.000, Arellano-Bond test for AR(2) in first differences: Prob. > z = 0.651, Sargan test: Prob. >chi2 = 0.000. Model 1: this study defined dictatorships as those with Polity IV scores lower than 6; model 2: this study changed the threshold for the determinant of dictatorships as those with Polity IV scores lower than 1; model 3: this study compared the effects of dominant party regimes only with those of personalist dictatorships; model 4: this study employed Geddes, Wright, and Frantz's dataset to identify the universe of autocracies; model 5: this study included the dependent variable lagged by one year in the empirical estimates.

Supplementary Tables 4. Health Expenditure Predictor Means

	Ivory Coast (dominant party dictatorships)		Ivory Coast (personalist dictatorships)	
	Real	Synthetic	Real	Synthetic
Log(GDP per capita)	8.033	8.033	8.033	8.025
Armed conflict	0	0	0	0
Lagged health expenditure	7.035	7.036	-	-

Note: All variables were averaged for the 1997–2003 period.

Supplementary Tables 5. Country Weights in the Synthetic Ivory Coast

Ivory Coast (dominant party dictatorships)		Ivory Coast (personalist dictatorships)	
Country	Weights	Country	Weights
Angola	0	Armenia	0.061
Cambodia	0	Azerbaijan	0
China	0	Belarus	0.178
Ethiopia	0	Burkina Faso	0.076
Laos	0.006	Cameroon	0.026
Malaysia	0.012	Chad	0.027
Mozambique	0.004	Congo Kinshasa	0
Singapore	0	Gambia	0.016
Tanzania	0.003	Georgia	0
Tunisia	0.121	Guinea	0.045
Vietnam	0.008	Kazakhstan	0.070
Zambia	0.010	Kyrgyzstan	0.057
Zimbabwe	0.836	Libya	0.093
		Mauritania	0.059
		Russia	0
		Sudan	0
		Tajikistan	0
		Togo	0.240
		Uganda	0
		Yemen	0.051

Note: we chose countries where dominant party (left panel) or personalist dictatorships (right panel) exist from 1997 to 2003. For example, we excluded Kenya (1997–2002), Senegal (1997–2000) and Mexico (1997–2000) from the donor pool (left panel).

The Road to Democratic Consolidation

Dominant party regimes, party politics and democratic survival

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ABSTRACT

This study examines why regime survival rates vary across young democracies. While scholars have identified a host of causal factors, those explanations ignore the influence of antecedent authoritarian rule on these factors. This study argues that there is a relationship between the type of authoritarian regime and the survival of subsequent democracies. Old regime elites inherit valuable resources from former dominant party regimes that may increase the likelihood of authoritarian successor parties (ASPs) performing well under democracy. This, in turn, for one thing, reduces the fragmentation of the new ruling parties, which inoculates young democracies against political instability that could lead to regime collapse. For another, it can effectively check the government's power, thus preventing a new ruling party from crossing the line from democracy to authoritarianism. This study considers the hypothesis that dominant party regimes have a positive impact on the performance of ASPs under democracy, thus contributing to the longevity of succeeding democracies, and tests that hypothesis by combining quantitative and qualitative analysis.

Keywords: authoritarian successor parties, dominant party regimes, party politics, democratic survival

INTRODUCTIONS

Why are the survival rates of nascent democracies different? Scholars attribute the variation to a host of causal factors, including constitutional designs (Cheibub 2007; Elgie 2011 etc.), legal institutions (Gibler and Randazzo 2011; Reenock et al. 2013 etc.), party system (Kuenzi and Lambright 2005; Wang 2014 etc.), economic development (Gasiorowski 1995; Przeworski and Limongi 1997 etc.), inequality (Haggard and Kaufman 2012; Houle 2009 etc.), foreign aids (Dietrich and Wright 2015; Kono and Montinola 2009 etc.), natural resources (Ross 2001; Smith 2004 etc.), social diversity (Blimes 2006; Wegenast and Basedau 2014 etc.), and international influence (Leeson and Dean 2009; Pevehouse 2002 etc.), as well as their causal mechanisms in the democratic period. However, these explanatory factors may be shaped by antecedent authoritarian rule. Further, though many studies have explored the lasting effects of preceding authoritarian regimes on party politics (Dinas and Northmore-Ball 2020; Frantz and Geddes 2016; Grzymala-Busse 2006; Hicken and Kuhonta 2011; Kitschelt 1995; Riedl 2014), civil society (Bernhard and Karakoç 2007; Neundorf et al. 2020; Pop-Eleches and Tucker 2011; Shirah 2014) and transitional justice (Pinto 2006) in new democracies, we know little about the effect of antecedent authoritarian rule on the survival of post-authoritarian regimes. To fill the gap, this study combines two dimensions of research and explores how preceding dictatorships influence the survival of subsequent democracies.

Authoritarian rule plays a role in the survival of subsequent democracies. One main reason is that many nascent democracies emerge from authoritarian regimes that shaped the institutions, party politics, and

social structure of their country, which, in turn, influenced autocratic survival. It is thus reasonable to infer that the political dynamics in dictatorships influence the longevity of ensuing democracies. The other is that new democracies face a greater risk of reversal into authoritarian regimes in the few years immediately after democratisation (Svolik 2008: 158). Thus, a good foundation laid by antecedent dictatorships helps new democracies ensure their survival in the early years of democratic consolidation.

Except for a study on the effects of competitive and noncompetitive authoritarianism on democratic survival (Shirah 2014), comparative research on the types of authoritarian regimes and their relationship with the durability of the subsequent democratic regime is scant. It is important to fill this gap in the literature because institutional legacy is based not on the existence of competitive electoral experience in dictatorships but the extent to which power is shared within the ruling bloc.

This study chooses a binary classification of dictatorships—dominant and non-dominant party regimes—to distinguish the extent of power-sharing within the ruling bloc, arguing that dominant party regimes lead to longer-lasting democracies compared to their non-dominant counterparts. In a dominant party regime, a power-sharing ruling party prompts the elites to create positive resources to sustain the party and ensure its survival. After democratisation, such parties become the authoritarian successor parties (ASPs), defined as former ruling parties or parties newly created by high-level authoritarian incumbents in preceding ruling parties in response to democratic transitions (Loxton 2015: 158-159). ASPs often inherit valuable resources from their predecessors, including a party brand, an institutionalised mechanism, a

territorial organisation, and sources of party finance and cohesion. Thus, ASPs from dominant party regimes achieve great success in post-authoritarian politics. The strong performance of an ASP may encourage cooperation among the opposition—if it performs strongly and wins in the first democratic elections—or reduce fragmentation of the new ruling parties—if it emerges as a strong contender in the first or subsequent democratic elections—which will decrease the likelihood of political instability that could lead to extra-institutional forces-driven regime change. Further, ASPs can effectively check the government's power, thus reducing the new ruling parties' potential to become autocratic. In sum, this study argues that dominant party regimes have a positive impact on the performance of ASPs and, thus, contribute to the longevity of succeeding democracies.

The study combines quantitative methods with qualitative analysis. We confirm the argument using data gathered between 1945 and 2010 from 109 democracies and employing mediation analysis with the survival data. Further, we demonstrate the internal causal mechanism through process-tracing methods in the case of Taiwan, combining different types of mechanistic evidence.

Moreover, our research has several implications for the study of post-authoritarian party politics. Existing literature highlights the importance of dictatorial strategy towards party politics (Frantz and Geddes 2016; Hicken and Kuhonta 2011) and political transition (Grzymala-Busse 2006; Kitschelt 1995; Riedl 2014) in explaining the post-authoritarian party system. These seminal works, however, fail to consider how the abundance or scarcity of inherited resources determines the performance of ASPs, which, in turn, affect

how the new ruling parties react. This study contributes to the existing literature on the dynamics of ASPs in democracies (Grzymala-Busse 2002; Ishiyama and Quinn 2006; Langston 2006). ASPs performing well in post-authoritarian politics are often ones that have inherited positive resources (Loxton 2015: 160-164). This study argues that elites of dominant party regimes are likely to have created these resources.

POST-AUTHORITARIAN PARTY POLITICS

Scholars have associated post-authoritarian party politics with the following: (1) how preceding dictators shape party politics, and how these party configurations are inherited by subsequent democracies (Frantz and Geddes 2016; Hicken and Kuhonta 2011), and (2) how the dictators dominate or develop distinct strategies for political transition (Grzymala-Busse 2006; Kitschelt 1995; Riedl 2014).

In an empirical analysis of party system institutionalisation in Asian countries, Hicken and Kuhonta (2011: 584) confirm that party system institutionalisation is more likely when the ruling party was highly institutionalised under the previous authoritarian regime. For example, the lowest level of electoral volatility was observed in post-1969 Malaysia, Singapore, and Taiwan, where the organisational structure of the respective ruling parties—the Alliance Party, People's Action Party, and Kuomintang—was adaptable, complex, autonomous, and coherent. Instead of focusing on how the dictators institutionalise their parties, Frantz and Geddes (2016) analysed the effect of dictatorial strategies towards pre-existing parties on party system institutionalisation in Latin American democracies. They

argue that if a dictator determines to repress or ally with a traditional party, the party either goes underground or becomes the official ruling party and, thus, at least maintains its linkages to loyal voters until their return to democracy. Conversely, new parties that a dictator creates to divide the opposition will lead to the realignment of voter loyalty, adding instability to the future party system under democracy.

While these research studies highlight the significance of authoritarian party dynamics for post-autocratic party systems, the role of ruling parties is also important in the transition to democracy. Frantz and Geddes (2016: 9) argue that 'when authoritarian governments do create new ruling parties…they create incentives for those with a vocation for politics to expend their energy, either in the regime-sponsored party or in the tame opposition'. If a new ruling party totally controls the transitional politics, those planning on establishing other parties will be discouraged from doing so. This is because the ruling party will impose a higher barrier of entry into politics for other parties and, thus, decrease their probability of political survival. In sum, the stability of a party system in succeeding democracies depends not only on party politics of antecedent dictatorships but also on party competition in the transition phase.

Post-authoritarian party politics is closely related to how dictators and their ruling parties react to political transition. When communist leaders set up patronage networks to prevent intra-elite contestations and co-opt the opposition, they would likely maintain their hegemonic status in democratic transitions and create institutions to their advantages. Consequently, party competition centres on personalistic power, which contributes to a fragmented

party system in post-communist regimes (Kitschelt 1995). By contrast, robust party competition is more likely when communist parties initially exit from the power centre during the transition period but resurge through the transformation of organisations, ideologies, and policy outlines (Grzymala-Busse 2006). In African democracies, where local elites are incorporated into a regime, the dictator has more bargaining power than the opposition during the transition period and, accordingly, imposes rules to limit electoral competition. Conversely, when local elites are substituted with newly created *nomenklatura*, they defect and choose to align with the opposition during the transition. Consequently, the opposition wins and pushes open participation (Riedl 2014).

While these seminal works highlight the importance of preceding dictatorial rule in explaining party politics during the transition period, which, in turn, influences the party system of subsequent democracies, two points merit further discussion. First, no comparative study other than Grzymala-Busse's (2007) has examined the interplay of ASPs and their opponents. When a dictator seeks to co-opt local elites, dominating transitional politics and limiting electoral competition, the high barrier to entry during the transition period causes the opposition to cooperate, which leads to higher party system institutionalisation (Riedl 2014). This argument, however, fails to explain why these 'anti-incumbent alliances' do not lose the incentive to remain united even after winning the battle. Further, the party system in a democratic country does not always become unstable if the ruler in preceding autocracies tends to create the new party (Frantz and Geddes 2016). This is because a dominant ASP may lead a divided opposition to realign, thus reducing the likelihood of

an unstable party system.

Second, these seminal works introduce the concept of the hegemonic status of a dictator during democratic transitions into the study of the determinants of post-authoritarian party politics. The origin of their dominant status, however, remains unclear. Further, it is possible for ASPs to still play a significant role after democratisation, despite not controlling the transition process. It is the case when the authoritarian incumbents lose an election and allow the winner of the election to assume office and, thus, cannot design the rules of the new democratic game to their advantage. However, they can still return to power when possessing and inheriting substantial antecedent political strengths and resources. In Mexico, for instance, the old regime's clientelistic structures and business community allies, and the government's mediocre economic performance explain the Institutional Revolutionary Party's return to presidency in 2012 (Flores-Macías 2013: 135-137). Therefore, this study argues that valuable resources that old regime elites inherit determine the performance of the ASPs, which affects the post-authoritarian party system.

DOMINANT AND NON-DOMINANT PARTY REGIMES

This study chose a binary classification of dictatorships, namely, dominant and non-dominant party regimes. Geddes et al. (2014: 318) categorise autocracies based on 'whether control over policy, leadership selection, and the security apparatus is in the hands of a ruling party (dominant-party dictatorships), a royal family (monarchies), the military (rule by the military institution), or a narrower group centred on an individual dictator (personalist dictatorships)'.

This classification is mainly based on the extent to which decision-making power is distributed within the ruling bloc, which in turn determines their influence once democratisation is complete.

In dominant party dictatorships, ruling party elites prevent the dictator from changing the status quo to his advantage because the party is a collective decision-making platform. A personalist leader may establish a ruling party for a credible commitment with elites. He and his narrow coalition, however, still enjoy substantial discretion (Reuter and Remington 2009) or can determine a potential successor (Brownlee 2007a: 610-612). As the number of the ruling elites whose consent is required to change the status quo decreases, policy stability also decreases (Tsebelis 2002: 25). In other words, the status quo is more likely to be changed in a personalist regime, which marginalises the authoritarian party.[1]

The situation is different in military dictatorships or monarchy. In all probability, a collective decision-making platform is identified in these regimes if an authoritarian institution is created to play such a role. However, because of the common interest within a junta or royal family (Chin 2015; Nassif 2017), their incentives and goals align with each other.[2] Policy stability decreases when the homogeneity of players who are required to agree to change the status quo decreases (Tsebelis 2002: 30). Therefore, elites who have a place

[1] In fact, these parties as 'parties of power' are created for the sole purpose of supporting the dictators. For instance, Nazarbayev established Otan or Nur Otan for amassing leaders' popularity and channeling mass consensus through elections (Del Sordi 2011). Personalist rule often predates these ruling parties, and designates a successor by hereditary succession (Brownlee 2007a: 610-612).

[2] For example, in regime change coups, soldiers from disenfranchised socio-economic classes or ethnic groups often hold common interests to radically change current political institutions. In leadership reshuffling coups, soldiers often guard conservative policy stances and fight against incompetent military leaders (Chin 2015: 5-6). For the royal family, how to ensure despotism or hereditary succession is the foremost and common interest.

in decision-making but are not soldiers or royal members are incapable of maintaining the status quo. Under a dominant party regime, conversely, elites with different backgrounds, ideologies, and policy expectations are likely to be recruited into the ruling party and, consequently, hold decision-making power. In this way, policy stability increases with the heterogeneity of players.

Dominant party regimes provide the incumbent with positive resources and, thus, are more endurable than other types of dictatorships (Magaloni 2008). One such resource is a source of party cohesion. Where decision-making power is shared by the dictator and the ruling party (Magaloni and Kricheli 2010: 127), instead of being concentrated in one of them (e.g., a royal family, the junta, or the dictator), the dictator can resolve commitment problems by loyally distributing positions, spoils, and privileges among the ruling elites (Magaloni 2008: 723). Further, they can mitigate intra-elite conflicts by offering the forum of collective agenda setting (Brownlee 2007b) or coordinate suitable elites to run for office in specific electoral districts (Reuter and Remington 2009: 506). Therefore, elites are less likely to consider defecting to opposition parties.

Another resource is party organisation and finance. In dominant party regimes, a power-sharing ruling party prompts elites to create positive resources by either diverting public funds for partisan use (Greene 2007) or developing strong organisational power (Svolik 2012) to sustain the party and ensure its survival. First, the ruling party is a power-sharing platform; therefore, no single actor determines everything. Thus, party elites are not anxious about their benefits being withdrawn by the dictator or party assets being used for personal gain. Instead, they are willing to invest in the party and develop a

robust source of party finance. Second, the dictator neither arbitrarily appoints his offspring as the successor nor has the final words on personnel administration. Instead, institutionalised mechanisms for the recruitment and advancement of elites are created, enabling them to work for the party or the State. Moreover, once promoted to the top of the party leadership or political office, they could get involved in policy-making and leadership succession decisions. Thus, a comprehensive territorial organisation is necessary for recruiting party members. These power-sharing designs exploit members' opportunism and career aspirations to create a stake in the perpetuation of the regime (Svolik 2012: 163).

Another resource is a party brand. A dominant party regime successfully attracts investments because the party establishes formal rules on intra-party transparency in terms of access to information, which constrains the actions of the dictator and breaks down the barriers to collective action by party elites (Gehlbach and Keefer 2011). Consequently, it fosters high economic growth. Further, as the dictator of dominant party regimes cannot derive support from a narrow group, he needs to tie a large group of people to the regime elite, making politics more representative of different social groups. Therefore, the dictator needs to attend closely to the population health status and increase health expenditure (Yan and Lin 2019). In conclusion, they can establish strong brands by promoting economic development and providing public goods.

While dominant party regimes and authoritarian stability are strongly linked, this does not necessarily mean that regimes do not become democracies. For example, the opposition can topple current authoritarian

regimes through successful electoral strategies. Bunce and Wolchik (2010: 47) concluded that the successful defeat of autocrats primarily hinged on the extent to which the opposition and their allies used novel and sophisticated strategies (e.g., collaboration with youth movements) to maximise their chance of winning elections. Further, authoritarian incumbents are likely to choose democratisation when regimes possess substantial political strengths and resource advantages (Slater and Wong 2013). In other words, ruling parties tend to concede when they are confident that democratic politics will secure their continued dominance, or can at least be ensured that their party will be preserved from an electoral standpoint. Once they are democratised, these enduring regimes can have positive impacts on democratic survival, as old regime elites may inherit valuable resources that can facilitate the strong performance of ASPs.

ASPs AND DEMOCRATIC SURVIVAL

ASPs achieving significant success in post-authoritarian politics often inherit positive resources, including a party brand, an institutionalised mechanism, a territorial organisation, and sources of party finance and cohesion, from their past autocratic rule (Loxton 2015: 160-164). A strong record on economic development, infrastructure, or national defence justifies the party's continued leadership, while a robust source of party finance and territorial infrastructure facilitate election campaigning and mobilisation. Institutionalised recruitment or advancement mechanisms constitute a solid foundation for fulfilling the promise to promote opposition elites joining the organisation.

ASPs from dominant party regimes often perform well due to these valuable resources. For example, the decision of the Bulgarian Socialist Party (BSP) to maintain organisational continuity with its predecessor, the Bulgarian Communist Party (BKP), and inherit the BKP's enormous property, along with its established institutionalised mechanism, nationwide grassroots organisation, and source of party finance, allowed it to remain the largest party in terms of membership and the richest party even after its consecutive defeats in 1997 and 2001. Further, this helped it to eventually return to power in 2005 (Spirova 2008: 485–486). In Cape Verde, despite suffering resounding defeats, leaders and members of the African Party for the Independence of Cape Verde (PAICV), based on their history of violent struggle, remained united. Furthermore, the PAICV ran on its record as the champion of independence and solid performance in socioeconomic matters and operated as a constructive opposition (Meyns 2002: 159-161).

In non-dominant party regimes, however, the official party offers only limited power-sharing function. These parties, as a political vehicle of authoritarian rulers, serve to increase the leaders' popularity and garner mass approval during elections.[3] Further, these parties are built to transform citizens into true believers through mass indoctrination, making it more likely for the society to be ideologically monolithic.[4] Despite the prominent role in mobilising voters, these parties lack an institutionalised mechanism to ensure power-sharing between elites, while the tilting of the power balance towards

[3] Communal Councils, or para-partisan organisations that subsequently developed into board bases of the United Socialist Party of Venezuela, rendered assistance to Hugo Chávez in distributing resources for local infrastructure, helping him win the allegiance of the masses (Handlin 2016: 1248-1249).

[4] For instance, the Workers' Party of Korea inculcated in North Koreans the Juche Ideology of Kim Il-sung, that is, everything must be reliant on the masses, for the purpose of mobilising ideological unity and maintaining the hegemonic rule through ideological leadership (Choi 2017: 787).

the dictator reduces elites' incentive to fund their party. After losing power, old regime elites hardly depend on immature organisations or less-institutionalised party financing to be voted back into office. In the Philippines, Ferdinand Marcos created Kilusang Bagong Lipunan (KBL), a clientelistic party with weak organisational power, and used it for the systematic exploitation of State resources to fulfill the needs of Marcos and other self-serving politicians, instead of strengthening the party (Quimpo 2009: 340). After democratisation, KBL fared poorly in all legislative elections and gradually became marginalised.

A positive effect of ASPs on democratic survival is the effective check they place on the government's power. As ASPs are still veto players, there is no room for new ruling parties to be divided. For instance, after its defeat in the 1990 Nicaraguan elections, the long-ruling party Sandinista National Liberation Front (FSLN), apart from conducting an organisational reformation, mobilised its grass-root organisations to protest against the new government. To prevent FSLN from returning to power, Arnoldo Alemán brought together divergent liberal forces to establish the Constitutionalist Liberal Party and coalesced with three other parties to form the Liberal Alliance (Puig 2010: 89-92). As a strong contender in the first and subsequent democratic elections, FSLN prevented the fragmentation of the new ruling coalition, thereby avoiding political instability and a consequent regime collapse. The other effect of powerful ASPs is that they facilitate the emergence of the main opposition party. This significantly reduces the odds of fragmentation. For example, following the overwhelming victory of the National Salvation Front (FSN), the successor to the Romanian Communist Party, over a host of poorly

organised opposition parties in the first democratic election, the Christian Democratic National Peasants' Party (PNT-CD) decided to form a consistent alliance of centre-right parties with the main objective of opposing FSN (Pop-Eleches 2008). FSN (later FDSN/PDSR) and PNT-CD were the two primary political forces in Romania in the 1990s.

In Thailand, by contrast, poor performance of ASPs has contributed to overall political instability. High fragmentation constitutes a challenge to the governability of democratic regimes, as many ineffective and short-lived multi-party coalition cabinets within Thailand have shown. Instability gave Thai military leaders the opportunity to launch coups. For example, Chatichai's multi-party coalition government (1988-1991) was ridden with corruption and factional conflict, which the military used as a pretext for its intervention in 1991 (Bhuchongkul 1992).

ASPs also reduce the potential of new ruling parties to change formal rules that lead to autocratisation by limiting competition in subsequent elections. The success of ASPs assures the electorates that if they are unsatisfied with the performance of the government, they have a clear alternative. In this scenario, ASPs find it easier to mobilise public support when they criticise the government's policies, condemn its economic or democratic failure, or propose bills to curtail the government's power, while the incumbents find it difficult to alter the electoral outcome through extensive vote-buying, by imposing a ban on other parties, or by beating, jailing, or killing opposition leaders or supporters.

Conversely, the failure of ASPs often encourages the new ruling parties to cross the line from democracy to authoritarianism. This is because actors

who are in an advantageous position tend to fashion a new constitutional order to cripple their opponents and secure continued rule, which paves the way for gradual autocratisation in post-transition politics. For example, in Pakistan, Zulfikar Ali Bhutto assumed office after his party won an absolute parliamentary majority. Due to the lack of ASPs that effectively checked the government's power, Bhutto easily amended the Constitution and law concerning the use of emergency powers and preventive detention, under which the major opposition party was dissolved and its leaders were arrested (Wheeler 1976: 113). Similarly, in Zambia, the political weakness of the ASP, the UNIP, enabled the new president Frederick Chiluba and his party MMD to pass a constitutional amendment that prevented the most important opposition candidate from running for presidency (Baylies and Szeftel 1997).

In sum, compared to non-dominant party regimes, a power-sharing ruling party of dominant party regimes provides the incumbent with more valuable resources, including party finance, territorial organisation, and party brand. After democratisation, ASPs inheriting positive resources from dominant party regimes continue to challenge the 'new' ruling parties or coalitions, thus acting as the strongest check on the government's power and decreasing the likelihood of collapse. Thus, the study made the following hypothesis:

H1: Dominant party regimes have a positive impact on the longevity of succeeding democracies.

H1.1: Dominant party regimes lead to a strong performance of ASPs and, thus, have a positive impact on the longevity of succeeding democracies.

QUANTITATIVE ANALYSIS

First, the terms were defined. The unit of analysis was 'nascent democracy-year'.[5] Democracies were defined as regimes where the executive achieved power through a direct competitive election, in which at least 10% of the total population was eligible to vote, all major parties were permitted to compete, and neither fraud nor violence determined the election outcome, or through an indirect election by a body at least 60% of which was elected in direct competitive elections (Geddes et al. 2014: 317). A nascent democracy was a country that was ruled by a dictator for some years after 1945, but subsequently transitioned to a democratic political regime.[6] A democratic regime was considered to have ended under the following conditions: (1) if an executive achieved power through undemocratic means, (2) if the government achieved power through democratic means but subsequently changed the formal or informal rules, or (3) if competitive elections were held to choose the government but one or more parties for which substantial numbers of citizens would be expected to vote were banned (Geddes et al. 2014: 317-318). Our data therefore covered 109 democracies, including 1,443 pooled time series and cross section observations between 1945 and 2010 using data from the Geddes, Wright and Frantz (GWF) Autocratic Regimes dataset (see Appendix A).

The dependent variable was the failure or survival time of a democratic regime in years. The independent variables were the type of preceding authoritarian regime, with this research creating a dummy variable where 1 =

[5] Svolik (2008: 164) finds that any country that has been democratic for 52 or more years as of 2001 is estimated to have consolidated with at least 90% probability. In other words, it is nearly impossible for them to embrace autocratic rule again. Consequently, consolidated democracies, such as the Netherlands, Sweden, and the U.K., transformed from the imperial rule, were excluded from the analysis to avoid biased estimation.

[6] Based on the definition, the study excluded countries that experienced autocratic rule in the period of interwar or WWII, but were restored to democracy after 1945, such as Germany, Italy, and Japan.

dominant party regimes and 0 = *non-dominant party regimes* using data from the GWF dataset.[7] A dominant party regime was defined as a regime in which 'control over policy, leadership selection, and the security apparatus is in the hands of a ruling party' (Geddes et al. 2014: 318). The mediator was the performance of ASPs. A dummy variable was created to indicate if ASPs performed well in a new democracy, with 1= ASPs that had a majority of seats in the legislature or whose party members were appointed as the prime minister or won the presidential elections, and 0 = otherwise. Appendix B contains the list of ASPs with superior performance.

A list of control variables influencing the duration of new democracies was added. First, scholars associate the variation in the longevity of democracies with their constitutional design (Cheibub 2007; Elgie 2011 etc.), and, thus, three types of constitutional systems, namely presidentialism, semi-presidentialism, and parliamentarism, were included. Second, we used annual economic development and growth to study the effects of economic conditions on the duration of a democratic regime (Svolik 2008; Gasiorowski 1995; Przeworski and Limongi 1997 etc.). The two covariates based on Maddison Project's data were annual GDP per capita and GDP growth. Third, oil revenues provide a government with enough money for patronage and internal security, thus making it less likely for a country relying heavily on natural resources to be democratic (Ross, 2001; Smith, 2004 etc.). This study considered this effect by using a continuous variable for natural resource

[7] For countries moving back and forth between autocracies and democracies, the coding of preceding authoritarian regime lies between the two democracies. If a democracy experienced two or more consecutive but distinct cases of authoritarian rule, the recent one was recorded. The alternative method was to use a new category to distinguish those democracies from different authoritarian regimes in a row. However, it posed no effects on the coding results because democracies undergoing transitions from dominant party regimes did not go through other types of autocracies.

income as a percentage of the GDP. Fourth, democracies are less likely to survive in divided societies (Blimes 2006; Wegenast and Basedau 2014 etc.). Measures of ethnic and religious fractionalisation were thus added to the analysis. Fifth, British colonial rule is thought to have promoted post-independence democracy, and a dummy variable was included for former British colonies (La Porta et. al. 1998). Further, it has been suggested that the particular timing to accomplish democratisation and prior experiences with democracy affect democratic survival. This analysis thus controlled for the year that the country became democratic and the number of democratic transitions. Finally, transitional similarity in post-Soviet countries shows that democratic survival may have been influenced by the lasting effects of antecedent USSR rule rather than institutional characteristics within dominant party regimes. Therefore, a dummy variable was included to indicate whether a country was governed by the USSR dictatorship during the Cold War.[8] The summary of variables, operationalisation of indicators, and data source are shown in Appendix E.

To confirm our theoretical expectations, this research used the Cox PH model with time-variant covariates.[9] Further, a mediation model sought to explain the mechanism that links the type of former authoritarian regime to the

[8] It includes 15 sovereign States that emerged and re-emerged from the USSR following its breakup in 1991, and the closest allies of the Soviet Union, sometimes called the Eastern Bloc, including Bulgaria, the Czech Republic, Hungary, Poland, Romania, and Slovakia. Yugoslavia and Albania are not included because they ceased being allied to the Soviet Union in 1948 and 1966, respectively.

[9] Based on PH assumptions, the hazard ratio is constant over time. To check if PH assumptions were violated, this study used Harrel and Lee's test. When PH assumptions are not met, this analysis should introduce time-dependent covariates, that is, the extended Cox model. This study considers this effect by multiplying by time or some function of time, like the natural log form of time or Heaviside function, the choice of which is judged by graphical approaches.

duration of a democratic regime.[10] Following Baron and Kenny's (1986) steps for mediation, a mediation effect was found to exist when (1) the type of authoritarian regime and ASP performance both affect democratic survival; (2) the type of authoritarian regime is associated with ASP performance; (3) the effect of the authoritarian regime type on democratic survival disappears (or at least weakens) when ASP performance is included in the regression.

We should control an alternative pathway that links the type of regime and economic development to succeeding democratic survival. Scholars argue that dominant party regimes create formal rules that constrain the power of dictators and foster higher economic growth and investment (Gehlbach and Keefer 2011; Wright 2008). Consequently, the more economically developed a country is at the outset of democratic development, the more likely its regime is to survive. Thus, the analysis includes annual GDP per capita to test the validity of the proposed causal mechanisms.

Regarding a test for robustness, we first investigated how the type of the preceding authoritarian regime influences the survival of a democratic regime in the initial 19 years, as democracies face a greater risk of reversal into authoritarian regimes in the few years immediately after democratisation (Svolik 2008: 158) (see Supplementary Figure 1).[11] Second, this study considered the longer regime, rather than the most recent one, as the antecedent authoritarian rule if a democracy had experienced consecutive but distinct authoritarian regimes.[12] Third, a military elites-led transition places a

[10] Although the Cox PH model combined with non-rare outcomes of events cannot offer a measure of mediation effects, at least the product method of mediation analysis provides a valid test of whether the mediation effect exists or not (VanderWeele 2011).

[11] The hazard of democratic collapse remains constant after t=19, despite an upward movement in the cumulative hazard function close to t=47.

[12] Seven democracies were changed in records from antecedent non-dominant to dominant

new democracy at a high risk of failure. A possible reason is that the military can justify its ouster of an illegitimate regime and establishment of a supposedly legitimate democratic government, thus making it more likely to use 'saving the country in a time of crisis' as a pretext to seize power (Marinov and Goemans 2014: 803; Thyne and Powell 2016: 196). Therefore, a dummy variable was included to indicate whether the antecedent regime was military. Fourth, previous studies found that communist regimes differed from most other kinds of authoritarian regimes by not merely being interested in ruling over citizens, but also trying to indoctrinate their ideologies to convert citizens into 'true believers' in the regime, which influenced citizens' attitudes towards the democratic system (Pop-Eleches and Tucker 2011). Instead of post-Soviet States, the study controlled for countries that were governed by a single communist party guided by Marxism–Leninism to capture their common effects on democratic development.[13] Fifth, a prolonged experience with democratic rule should have a strong and positive influence on democratic survival; for example, this may be seen through economic growth (Gerring et al. 2005) or enhanced human development (Gerring et al. 2012). The risk of democratic breakdowns may also increase with an increasing number of past regime collapses (Morrison 2009; Przeworski et al. 2000). Rather than using the year that the country became democratic and number of democratic transitions, this study controlled for both the number of years of democracy since 1945 and the number of all past regime changes. Sixth, based on the existing literature and findings discussed in the first and second chapters, we

party regimes: Azerbaijan (1993-1993), Bolivia (1983-), Georgia (2005-), Lesotho (1994-), Serbia (2001-), Sierra Leone (1997-1997), and Turkey (1962-1980) while Nicaragua (1991-) was changed in records vice versa.

[13] It included post-Soviet States, Albania, former member States of Yugoslavia, Benin, the Republic of the Congo, Madagascar, and Mongolia.

should control an alternative pathway that links the type of regime and judicial independence or health expenditures to succeeding democratic survival.[14] Finally, the analysis used the vote and seat share of ASPs as an alternative measure of the performance of ASPs.

A glance at the figure reveals the impact of the type of antecedent authoritarian regime on the survival curve of democratic regimes (see Supplementary Figure 2). Dominant party regimes lead to longer lasting democracies than their non-dominant counterparts. Further, the positive impact of dominant party regimes on succeeding democratic survival was confirmed even if the analysis divided non-dominant regimes into personal, military or hybrid regimes, based on the log-rank test to compare their pattern of survival times. However, the survival curves of democratic regimes that were preceded by personalist dictatorships, military regimes, and hybrid regimes were not significantly different. Thus, the analysis treats non-dominant regimes as a whole category.

Table 1 presents how the threat of collapse of the succeeding democratic regime varied according to the type of authoritarian rule and other variables. Models 1-3 are Cox PH models with time-invariant covariates. Dominant party regimes lowered the risk of subsequent democracies being toppled by 75% (Model 1), 75% (Model 2) and 77% (Model 3). As for the effect of control variables, the risk abruptly increased 3.8-fold (Model 2) or 5-fold (Model 3) if a new democracy adopted semi-presidentialism instead of

[14] Data from the World Bank constitutes the most comprehensive dataset available on global health expenditures, and thus allows us to analyse information from between 1995 and 2010. An insufficient sample size may prevent findings from being extrapolated while increasing the risk that observations are simply the results of chance (Faber and Fonseca 2014). As such, this study controlled the pathway from the type of regime to succeeding democratic survival via judicial independence.

presidentialism as its constitutional design. Further, recent entry into democracy reduced the risk of regime collapse. Thus, a more democratic international context in recent decades has made democracies more immune to authoritarian reversal.

Models 4-5 are extended Cox models used to correct variables from Models 2 to 3, in which PH assumptions were not met. Using rank plots, this study captured the effect of parliamentarism and ethnic fragmentation on the risk of regime change by multiplying by natural log of time ln (t) in Model 4, while adding ethnic fragmentation × ln (t) in Model 5, as shown in Table 1. All models demonstrate that antecedent dominant party rule lowered the risk of abrupt regime collapse in new democracies (Model 4: -73%; Model 5: -77%). All time-variant models were preferred to time-invariant models by the likelihood ratio test. Table 1 confirms our expectation when using the Cox PH model with time-variant and -invariant covariates (Model 6: -64%; Model 7: -70%).

Table 1 Survival analysis on the hazard of democratic regimes collapse, 1945–2010

	Model (1)		Model (2)		Model (3)		Model (4)		Model (5)		Model (6)		Model (7)	
	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-1.398***	0.248***	-1.397**	0.247**	-1.466**	0.231**	-1.319**	0.267**	-1.462**	0.232**	-1.033*	0.356*	-1.190*	0.304*
	(0.525)	(0.130)	(0.616)	(0.152)	(0.637)	(0.147)	(0.621)	(0.166)	(0.635)	(0.147)	(0.571)	(0.239)	(0.680)	(0.207)
Parliamentarism			0.201	1.222	-0.030	0.971	-1.190	0.304	-0.048	0.953	0.343	1.409	0.134	1.143
			(0.413)	(0.505)	(0.456)	(0.442)	(0.827)	(0.252)	(0.457)	(0.436)	(0.424)	(0.597)	(0.473)	(0.541)
Parliamentarism × ln (t)							0.983**	2.673**						
							(0.444)	(1.188)						
Semi-presidentialism			1.339***	3.817***	1.606***	4.982***	1.486***	4.421***	1.613***	5.018***	1.189**	3.285**	1.389**	4.012**
			(0.489)	(1.866)	(0.544)	(2.713)	(0.506)	(2.236)	(0.537)	(2.694)	(0.512)	(1.681)	(0.546)	(2.193)
Ethnic fractionalization			0.860	2.363	-0.016	0.984	-1.099	0.333	-2.040*	0.130*	0.155	1.168	-0.087	0.917
			(0.711)	(1.681)	(0.815)	(0.802)	(1.099)	(0.366)	(1.187)	(0.154)	(0.720)	(0.841)	(0.810)	(0.742)
Ethnic frac. × ln (t)							1.745**	5.728**	1.583**	4.868**				
							(0.729)	(4.175)	(0.711)	(3.461)				
Religious fractionalization			0.241	1.273	0.015	1.015	-0.321	0.726	-0.164	0.849	-0.309	0.734	-0.013	0.987
			(0.917)	(1.167)	(0.986)	(1.000)	(0.921)	(0.668)	(0.992)	(0.842)	(0.927)	(0.680)	(1.032)	(1.018)
Former British colony			1.000**	2.719**	0.729	2.073	1.355**	3.877**	0.846*	2.331*	0.755	2.127	0.616	1.851
			(0.497)	(1.351)	(0.501)	(1.038)	(0.529)	(2.050)	(0.506)	(1.180)	(0.505)	(1.075)	(0.517)	(0.957)
No. democratic transition			-0.110	0.896	-0.074	0.928	-0.107	0.898	-0.039	0.962	0.009	1.009	-0.003	0.997
			(0.189)	(0.170)	(0.208)	(0.193)	(0.190)	(0.171)	(0.211)	(0.203)	(0.201)	(0.203)	(0.218)	(0.217)
Years of entry			-0.050***	0.951***	-0.057***	0.944***	-0.054***	0.949***	-0.059***	0.943***	-0.049***	0.952***	-0.053***	0.948***
			(0.012)	(0.011)	(0.013)	(0.012)	(0.012)	(0.012)	(0.013)	(0.012)	(0.012)	(0.011)	(0.013)	(0.013)
Post-soviet states			-0.058	0.944			0.019	1.019			0.076	1.079		
			(0.720)	(0.680)			(0.726)	(0.740)			(0.868)	(0.936)		
Log GDP pc											-0.729***	0.482***	-0.467*	0.627*
											(0.238)	(0.115)	(0.276)	(0.173)
Growth											-5.810**	0.003**	-6.144**	0.002**
											(2.599)	(0.008)	(2.608)	(0.006)
Oil											0.536	1.709	0.325	1.384
											(0.516)	(0.882)	(0.538)	(0.745)
No. of Subjects	109		109		109		109		109		108		108	
No. of Observations	1443		1443		1443		1443		1443		1441		1441	
Region Dummy	No		No		Yes		No		Yes		No		Yes	
LR chi^2	10.30		36.01		49.91		46.75		55.05		50.54		56.80	
Prob> chi^2	0.0013		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	
Log likelihood	-192.95359		-180.09671		-173.14573		-174.72814		-170.57783		-168.09354		-164.96347	

Note: standard error in parentheses in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Likelihood ratio test: Compared with model 2, model 4 ($chi^2(2) = 10.74$, Pr>$chi^2 = 0.0047$), compared with model 3, model 5 ($chi^2(1) = 5.14$, Pr>$chi^2 = 0.0234$). A list of region dummies: Asia, Africa, Europe, Latin America and Post-soviet states. The study used region dummies instead of unit fixed effects, that is, nascent democracies, because the type of preceding authoritarian regime was a time-invariant covariate. With fixed effects models, the study does not estimate the effects of variables whose values do not change across time. By contrast, a list of region dummies was included to control for unobserved characteristics at the regional level that may bias the predictors and outcomes. For example, researchers have argued that the culture of stressing monism rather than pluralism explain democratic breakdown in Latin America (Lipset 2004).

Table 2. Mediation analysis with survival model, 1945–2010

	Model (1)		Model (2)		Model (3)		Model (4)		Model (5)		Model (6)	
	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-1.404**	0.246**					-0.937	0.392	-1.033*	0.356*	-0.727	0.484
	(0.631)	(0.155)					(0.670)	(0.263)	(0.571)	(0.239)	(0.686)	(0.331)
ASP with better performance			-1.975***	0.139***			-1.825***	0.161***			-1.831***	0.160***
			(0.555)	(0.077)			(0.562)	(0.091)			(0.569)	(0.091)
Log GDP pc					-0.827***	0.437***			-0.729***	0.482***	-0.722***	0.486***
					(0.232)	(0.102)			(0.238)	(0.115)	(0.240)	(0.116)
Growth	-6.863**	0.001**	-6.051**	0.002**	-5.678**	0.003**	-6.279**	0.002**	-5.810**	0.003**	-4.944**	0.007**
	(2.669)	(0.003)	(2.425)	(0.006)	(2.499)	(0.009)	(2.518)	(0.005)	(2.599)	(0.008)	(2.502)	(0.018)
Oil	0.134	1.144	-0.095	0.910	0.607	1.835	-0.166	0.847	0.536	1.709	0.324	1.383
	(0.484)	(0.553)	(0.481)	(0.438)	(0.523)	(0.959)	(0.483)	(0.409)	(0.516)	(0.882)	(0.514)	(0.711)
Parliamentarism	0.256	1.292	0.003	1.003	0.315	1.370	0.017	1.018	0.343	1.409	0.039	1.040
	(0.418)	(0.540)	(0.420)	(0.421)	(0.428)	(0.586)	(0.423)	(0.430)	(0.424)	(0.597)	(0.431)	(0.448)
Semi-presidentialism	1.284***	3.612***	1.252***	3.498***	1.051**	2.861**	1.259***	3.523***	1.189**	3.285**	1.244**	3.469**
	(0.489)	(1.765)	(0.474)	(1.660)	(0.496)	(1.419)	(0.474)	(1.671)	(0.512)	(1.681)	(0.502)	(1.743)
Ethnic fractionalization	0.684	1.982	0.868	2.382	0.193	1.213	0.909	2.482	0.155	1.168	0.407	1.503
	(0.728)	(1.442)	(0.744)	(1.772)	(0.742)	(0.900)	(0.728)	(1.806)	(0.720)	(0.841)	(0.712)	(1.070)
Religious fractionalization	-0.142	0.868	0.257	1.293	-0.264	0.768	0.126	1.134	-0.309	0.734	-0.031	0.970
	(0.955)	(0.829)	(0.941)	(1.217)	(0.939)	(0.721)	(0.926)	(1.051)	(0.927)	(0.680)	(0.883)	(0.856)
Former British colony	1.101**	3.008**	0.874*	2.397*	0.659	1.933	0.924*	2.520*	0.755	2.127	0.719	2.053
	(0.506)	(1.522)	(0.519)	(1.244)	(0.495)	(0.957)	(0.515)	(1.297)	(0.505)	(1.075)	(0.499)	(1.024)
No. democratic transition	-0.121	0.886	-0.175	0.839	0.086	1.090	-0.237	0.789	0.009	1.009	-0.089	0.915
	(0.191)	(0.169)	(0.197)	(0.165)	(0.198)	(0.216)	(0.201)	(0.159)	(0.201)	(0.203)	(0.214)	(0.196)
Years of entry	-0.047***	0.955***	-0.054***	0.947***	-0.050***	0.951***	-0.052***	0.949***	-0.049***	0.952***	-0.059***	0.943***
	(0.012)	(0.012)	(0.013)	(0.012)	(0.012)	(0.011)	(0.013)	(0.012)	(0.012)	(0.011)	(0.013)	(0.012)
Post-soviet states	-0.438	0.645	-0.711	0.491	-0.440	0.644	-0.118	0.889	0.076	1.079	0.578	1.782
	(0.788)	(0.509)	(0.755)	(0.371)	(0.790)	(0.508)	(0.856)	(0.761)	(0.868)	(0.936)	(0.933)	(1.663)
No. of Subjects	108		108		108		108		108		108	
No. of Observations	1441		1441		1441		1441		1441		1441	
LR chi^2	40.51		53.17		47.82		55.43		50.54		65.17	
Prob> chi^2	0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	
Log likelihood	-173.10972		-166.77674		-169.45578		-165.64668		-168.09354		-160.78048	

Note: standard error in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Mediation analysis, as shown in Table 2, revealed that antecedent dominant party regimes reduced the risk of democratic failure by 75%, compared to non-dominant party regimes (Model 1). In addition, good performance of ASPs was associated with a decreased risk of regime collapse (Model 2, -86%), and dominant party regimes were likely to promote ASPs that could achieve considerable success in post-authoritarian politics (see Supplementary Figure 3). When the explanatory variable and the mediator were included, only indirect effects were found to be statistically significant, thus confirming that dominant party regimes lead to a strong performance of ASPs and, thus, have a positive impact on the longevity of succeeding democracies. Table 2 also confirms the proposed causal mechanism controlling the pathway that links dominant party regimes and higher levels of GDP per capita to reduced risk of democratic collapse. Further, our theoretical expectations were confirmed when this study examined succeeding democratic survival in the initial 19 years after democratisation (see Supplementary Table 1), changed the criterion to record antecedent authoritarian rule (see Supplementary Table 2), included former military regimes as an additional control (see Supplementary Table 3), controlled for all post-communist countries (see Supplementary Table 4), controlled for both the number of years of democracy since 1945 and the number of all past regime changes rather than using the year that the country became democratic and number of democratic transitions (see Supplementary Table 5), controlled an alternative pathway that links the type of regime and judicial independence to succeeding democratic survival (see Supplementary Table 6), and used an alternative measure of the performance of ASPs (see Supplementary Table 7).

In sum, dominant party regimes enable better performance of ASPs, thus making it difficult for the subsequent democratic regimes to slide back into authoritarian rule.

CAUSAL MECHANISM: A CASE STUDY

We chose Taiwan as the subject of our case study in light of its long-lasting dominant party rule for nearly 50 years. Longer periods of dictatorships, in all probability, shape political structure, which would, in turn, influence post-authoritarian politics. Moreover, it is an appropriate case for excluding reverse causality, for example, elites facing a well-organised opposition will likely create an official party to counter any threats, making it likely for dominant party regimes to emerge (Smith 2005: 430). It thus increases the likelihood of having effective checks and balances on the government's power after democratic transitions. However, Kuomintang (KMT), the ruling party in Taiwan between 1950 and 1999, had retreated to Taiwan after 1949 following its defeat by the Chinese Communist Party during the civil war. As a result, the origin of dominant party rule was not caused by any situation in Taiwan before 1949.

This study explores the cause-effect link that connects the cause and outcome using the process-tracing methods. Of the four variants of process-tracing, we used theory-testing process-tracing, which starts with conceptualising a plausible hypothetical causal mechanism based on proposed theories and empirical research. Precisely put, each of the constituent parts of the mechanism needs to be theorised and subsequently operationalised. We collected and assessed the available empirical record to

determine whether there is mechanistic evidence suggesting that the mechanism worked as theorised (Beach and Pedersen 2013: 8-9). Figure 1 presents the causal mechanism that links the KMT regime to democratic survival.

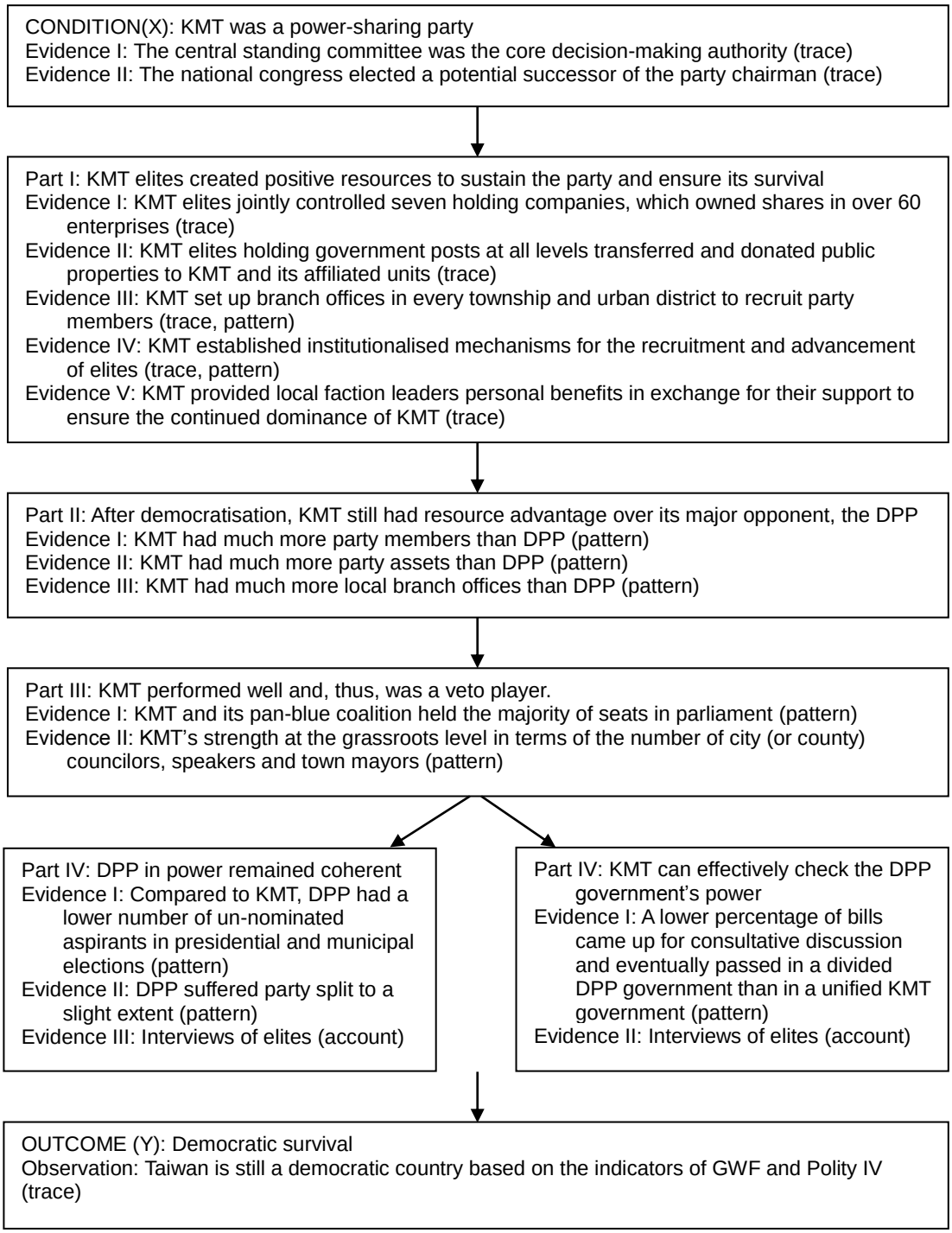

Figure 1 Theory testing process-tracing: How KMT affects subsequent democratic survival

Before 2000: Dominant party rule of KMT

KMT was certainly a power-sharing party. Similar to communist parties adopting the principle of democratic centralism, KMT established 'democratic centralisation of authority' as its organisational principle. Former permanent party chairman Chiang Kai-shek had said: 'In accordance with this principle, the decision-making process is democratic as party members can freely express their opinions, discuss, and vote, while implementation is centralised whereby members must abide by the joint resolution to ensure party unity' (先總統蔣公思想言論總集，1951). Under the principle, the national congress of KMT elected central committee members who, in turn, elected central standing committee members. The central standing committee was responsible for discussing and implementing party affairs during the intersessional period of the national congress and central committee's plenary session (中央委員會組織大綱，1952). It was thus the core decision-making authority of KMT, and the party leader was not in complete control of policy-making (第二次全國代表大會第一次修正中國國民黨黨綱，1926). As for leadership selection, the national congress elected a potential successor (臨時全國代表大會第三次修正中國國民黨黨綱，1938),[15] a mechanism that reduced the likelihood of rulers designating their successors.

As KMT was a power-sharing party, party elites created positive resources to sustain the party and ensure its survival. First, party elites holding government posts at all levels, through appropriation, transferred Japanese properties that had been taken over by Chinese Nationalist government,

[15] From 2001, the leader of the KMT has been elected by all registered and due-paying party members.

specifically 494 enterprises, including oil, steel, and machinery companies (臺灣省接收委員會日產處理委員會結束總報告，1947), to the Taiwan Province Branch of KMT (中國國民黨轉帳撥用國有特種房屋及其基地之調查意見報告，2001) when Japan was defeated and ended its colonial rule in Taiwan. Between 1958 and 1988, local elites donated to KMT and its affiliated units a total of 86 parcels of land and 37 buildings that they owned (中國國民黨轉帳撥用國有特種房屋及其基地之調查意見報告，2001). Further, under the party-State governance system, KMT issued a special licence to party-owned businesses, thus accumulating huge party assets. For example, KMT elites jointly controlled seven holding companies, which owned shares in over 60 enterprises and reinvested in more than 300 enterprises, with total assets worth 600 billion NT dollars (中國國民黨七大控股公司綜合文件，1994).

KMT elites developed strong organisational power to enlarge and consolidate their popular base of support. First, KMT set up branch offices in every township and urban district to recruit party members, with a total of 145,600 in 1952, up from 72,400 in 1949 and rising to 2.61 million under Chiang Ching-kuo's rule between 1978 and 1988 (李松林，1996). Second, KMT in 1969 promoted a robust retirement system for government and party members to replace old-age cadres from mainland China with a new generation of local elites. After Chiang Ching-kuo became the party chairman, KMT, through civil service examinations and elections, started recruiting local elites to serve as cabinet ministers and central standing committee members of the party, thus legitimising its rule (江南，1993；李松林，1993). The percentage of Taiwanese members in the central standing committee rose

from 22.73% in 1978 to 51.61% in 1988 (劉維開，1994), while the percentage of Taiwanese ministers increased from 4% in 1958 to 8% in 1963, 28% in 1972, 38% in 1978, and 41% in 1984 (王春祝，彭懷真，1986). Finally, KMT provided local faction leaders subsidies in agriculture, while also offering them the opportunity to serve in public office and organise farmers' and fishermen's associations with political leanings in exchange for their support to ensure the continued dominance of KMT (陳明通，1995).

After 2000: KMT's loss of power

Because KMT elites had created valuable resources to sustain the party, even after democratisation in 2000, KMT still had an advantage over its major opponent, the Democratic Progress Party (DPP), in terms of the number of party members, party assets, and territorial organisation. KMT's membership was around 1 million in 2005, four to five times greater than DPP's in 2006 (see Supplementary Figure 6). Further, it still owned hundreds of real estate properties and business enterprises. According to annual financial reports of political parties, KMT had 100 times as many assets as DPP between 2005 and 2008 (see Supplementary Figure 7), not to mention illegal party assets. Finally, KMT maintained an immense organisational network across six special municipalities or 16 counties or cities, with one branch office per two to three townships and urban districts, for example, 13 offices for 38 urban districts of Kaohsiung City (中國國民黨官方網站，2019), compared to DPP, which had just one branch office at the municipal level, i.e., one for 38 urban districts of Kaohsiung City (民主進步黨官方網站，2019).

KMT performed well due to the valuable resources that it had inherited

and, thus, was a veto player. Despite losing power, KMT and its pan-blue coalition held the majority of seats in parliament. For example, the coalition won 51.1% and 50.7% of the seats, compared to DPP and its pan-green coalition with 44.4% and 44.9% seats in the 2001 and 2004 legislative elections, respectively (中央選舉委員會選舉資料庫，2019). What was even more striking was the gap in strength at the grassroots level. KMT had at least five times as many town mayors and two times as many city or county councillors as DPP between 2000 and 2008 when KMT was the opposition party. Further, KMT held more than 70% of the city or county council speaker positions, while DPP members did not occupy a single speaker position between 2000 and 2008 (see Supplementary Figure 8). 'KMT's success at the local level can be attributed to its immense organisation and enormous property', said Chen Chu, DPP's Secretary-General to the President, in her biography (林倖妃，2017). For instance, campaign expenditures incurred by KMT on parliamentary candidates in the 2008 election totalled about 142 million NT dollars, compared to DPP's 38 million NT dollars (內政部民政司政黨及政治團體財務申報，2008). An empirical analysis found the positive effect of the campaign spending on the 2008 election results in Taiwan (王鼎銘，范恩邦，2010).

Because KMT is still a veto player, there is no room for the new ruling party, DPP, to be divided. First, even though DPP has seen a growing number of factions and consequent realignment within the party, and one of the factions, the World United Formosans for Independence, formed the Taiwan Independence Party (TIP) in 1997 as it was disappointed by DPP's gradual moderation of its support of Taiwan independence, DPP faces no further split

(see Supplementary Figure 9). By contrast, KMT suffered two major and one minor splits. The first major split came when the New Kuomintang Alliance formed the New Party (NP) in 1993 over KMT chairman Lee Teng-hui's ideological move away from Chinese reunification, while the other was led by Soong Chu-yu, the former Governor of Taiwan Province, who, after his personal clash with Lee, took away several prominent KMT members to set up the People First Party (PFP) in 2000. The third split occurred when Minkuotang was established by former KMT MP Hsu Hsin-ying in 2015. Although DPP also suffered a party split, TIP posed a relatively insignificant threat to DPP, compared to that posed by NP and PFP to KMT. For example, in the first legislative and city and county councilor elections held after the three parties were formed, TIP gained 1.41% (1998), 0.00% (1998), and 0.87% (1998) seats in the pan-green coalition, significantly less than NP's seat share of 19.81% (1995), 23.21% (1994), and 1.88% (1998), and PFP's share of 40.00% (2001), 28.85% (2002), and 11.29% (2002) in the pan-blue coalition (see Supplementary Figure 10). In addition, NP and PFP played the role of spoiler in the presidential and municipal elections while TIP did not (see Supplementary Figure 11).

Second, interviews of elites offer evidence of a coherent DPP. 'In the face of KMT's resource advantage, we must unite and cooperate….All candidates for public office and party high-level posts are negotiated and determined by all major factions, ensuring that no factions are dissatisfied and preventing a split that would benefit KMT', elite D from DPP said. Similarly, elite A from DPP said: 'I don't like New Tide. They always control party power and the negotiations. However, KMT is an abnormal party with huge ill-gotten

assets….It poses unfair competition, so the best way to defeat KMT is to cooperate with New Tide'. Elite C from DPP also said 'I am familiar with KMT, a party closely allied with local factions….As an opposition party, it still dominates at the local level. For us, the strategy is to let all factions co-govern and remain coherent. If we present DPP as a powerful alternative, factional candidates who do not get KMT approval will turn coat'.

Third, compared to KMT, DPP has a lower number of un-nominated aspirants in presidential and municipal elections. For example, candidates that participated in elections without KMT approval amounted to 39, in contrast with DPP, which identified 15 during 12 municipal elections between 1993 and 2018 (see Supplementary Figure 12).

A coherent DPP decreases the likelihood of a political instability-led democratic collapse according to interviews of elites. 'Remaining coherent is important, certainly important, for DPP….If DPP in power was divided, KMT would be likely to use the political instability as a pretext for military intervention', elite F from DPP said. Similarly, elite E from DPP said 'KMT always wants to barter away the sovereignty of Taiwan to China. A divided DPP offers the opportunity for both sides to unify on the pretext of instability'. Elite B from DPP linked a divided DPP to authoritarian nostalgia, saying 'a coherent DPP government shows people that we can secure democracy and liberty that will increase the benefits for the masses….It reduces public disorder and prevents the general public from embracing the authoritarian rule again'.

Further, as KMT is still a veto player, it can effectively check the DPP government's power. A comparative analysis of the percentage of bills passed

offers the necessary evidence: a lower percentage of bills came up for consultative discussion and eventually passed in a divided DPP government (12.96%, 2000-2008) than in a unified KMT government (22.19%, 2008-2016) (立法院議事及發言系統，2019). When asked about this issue, Elite G said ‘as a former MP, our caucus boycotted many DPP government proposed bills, such as proposals for military purchases from the US, which deviated from the script’. Elite I of KMT said ‘we tried our best to prevent the DPP government from passing bills that would restrict party competition….DPP wanted to confiscate our party assets. It was undemocratic’. Elite H spoke about how KMT undermined potential unofficial changes that would have benefited DPP. He said ‘DPP was eager to indoctrinate teenagers through curriculum modifications that KMT would barter away the sovereignty of Taiwan to China.... I suspected that DPP wanted to remain in power forever. At that time we KMT MPs successfully blocked its attempt’.

As a result, Taiwan is still a democratic country. Based on the GWF indicators, KMT or DPP came to power through competitive elections where all parties could participate and all citizens aged more than 20 would be expected to vote. In terms of the indicators of Polity IV, Taiwan is a full democracy where political participation is open and unrestricted, executive recruitment is elective, and constraints on the chief executive are substantial.

CONCLUSION

This study associates legacies of dominant party regimes with the survival of subsequent democracies. We argue that dominant party regimes, compared to their non-dominant counterparts, exert a greater positive impact on

democratic survival after democratisation. This is because valuable resources that old regime elites inherit from dominant party regimes make it more likely for ASPs to perform well under democracy. Thus, for one thing, they reduce fragmentation of the new ruling parties, which inoculates subsequent democracies against political instability that could lead to regime change through extra-institutional forces. For another, they can effectively check the government's power, thus preventing a new ruling party from crossing the line from democracy to authoritarianism. Quantitative analysis and a case study of Taiwan confirm the arguments. In conclusion, dominant party regimes leave good legacies that pave the way for democratic consolidation.

Our findings are similar to Grzymala-Busse's (2007) arguments that state that what matters for good democratic outcomes is the robustness of party competition, which depends on the strength of successor parties (plausible competitors) and their capacity to adapt to democratic politics (clear competitors). However, we further argue that a strong performance by ASPs contributes to the longevity of a democratic regime because of the decreased risk of political instability associated with extra-institutional forces-led regime change and a lower likelihood of autocratisation. The case study and a causal specific hazard model (see Supplementary Figure 5) certainly found that both risks were reduced when ASPs perform well.

Our findings speak to other studies suggesting that inclusionary regimes which rely on broad public support ensure wider populational redistributions of political and socioeconomic benefits, thus fostering stronger antidemocratic attitudes among citizens (Neundorf et al. 2020). These findings have important implications for party competition in new democracies. An

inclusionary regime may result in the strong performance of ASPs, which is based on support from citizens with authoritarian nostalgia and antidemocratic sentiments, thus reducing the fragmentation of new ruling parties. For example, voters in Eastern Europe equally dislike all opposing parties, and do not additionally penalise authoritarian successor parties (Dinas and Northmore-Ball 2020). Future research can investigate the link between voter attitudes toward democracy and the political base as well as the performance of ASPs when more comprehensive data are available.

However, there are three aspects that we failed to consider, namely the effects of sub-types of non-dominant party regimes, a more sophisticated causal pathway, and the supposedly declining effects of authoritarian legacies over time. First, we found that the survival curves of democratic regimes with preceding authoritarian rule as personalist dictatorships, military regimes, and hybrid regimes were not significantly different. However, their links to the modes of democratic breakdown may be different. A democracy that originated from a military regime fails to incorporate the military into the democratic system, thus making it more likely for ensuing democracies to suffer coups. By contrast, a change from personalist rule to a democracy often results in a power void that enables insiders to fashion a new constitutional order to cripple their opponents. Second, we should consider a more sophisticated causal relationship. There are other causal pathways that link dominant party regimes to democratic consolidation. For example, dominant party regimes are likely to accept electoral defeat. A peaceful power transfer to the new incumbent due to electoral defeat represents the former ruler's willingness to maintain inclusive competition that ensures an opportunity to

return to power, thus ensuring that neither side will come to power through undemocratic means (Yan 2019). It indicates how the type of regime is linked to the mode of transition, which, in turn, affects the survival of post-transitional regimes.

The current literature shows the declining effects of authoritarian legacies over time. For example, Pop-Eleches and Tucker (2011) found a declining effect for communist-era legacies on the level of trust in post-communist institutions. There were two main reasons for this. First, older generations, which lived under communism for longer periods, were gradually dying off. Second, more recent democratic experiences gradually overshadow older memories. To test whether the legacies of authoritarian regimes weaken over time, this study included the following interaction term: 'preceding dominant party regimes × time', in which time was measured as the number of years since democratic transition. However, there is no evidence that the impact of authoritarian legacies on succeeding democratic survival increases or decreases over time (HR: 0.93, 95% CI: 0.72-1.20). Findings suggest that, despite temporarily shaping the political attitudes of citizens, antecedent authoritarian rule may reorganise a country's political, economic, and social system, thus exerting a lasting effect on the survival of nascent democracies.

This study has some limitations. One limitation is that the country observations were for the period between 1945 and 2010. However, GWF data—the most comprehensive data set available on the types of authoritarian regimes—allows us to make temporal analysis. To expand the data to 2020 is necessary, but we must ensure there is not some systematic error in the coding of the data after 2011. Another limitation is that this study used only

Taiwan as a case study to confirm the causal mechanism. The advantage to using Taiwan as a case study is for excluding reverse causality—the origin of dominant party rule can be influenced by unobserved factors simultaneously determining the survival of subsequent democracies. Despite providing a nuanced, empirically-rich, holistic account of phenomena, a single case study lacks external validity and provides little basis for generalization of results to the wider population. In the future, the qualitative analysis should be extended to other cases of former dominant party regimes, such as Bulgaria, Cape Verde, and Mexico, which have widely varying political, economic, and social conditions, but never reversed to authoritarian rule after democratisation. Most Different Systems Design could be applied to compare these cases for providing the strongest basis for generalisation and eliminating other potential causes (Seawright and Gerring 2008). Another limitation is the operationalisation of the performance of ASPs. Even if ASPs do not hold a majority of seats in the legislature or win the presidential elections, they could still have the governing or blackmail potential, thus performing well. For one thing, no data exists for examining it. For another, it is doubtful whether ASPs, as minor governing or opposition coalition partners, can reduce the potential of new ruling parties to become a dominant power. The study thus used more strict criteria to determine ASP performance.

At least two policy implications follow. First, efforts to guide autocrats to push for democratisation might be more conducive to the survival of democracy if the use of such strategies is conditional on the existence of ASPs that perform well. Second, scholars of transitions and democratic consolidation should pay closer attention to institutional or non-institutional

factors that raise the likelihood of dominant party regimes forming and then transforming into a democracy.

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Supplementary Table

Table S1. Mediation analysis with survival model, 1945–2010

	Model (1)		Model (2)		Model (3)	
	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-1.421**	0.241**			-0.734	0.480
	(0.632)	(0.153)			(0.687)	(0.330)
ASP with better performance			-1.830***	0.160***	-1.768***	0.171***
			(0.568)	(0.091)	(0.572)	(0.098)
Log GDP pc			-0.778***	0.459***	-0.738***	0.478***
			(0.241)	(0.111)	(0.241)	(0.115)
Growth	-7.332***	0.001***	-5.052**	0.006**	-5.216**	0.005**
	(2.670)	(0.002)	(2.420)	(0.015)	(2.506)	(0.014)
Oil	0.133	1.142	0.406	1.502	0.333	1.395
	(0.484)	(0.553)	(0.512)	(0.769)	(0.515)	(0.718)
Parliamentarism	0.263	1.301	0.008	1.008	0.050	1.052
	(0.418)	(0.544)	(0.433)	(0.436)	(0.432)	(0.454)
Semi-presidentialism	1.295***	3.651***	1.224**	3.400**	1.240**	3.455**
	(0.490)	(1.788)	(0.505)	(1.717)	(0.504)	(1.742)
Ethnic fractionalization	0.622	1.862	0.346	1.414	0.398	1.489
	(0.730)	(1.359)	(0.723)	(1.023)	(0.716)	(1.067)
Religious fractionalization	-0.098	0.906	0.073	1.076	-0.028	0.972
	(0.957)	(0.867)	(0.885)	(0.952)	(0.884)	(0.860)
Former British colony	1.106**	3.023**	0.683	1.979	0.713	2.040
	(0.506)	(1.530)	(0.500)	(0.990)	(0.499)	(1.018)
No. democratic transition	-0.137	0.872	-0.037	0.964	-0.091	0.913
	(0.193)	(0.168)	(0.209)	(0.202)	(0.215)	(0.196)
Years of entry	-0.047***	0.954***	-0.060***	0.942***	-0.059***	0.943***
	(0.012)	(0.012)	(0.013)	(0.012)	(0.013)	(0.012)
Post-soviet states	-0.503	0.605	0.100	1.105	0.551	1.736
	(0.798)	(0.483)	(0.838)	(0.926)	(0.941)	(1.634)
No. of Subjects	108		108		108	
No. of Observations	1200		1200		1200	
LR chi^2	41.68		64.27		65.55	
Prob> chi^2	0.0000		0.0000		0.0000	
Log likelihood	-171.42377		-160.12908		-159.49254	

Note: standard error in parentheses in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S2. Mediation analysis with survival model, 1945–2010

	Model (1)		Model (2)		Model (3)	
	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-0.884*	0.413*			-0.282	0.754
	(0.507)	(0.209)			(0.548)	(0.413)
ASP with better performance			-1.755***	0.173***	-1.721***	0.179***
			(0.508)	(0.088)	(0.513)	(0.092)
Log GDP pc			-0.728***	0.483***	-0.715***	0.489***
			(0.236)	(0.114)	(0.235)	(0.115)
Growth	-6.864***	0.001***	-4.928**	0.007**	-4.995**	0.007**
	(2.635)	(0.003)	(2.425)	(0.018)	(2.453)	(0.017)
Oil	0.244	1.276	0.444	1.559	0.445	1.561
	(0.488)	(0.623)	(0.514)	(0.801)	(0.515)	(0.804)
Parliamentarism	0.332	1.393	0.110	1.116	0.160	1.173
	(0.421)	(0.586)	(0.429)	(0.479)	(0.438)	(0.513)
Semi-presidentialism	1.207**	3.345**	1.151**	3.160**	1.157**	3.182**
	(0.481)	(1.609)	(0.496)	(1.566)	(0.493)	(1.570)
Ethnic fractionalization	0.711	2.035	0.416	1.517	0.393	1.482
	(0.751)	(1.528)	(0.720)	(1.091)	(0.719)	(1.065)
Religious fractionalization	-0.315	0.730	-0.174	0.840	-0.203	0.816
	(0.987)	(0.721)	(0.900)	(0.756)	(0.904)	(0.738)
Former British colony	1.099**	3.002**	0.615	1.850	0.636	1.888
	(0.494)	(1.484)	(0.493)	(0.913)	(0.489)	(0.924)
No. democratic transition	-0.109	0.897	-0.039	0.962	-0.062	0.940
	(0.194)	(0.174)	(0.210)	(0.202)	(0.214)	(0.201)
Years of entry	-0.045***	0.956***	-0.056***	0.945***	-0.055***	0.946***
	(0.012)	(0.012)	(0.013)	(0.012)	(0.013)	(0.012)
Post-soviet states	-0.644	0.525	0.038	1.039	0.224	1.252
	(0.780)	(0.410)	(0.817)	(0.849)	(0.898)	(1.123)
No. of Subjects	108		108		108	
No. of Observations	1441		1441		1441	
LR chi^2	37.89		64.35		64.63	
Prob> chi^2	0.0000		0.0000		0.0000	
Log likelihood	-174.42034		-161.18864		-161.04969	

Note: standard error in parentheses in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S3. Mediation analysis with survival model, 1945–2010

	Model (1)		Model (2)		Model (3)	
	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-1.350**	0.259**			-0.684	0.505
	(0.637)	(0.165)			(0.693)	(0.350)
ASP with better performance			-1.853***	0.157***	-1.802***	0.165***
			(0.572)	(0.090)	(0.574)	(0.095)
Log GDP pc			-0.771***	0.462***	-0.735***	0.480***
			(0.240)	(0.111)	(0.240)	(0.115)
Growth	-6.459**	0.002**	-4.584*	0.010*	-4.745*	0.009*
	(2.702)	(0.004)	(2.430)	(0.025)	(2.508)	(0.022)
Oil	0.100	1.105	0.333	1.395	0.280	1.323
	(0.488)	(0.539)	(0.516)	(0.720)	(0.516)	(0.683)
Parliamentarism	0.190	1.209	-0.078	0.925	-0.028	0.972
	(0.425)	(0.514)	(0.444)	(0.411)	(0.444)	(0.432)
Semi-presidentialism	1.333***	3.792***	1.259**	3.522**	1.272**	3.569**
	(0.489)	(1.856)	(0.504)	(1.774)	(0.503)	(1.796)
Ethnic fractionalization	0.798	2.222	0.410	1.507	0.452	1.572
	(0.740)	(1.644)	(0.726)	(1.095)	(0.719)	(1.130)
Religious fractionalization	-0.178	0.837	-0.0004	1.000	-0.082	0.922
	(0.955)	(0.799)	(0.886)	(0.886)	(0.884)	(0.815)
Former British colony	1.083**	2.954**	0.660	1.935	0.694	2.002
	(0.511)	(1.510)	(0.504)	(0.975)	(0.503)	(1.007)
No. democratic transition	-0.220	0.802	-0.121	0.886	-0.158	0.854
	(0.219)	(0.176)	(0.235)	(0.208)	(0.237)	(0.202)
Years of entry	-0.046***	0.955***	-0.059***	0.943***	-0.058***	0.943***
	(0.012)	(0.012)	(0.013)	(0.012)	(0.013)	(0.012)
Post-soviet states	-0.382	0.682	0.199	1.220	0.614	1.847
	(0.785)	(0.536)	(0.830)	(1.013)	(0.933)	(1.724)
Military regimes	0.388	1.474	0.327	1.387	0.278	1.320
	(0.390)	(0.575)	(0.400)	(0.555)	(0.399)	(0.527)
No. of Subjects	108		108		108	
No. of Observations	1441		1441		1441	
LR chi^2	41.49		64.58		65.65	
Prob> chi^2	0.0000		0.0000		0.0000	
Log likelihood	-172.61751		-161.07448		-160.53896	

Note: standard error in parentheses in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S4. Mediation analysis with survival model, 1945–2010

	Model (1)		Model (2)		Model (3)	
	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-1.232**	0.292**			-0.581	0.559
	(0.629)	(0.184)			(0.625)	(0.350)
ASP with better performance			-1.873***	0.154***	-1.813***	0.163***
			(0.575)	(0.088)	(0.575)	(0.094)
Log GDP pc			-0.745***	0.475***	-0.696***	0.499***
			(0.237)	(0.112)	(0.238)	(0.119)
Growth	-6.851***	0.001***	-4.953**	0.007**	-5.346**	0.005**
	(2.563)	(0.003)	(2.333)	(0.016)	(2.462)	(0.012)
Oil	0.229	1.257	0.396	1.485	0.326	1.385
	(0.493)	(0.620)	(0.512)	(0.761)	(0.517)	(0.717)
Parliamentarism	0.299	1.348	0.010	1.010	0.052	1.053
	(0.421)	(0.568)	(0.433)	(0.438)	(0.432)	(0.455)
Semi-presidentialism	1.465***	4.329***	1.243**	3.465**	1.273**	3.572**
	(0.502)	(2.171)	(0.501)	(1.737)	(0.497)	(1.776)
Ethnic fractionalization	0.851	2.343	0.333	1.395	0.314	1.369
	(0.720)	(1.688)	(0.706)	(0.985)	(0.697)	(0.954)
Religious fractionalization	-0.046	0.955	0.092	1.097	0.011	1.012
	(0.947)	(0.904)	(0.890)	(0.976)	(0.888)	(0.898)
Former British colony	0.980*	2.665*	0.685	1.983	0.723	2.062
	(0.512)	(1.365)	(0.505)	(1.002)	(0.503)	(1.038)
No. democratic transition	-0.189	0.828	-0.044	0.957	-0.090	0.914
	(0.197)	(0.163)	(0.215)	(0.206)	(0.219)	(0.200)
Years of entry	-0.045***	0.956***	-0.059***	0.943***	-0.058***	0.944***
	(0.012)	(0.012)	(0.013)	(0.012)	(0.013)	(0.012)
Post-communist world	-0.879	0.415	-0.015	0.985	0.137	1.146
	(0.669)	(0.278)	(0.660)	(0.650)	(0.667)	(0.764)
No. of Subjects	108		108		108	
No. of Observations	1441		1441		1441	
LR chi^2	41.98		63.89		64.84	
Prob> chi^2	0.0000		0.0000		0.0000	
Log likelihood	-172.37511		-161.41808		-160.9456	

Note: standard error in parentheses in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S5. Mediation analysis with survival model, 1945–2010

	Model (1)		Model (2)		Model (3)	
	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-1.569**	0.208**			-1.136*	0.321*
	(0.615)	(0.128)			(0.662)	(0.213)
ASP with better performance			-1.735***	0.176***	-1.627***	0.196***
			(0.554)	(0.098)	(0.552)	(0.108)
Log GDP pc			-0.507**	0.602**	-0.449**	0.638**
			(0.216)	(0.130)	(0.211)	(0.135)
Growth	-7.718***	0.0004***	-5.638**	0.004**	-6.038**	0.002**
	(2.709)	(0.001)	(2.502)	(0.009)	(2.626)	(0.006)
Oil	0.439	1.551	0.857	2.355	0.649	1.913
	(0.483)	(0.749)	(0.528)	(1.243)	(0.538)	(1.030)
Parliamentarism	0.157	1.170	0.292	1.339	0.278	1.320
	(0.397)	(0.464)	(0.410)	(0.549)	(0.411)	(0.542)
Semi-presidentialism	0.434	1.544	0.261	1.299	0.279	1.322
	(0.422)	(0.652)	(0.410)	(0.533)	(0.411)	(0.543)
Ethnic fractionalization	0.264	1.302	-0.170	0.844	0.014	1.014
	(0.676)	(0.880)	(0.662)	(0.559)	(0.666)	(0.675)
Religious fractionalization	-1.210	0.298	-0.876	0.417	-0.913	0.401
	(0.847)	(0.253)	(0.832)	(0.347)	(0.825)	(0.331)
Former British colony	0.865*	2.375*	0.275	1.316	0.297	1.345
	(0.460)	(1.093)	(0.459)	(0.604)	(0.455)	(0.613)
No. regime breakdown	-0.049	0.953	-0.102	0.903	-0.150	0.861
	(0.089)	(0.084)	(0.089)	(0.080)	(0.095)	(0.082)
The number of years as a democracy since 1945	-0.065**	0.937**	-0.045	0.956	-0.049	0.952
	(0.033)	(0.031)	(0.033)	(0.032)	(0.033)	(0.031)
Post-soviet states	-0.812	0.444	-0.927	0.396	-0.328	0.721
	(0.787)	(0.349)	(0.800)	(0.317)	(0.869)	(0.626)
No. of Subjects	108		108		108	
No. of Observations	1441		1441		1441	
LR chi^2	31.20		45.52		48.98	
Prob> chi^2	0.0000		0.0000		0.0000	
Log likelihood	-177.76346		-170.60177		-168.87474	

Note: standard error in parentheses in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S6. Mediation analysis with survival model, 1945–2010

	Model (1)		Model (2)		Model (3)	
	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-1.404**	0.246**			-0.098	0.906
	(0.631)	(0.155)			(0.669)	(0.606)
ASP with better performance			-1.396**	0.247**	-1.389**	0.249**
			(0.591)	(0.146)	(0.593)	(0.148)
Log GDP pc			-0.520**	0.595**	-0.517**	0.596**
			(0.235)	(0.140)	(0.235)	(0.140)
Judicial independence			-4.789***	0.008***	-4.716***	0.009***
			(1.424)	(0.012)	(1.502)	(0.013)
Growth	-6.863**	0.001**	-5.014*	0.007*	-5.021*	0.007*
	(2.669)	(0.003)	(2.616)	(0.017)	(2.627)	(0.017)
Oil	0.134	1.144	0.605	1.831	0.591	1.807
	(0.484)	(0.553)	(0.523)	(0.958)	(0.531)	(0.959)
Parliamentarism	0.256	1.292	0.669	1.953	0.663	1.940
	(0.418)	(0.540)	(0.481)	(0.940)	(0.482)	(0.936)
Semi-presidentialism	1.284***	3.612***	1.114**	3.047**	1.117**	3.056**
	(0.489)	(1.765)	(0.525)	(1.600)	(0.525)	(1.605)
Ethnic fractionalization	0.684	1.982	1.097	2.996	1.088	2.968
	(0.728)	(1.442)	(0.805)	(2.413)	(0.805)	(2.388)
Religious fractionalization	-0.142	0.868	-0.692	0.501	-0.685	0.504
	(0.955)	(0.829)	(0.920)	(0.461)	(0.920)	(0.464)
Former British colony	1.101**	3.008**	0.808	2.244	0.810	2.249
	(0.506)	(1.522)	(0.526)	(1.181)	(0.526)	(1.182)
No. democratic transition	-0.121	0.886	0.022	1.022	0.014	1.014
	(0.191)	(0.169)	(0.214)	(0.218)	(0.219)	(0.223)
Years of entry	-0.047***	0.955***	-0.044***	0.957***	-0.044***	0.957***
	(0.012)	(0.012)	(0.013)	(0.012)	(0.013)	(0.012)
Post-soviet states	-0.438	0.645	0.547	1.729	0.584	1.793
	(0.788)	(0.509)	(0.881)	(1.523)	(0.915)	(1.641)
No. of Subjects	108		108		108	
No. of Observations	1441		1441		1441	
LR chi^2	40.51		75.97		75.99	
Prob> chi^2	0.0000		0.0000		0.0000	
Log likelihood	-173.10972		-155.3776		-155.36666	

Note: standard error in parentheses in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S7. Mediation analysis with survival model, 1945–2010

	Model (1)		Model (2)		Model (3)		Model (4)		Model (5)	
	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR	Coef.	HR
Dominant party regimes	-1.404**	0.246**					-0.333	0.717	-0.665	0.514
	(0.631)	(0.155)					(0.795)	(0.570)	(0.718)	(0.369)
Vote share of ASP			-0.048***	0.953***			-0.046***	0.955***		
			(0.015)	(0.014)			(0.016)	(0.015)		
Seat share of ASP					-0.054***	0.947***			-0.051***	0.951***
					(0.018)	(0.017)			(0.018)	(0.017)
Log GDP pc			-0.782***	0.457***	-0.735***	0.480***	-0.763***	0.466***	-0.705***	0.494***
			(0.228)	(0.104)	(0.231)	(0.111)	(0.233)	(0.108)	(0.233)	(0.115)
Growth	-6.863**	0.001**	-5.101**	0.006**	-4.716*	0.009*	-5.166**	0.006**	-4.896*	0.007*
	(2.669)	(0.003)	(2.531)	(0.015)	(2.525)	(0.023)	(2.556)	(0.015)	(2.595)	(0.019)
Oil	0.134	1.144	0.498	1.645	0.585	1.795	0.474	1.607	0.513	1.671
	(0.484)	(0.553)	(0.515)	(0.848)	(0.525)	(0.943)	(0.517)	(0.831)	(0.527)	(0.881)
Parliamentarism	0.256	1.292	0.196	1.216	0.178	1.195	0.199	1.220	0.208	1.231
	(0.418)	(0.540)	(0.445)	(0.542)	(0.451)	(0.540)	(0.444)	(0.542)	(0.451)	(0.555)
Semi-presidentialism	1.284***	3.612***	1.130**	3.094**	1.137**	3.117**	1.148**	3.151**	1.173**	3.231**
	(0.489)	(1.765)	(0.496)	(1.535)	(0.499)	(1.555)	(0.498)	(1.569)	(0.498)	(1.610)
Ethnic fractionalization	0.684	1.982	0.025	1.025	-0.141	0.868	0.031	1.032	-0.096	0.909
	(0.728)	(1.442)	(0.703)	(0.721)	(0.718)	(0.624)	(0.699)	(0.721)	(0.712)	(0.647)
Religious fractionalization	-0.142	0.868	-0.071	0.931	0.115	1.122	-0.084	0.919	0.032	1.033
	(0.955)	(0.829)	(0.915)	(0.852)	(0.933)	(1.047)	(0.913)	(0.840)	(0.932)	(0.962)
Former British colony	1.101**	3.008**	0.601	1.825	0.635	1.886	0.619	1.857	0.654	1.923
	(0.506)	(1.522)	(0.510)	(0.931)	(0.512)	(0.965)	(0.511)	(0.949)	(0.511)	(0.982)
No. democratic transition	-0.121	0.886	-0.151	0.860	-0.200	0.819	-0.162	0.850	-0.238	0.788
	(0.191)	(0.169)	(0.223)	(0.192)	(0.224)	(0.184)	(0.223)	(0.190)	(0.227)	(0.179)
Years of entry	-0.047***	0.955***	-0.058***	0.944***	-0.052***	0.950***	-0.057***	0.944***	-0.052***	0.949***
	(0.012)	(0.012)	(0.012)	(0.011)	(0.013)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Post-soviet states	-0.438	0.645	-0.427	0.653	-0.456	0.634	-0.203	0.816	-0.025	0.976
	(0.788)	(0.509)	(0.811)	(0.530)	(0.820)	(0.520)	(0.972)	(0.793)	(0.944)	(0.922)
No. of Subjects	108		108		107		108		107	
No. of Observations	1441		1425		1409		1425		1409	
LR chi^2	40.51		64.18		60.94		64.36		61.87	
Prob> chi^2	0.0000		0.0000		0.0000		0.0000		0.0000	
Log likelihood	-173.10972		-160.44593		-153.86477		-160.35555		-153.39869	

Note: standard error in parentheses in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Supplementary Figure

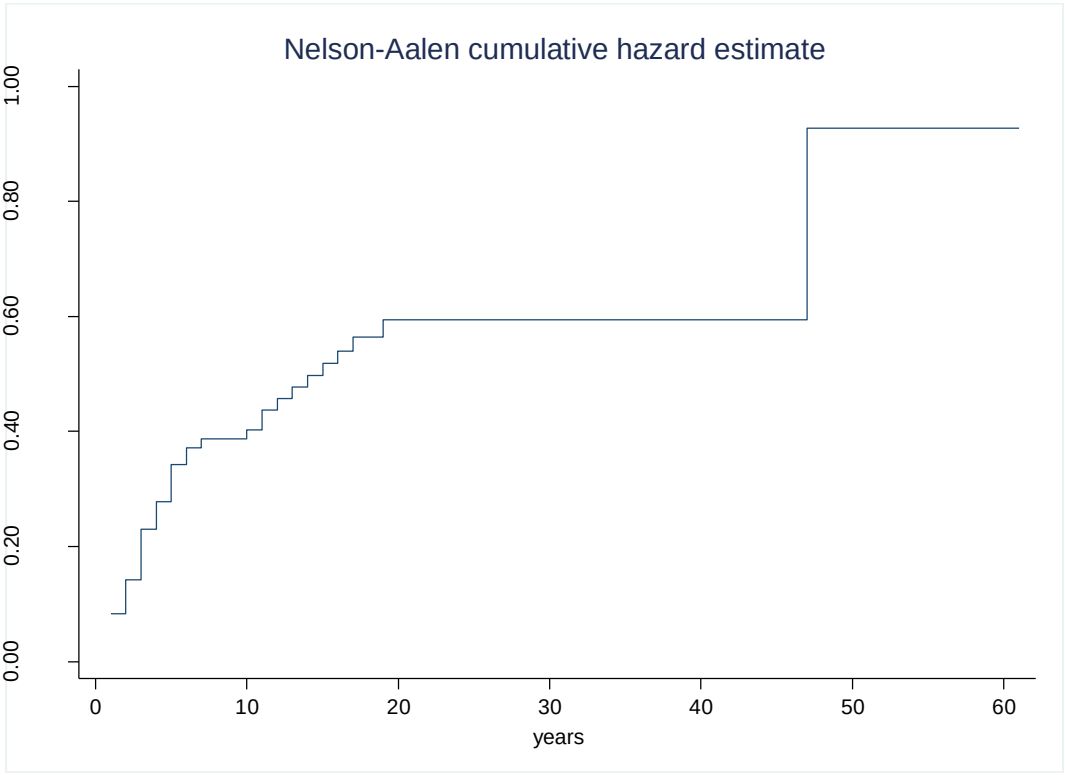


Figure S1. The Nelson–Aalen estimate of the cumulative hazard function of democratic regimes, 1945–2010
Note: Cumulative hazard function: t=1 (0.083), t=5 (0.343), t=10 (0.403), t=15 (0.518), t=19 (0.594), t=30 (0.594), t=40 (0.594), t=47 (0.927), t=60 (0.927). *Source*: the author.

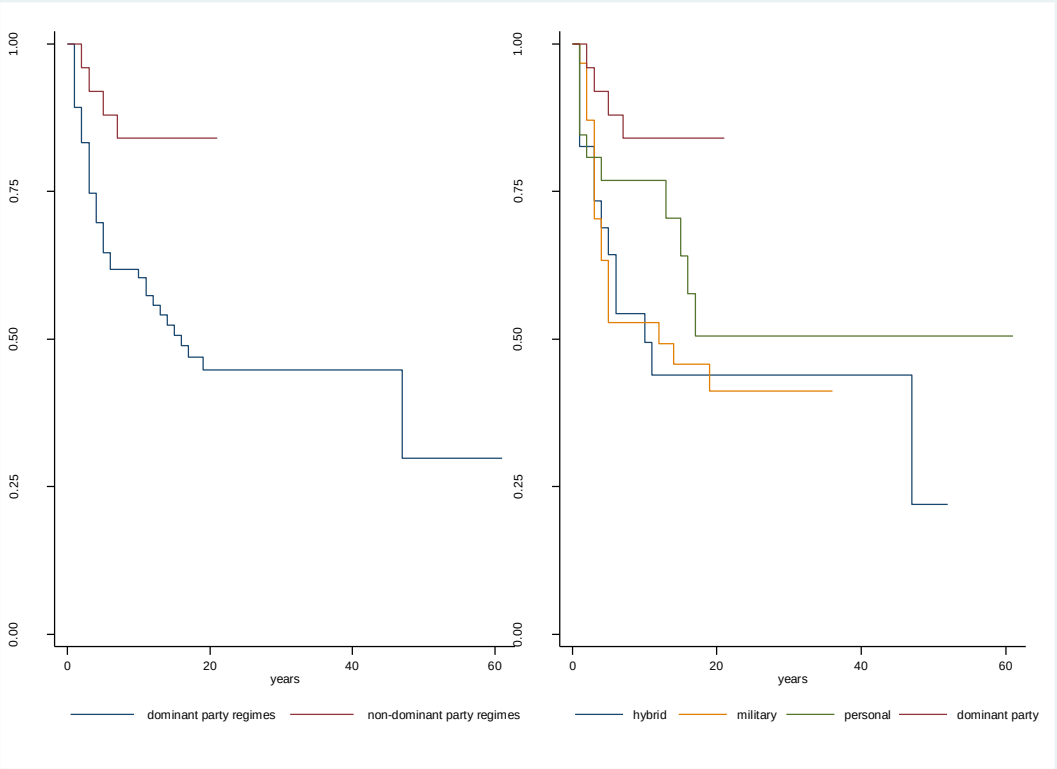
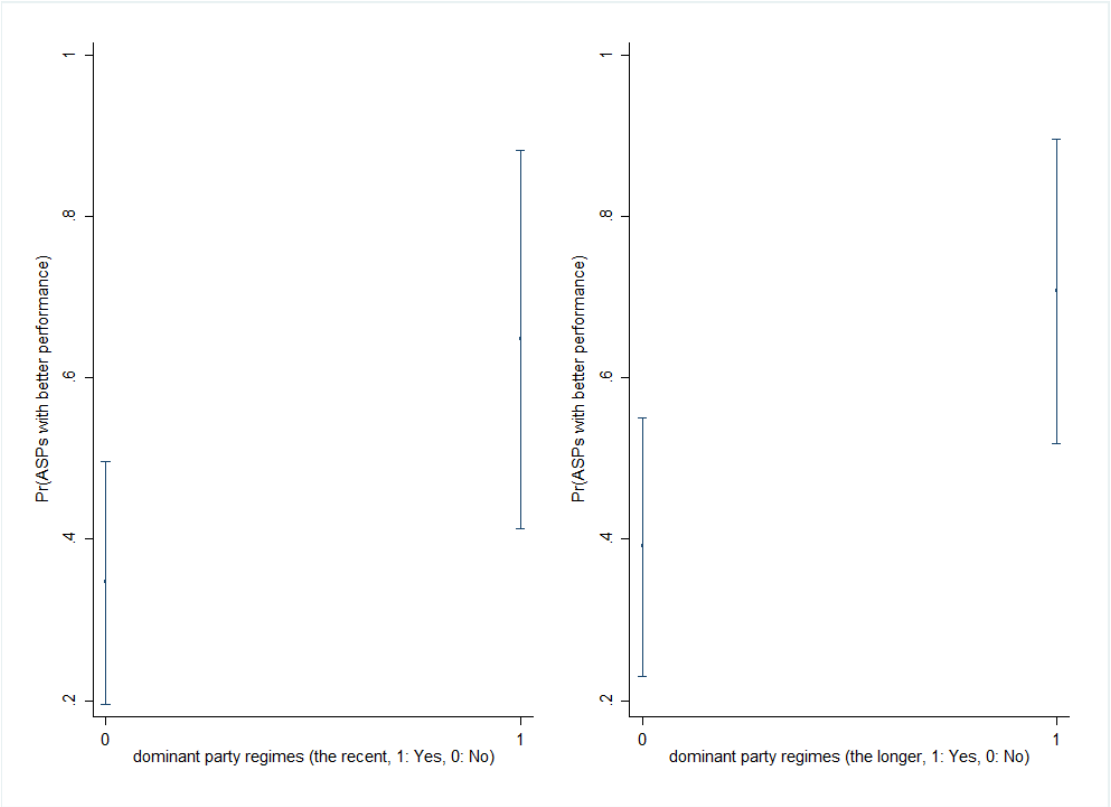
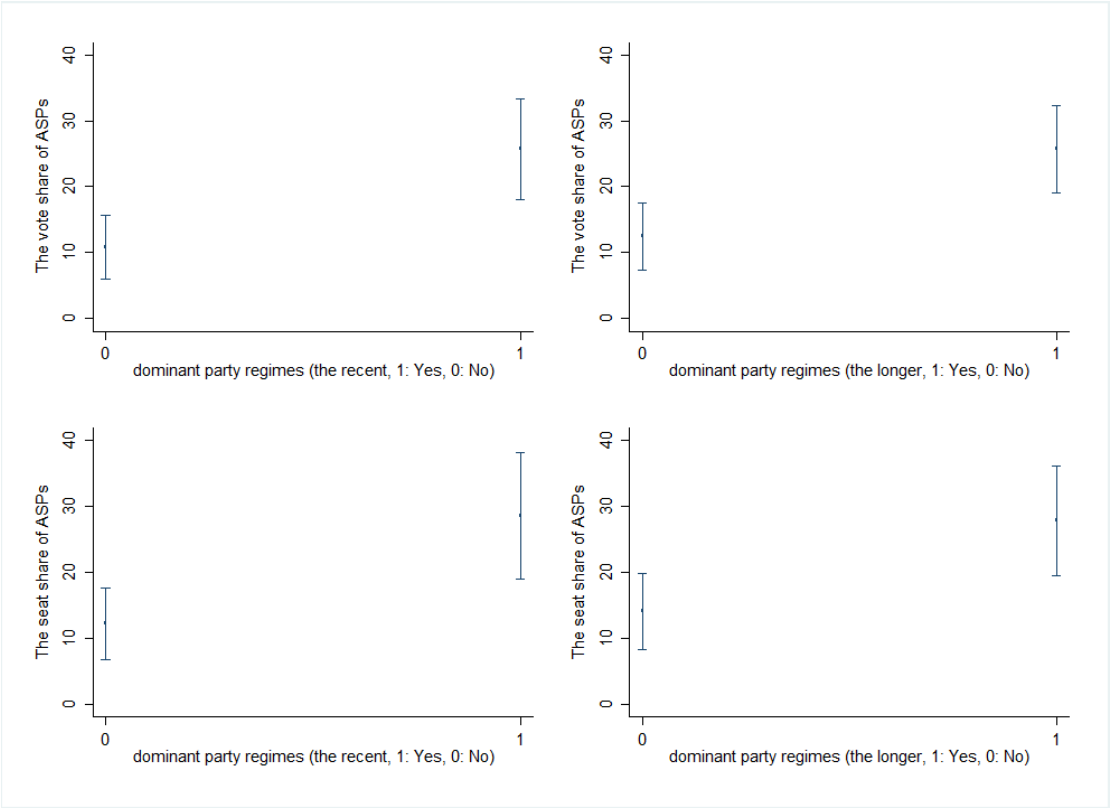


Figure S2. Survival analysis of democratic regimes, 1945–2010
Note: Incident rate: left panel: DPR (0.011), NDPR (0.039), and right panel: DPR (0.011), PR (0.027), MR (0.043), HR (0.048); mean survival time: left panel: DPR (15.04), NDPR (12.70), and right panel: DPR (15.04), PR (14.23), MR (12.74), HR (11.70); survival rate at year=10: left panel: DPR (0.840), NDPR (0.604), and right panel: DPR (0.840), PR (0.769), MR (0.528), HR (0.494); survival rate at year=20: left panel: DPR (0.840), NDPR (0.447), and right panel: DPR (0.840), PR (0.505), MR (0.412), HR (0.439); Log-rank test: left panel ($chi^2(1) = 8.68$, $Pr>chi^2 = 0.0032$), and right panel ($chi^2(3) = 10.53$, $Pr>chi^2 = 0.0145$). Log-rank test between DPR and PR: $chi^2(1) = 4.08$, $Pr>chi^2 = 0.0435$; Log-rank test between DPR and HR: $chi^2(1) = 7.81$, $Pr>chi^2 = 0.0052$; Log-rank test between DPR and MR: $chi^2(1) = 9.14$, $Pr>chi^2 = 0.0025$; Log-rank test between PR and HR: $chi^2(1) = 1.40$, $Pr>chi^2 = 0.2368$. Log-rank test between PR and MR: $chi^2(1) = 0.88$, $Pr>chi^2 = 0.3487$. Log-rank test between HR and MR: $chi^2(1) = 0.00$, $Pr>chi^2 = 0.9855$. *Source*: the author.



Figures S3. Dominant party regimes increase the likelihood of better performance of ASPs, 1945–2010

Note: the predicted probabilities (left, right): dominant party regimes (0.647^{***}, 0.707^{***}) and non-dominant party regimes (0.346^{***}, 0.390^{***}); * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. All results were based on a binary logistic model with time-invariant and -variant covariates. *Source*: the author.



Figures S4. Dominant party regimes increase the vote and seat share of ASPs, 1945–2010

Note: the liner prediction (upper-left, upper-right, lower-left, lower-right): dominant party regimes (25.687^{***}, 25.708^{***}, 28.504^{***}, 27.692^{***}) and non-dominant party regimes (10.786^{***}, 12.415^{***}, 12.130^{***}, 14.046^{***}); * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. All results were based on a linear regression model with time-invariant and -variant covariates. *Source*: the author.

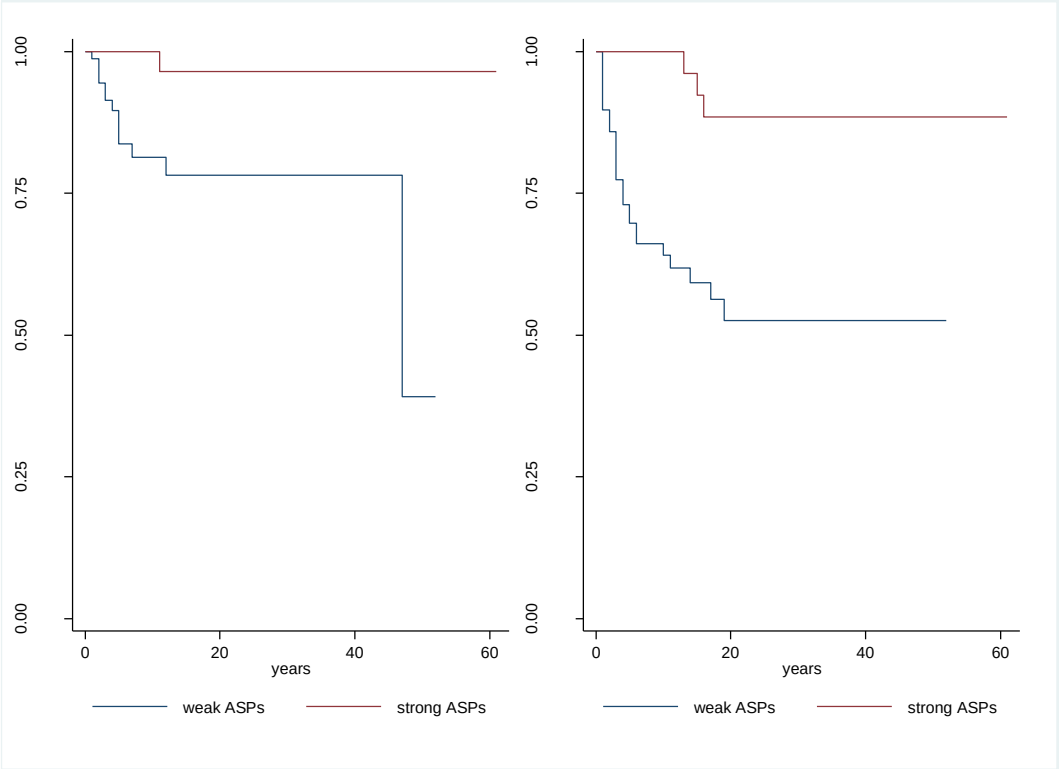
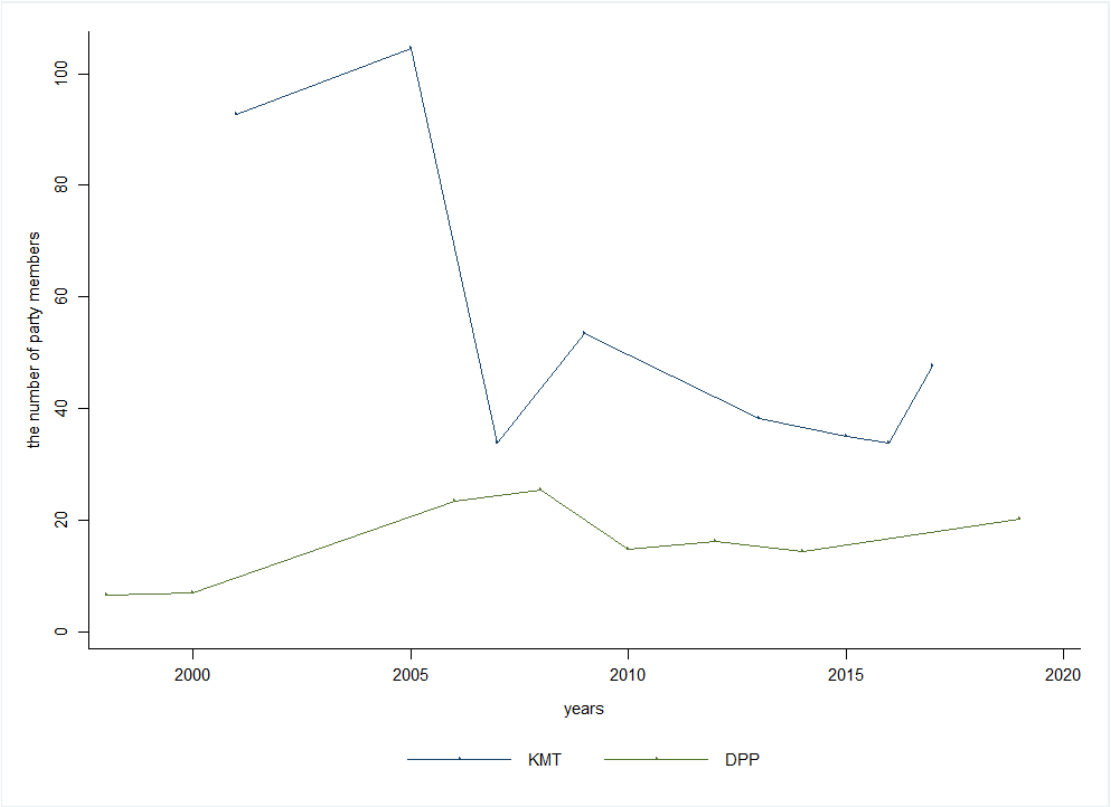


Figure S5. Cause specific survival analysis of democratic regimes, 1945–2010

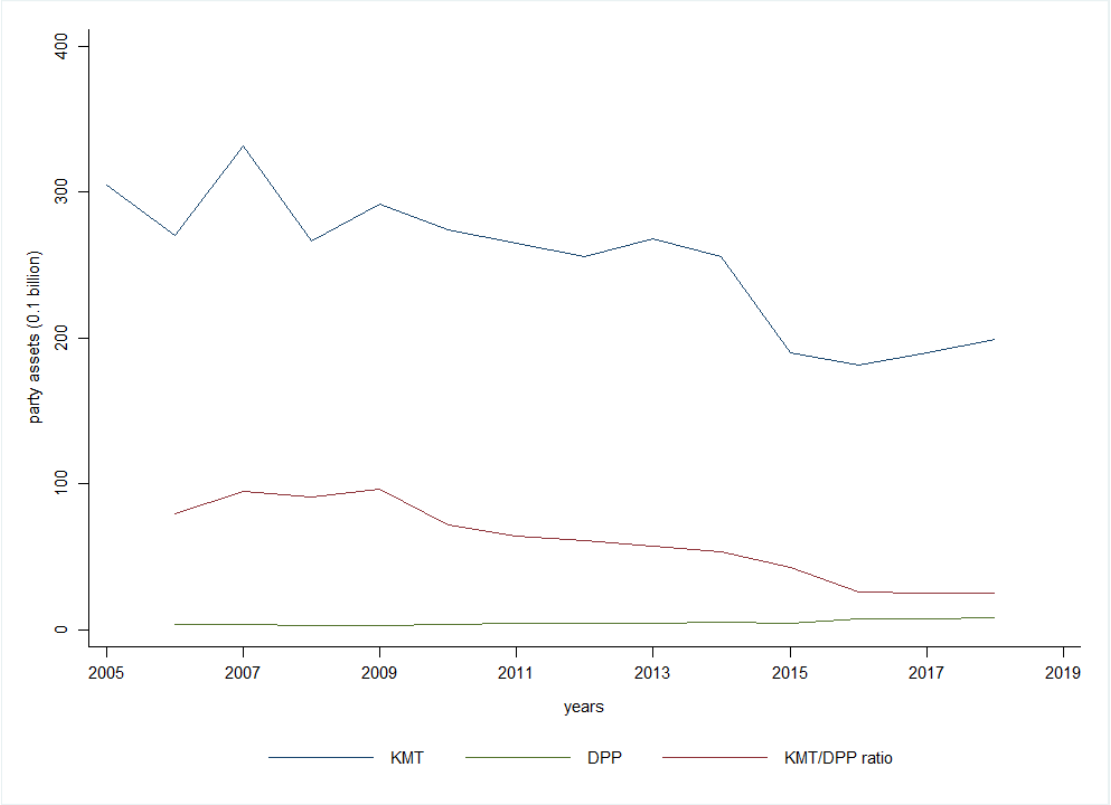
Note:

1. Existing research argues two modes of democratic breakdown. One group contains those cases where a democratic government is terminated by forces outside of the government while the other involves those cases where democratically elected leaders ended the democratic process themselves (Maeda 2010). This study also distinguished the two distinct modes by which democracies reverse into nondemocracies. One was coups or organised armed conflict. A military coup was defined as ouster by the military of the regime in power. An organised armed conflict referred to insurgency, revolution, or civil war leading up to the ouster. The other was autocratisation that marked when an executive changes democratic rules such that competition in subsequent elections was limited.
2. Left panel: democratic failure due to autocratisation; right panel: democratic collapse because of military coup and armed conflict. Log-rank test: left panel ($chi^2(1) = 5.71$, $Pr>chi^2 = 0.0168$), and right panel ($chi^2(3) = 11.93$, $Pr>chi^2 = 0.0006$). Cause specific hazard model: left panel: -2.027^{*} (HR: 0.132), right panel: -1.361^{**} (HR: 0.256), and a list of time-invariant and -variant covariates was included.

Source: the author used data from the codebook of GWF dataset, which provides the narratives of the start and end events for each regime (1945–2010). Of 109 democratic regimes, 32 were ousted as a direct result of military coup and armed conflict, whereas 14 experienced autocratisation. 63 still remained in power by the end of 2010.

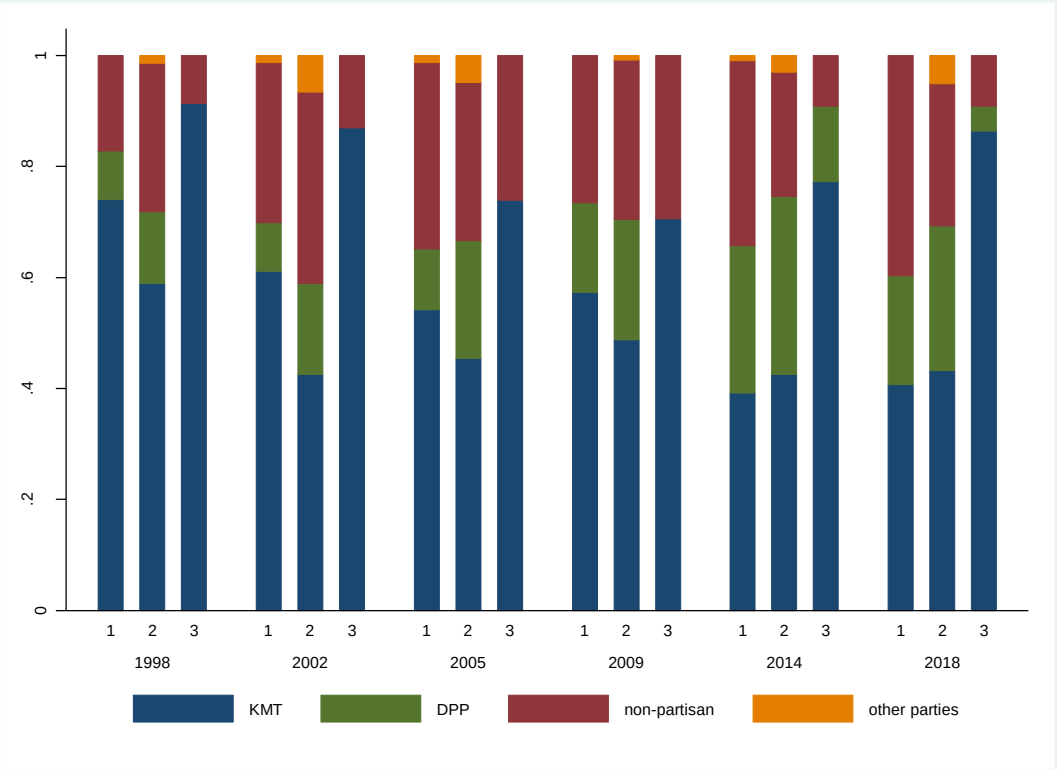


Figures S6. The number of KMT and DPP members, 1998–2019
Source: the report of KMT chairmanship elections in 2001, 2005, 2007, 2009, 2013, 2015, 2016, 2017; the report of DPP chairmanship elections in 1998, 2000, 2006, 2008, 2010, 2012, 2014, 2019.



Figures S7. The annual financial report of KMT and DPP assets and the ratio, 2005–2018

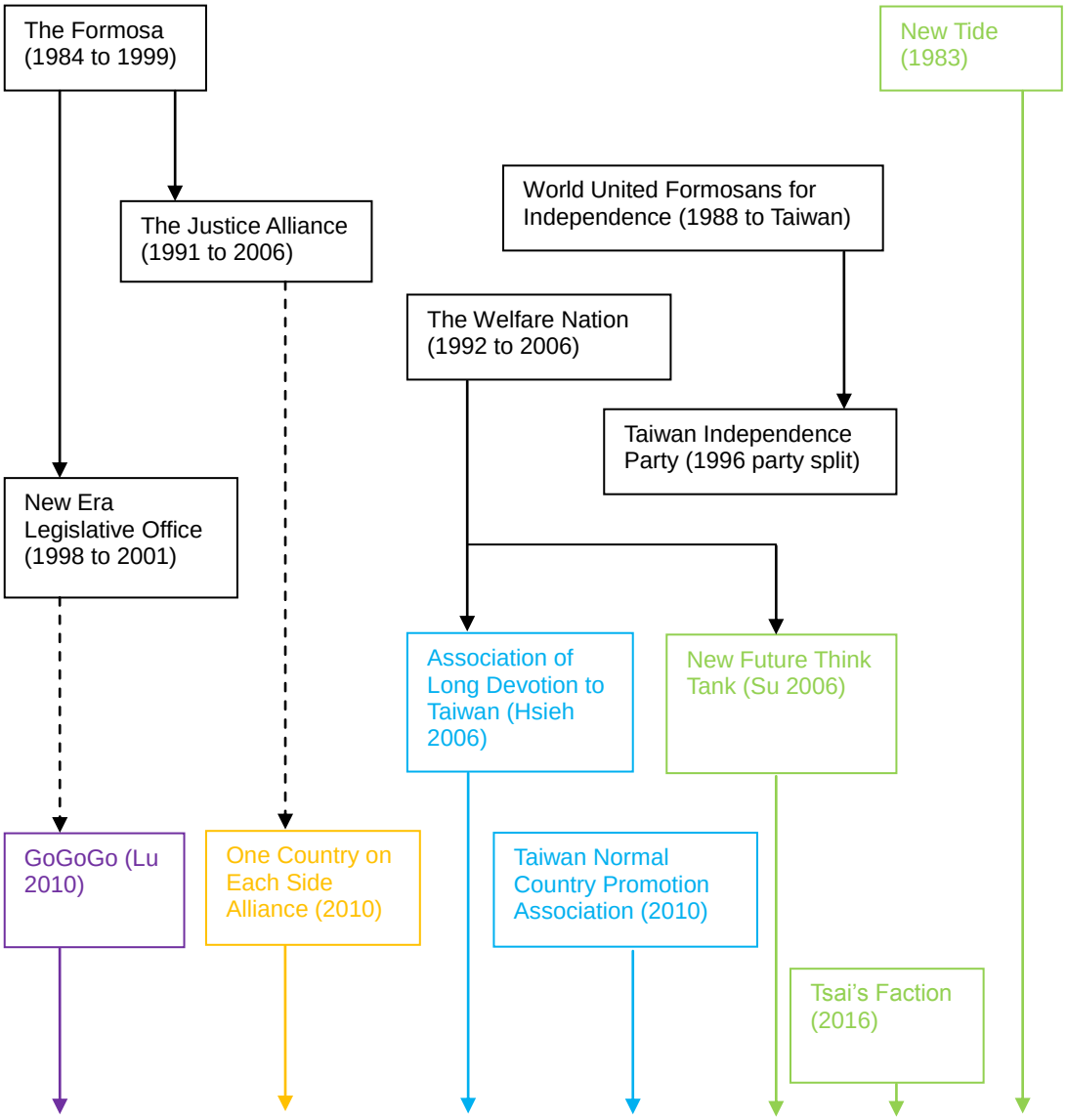
Source: the annual financial report of political parties and groups, Department of Civil Service, Ministry of the Interior, R.O.C. (Taiwan).



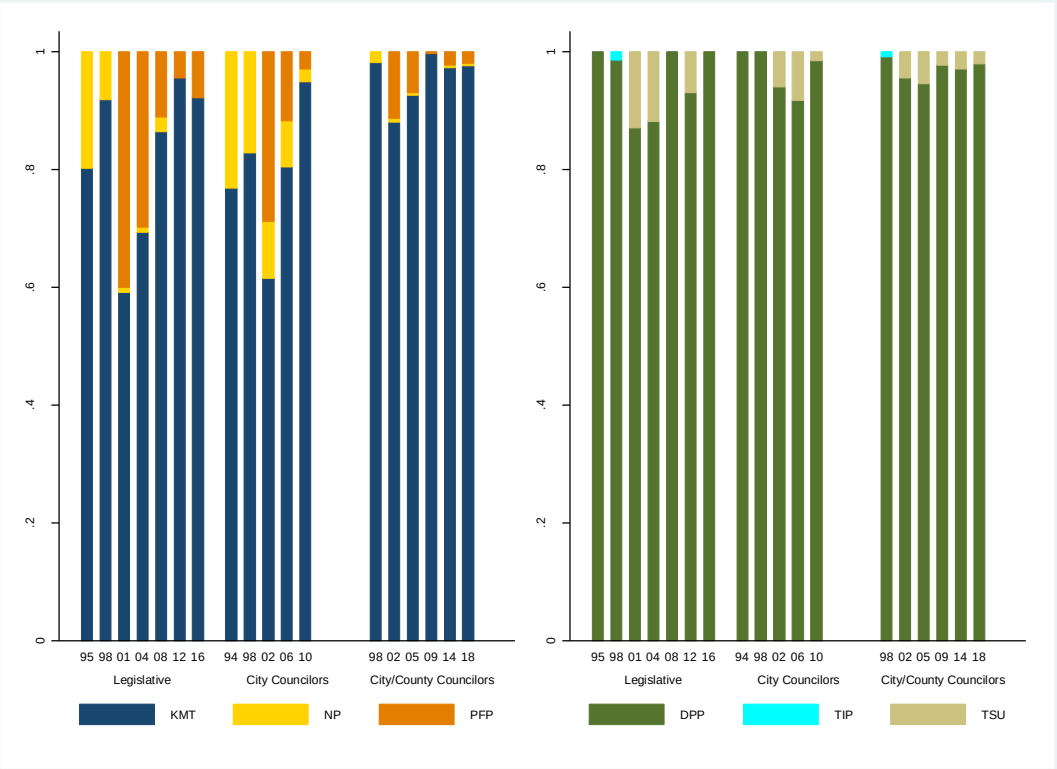
Figures S8. The party's share of town mayors, city or county councillors, or speakers, 1998–2018

Note: 1: town mayors, 2: city or county councillors, 3: city or county council speakers

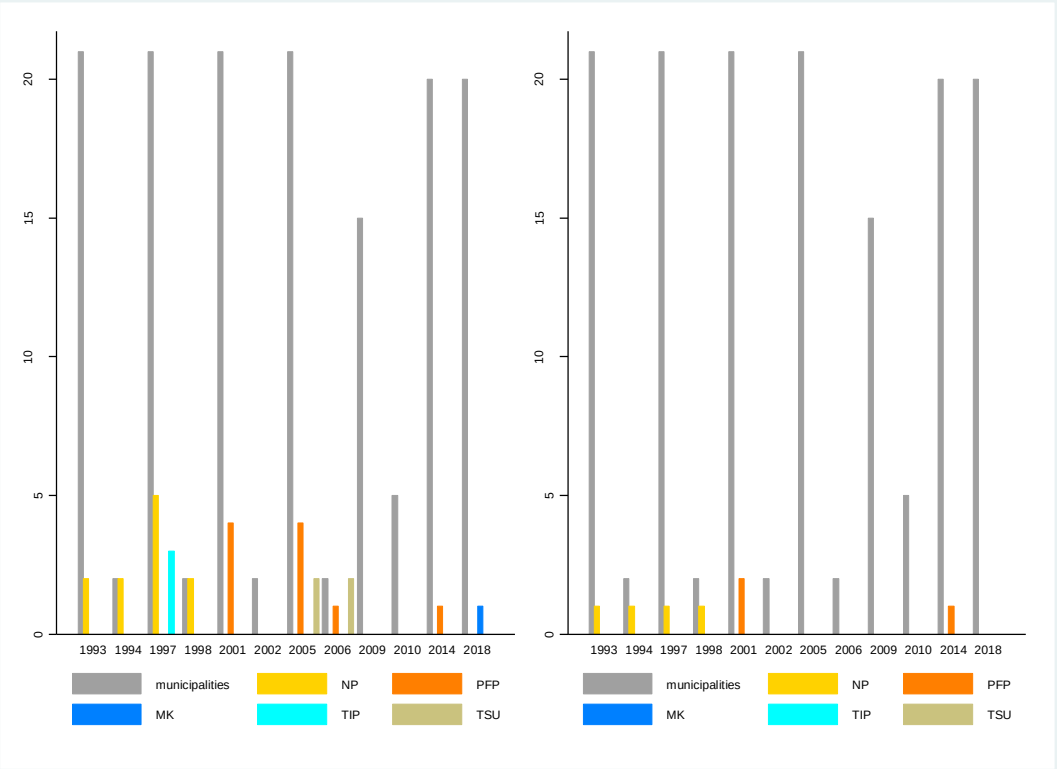
Source: Central Election Commission database.



Figures S9. The Evolution of Major Factions in DPP after 1988
Note: factions shaded by the same colour cooperate with each other. *Source*: the author.



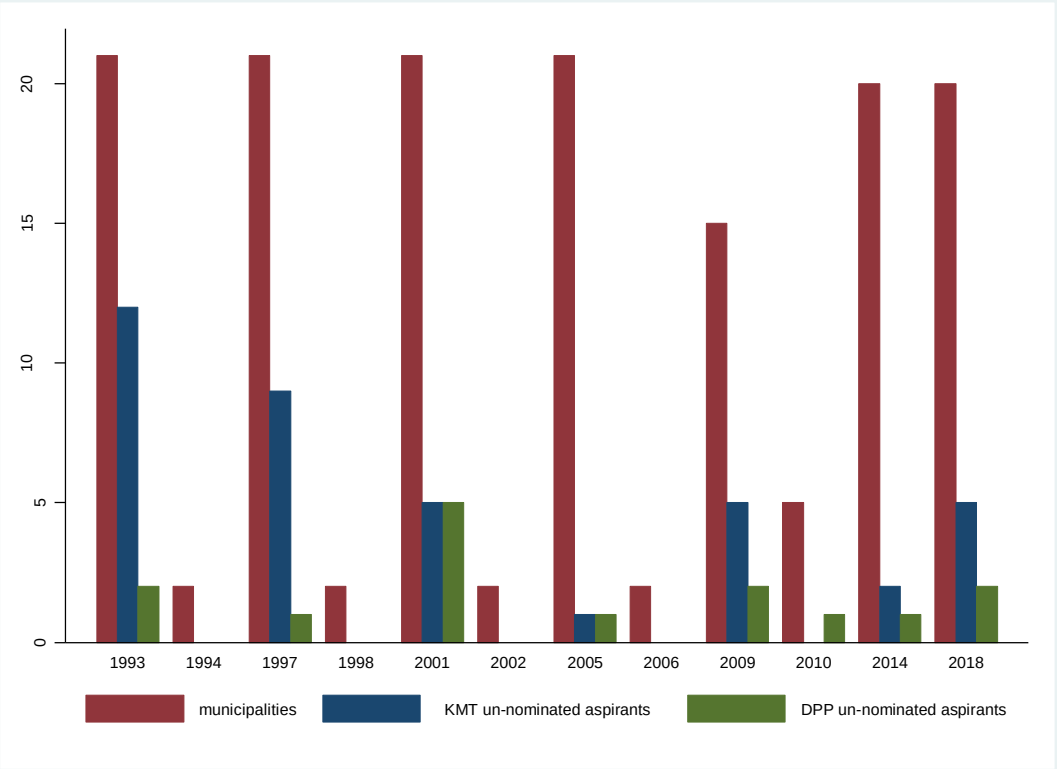
Figures S10. The performance of NP, PFP, and TIP in pan-blue or pan-green coalition at the legislative, city and county councilor elections, 1998–2018
Note: pan-blue coalition: KMT, NP, and PFP; pan-green coalition: DPP, TIP, and TSU. Taiwan Solidarity Union (TSU) was officially founded by supporters of former President and KMT chairman Lee Teng-hui in 2001. Due to its supportive of Taiwanese independence, it was considered part of the pan-green coalition.
Source: Central Election Commission database.



Figures S11. The effect of NP, PFP, and TIP on KMT or DPP at the municipal elections, 1993–2018

Note: MK: Minkuotang. Left panel: the number of nominated candidates for each party; Right panel: the number of candidates losing but leading KMT or DPP to lose elections (spoilers) and candidates winning the elections (winners)

Source: see Appendix D.



Figures S12. The number of KMT and DPP un-nominated aspirants at the municipal elections, 1993–2018
Source: see Appendix C.

APPENDIX

Appendix A 109 Democracies

Regime	Start	End	Regime failure
Albania	1992	2010	0
Argentina I	1947	1951	1
Argentina II	1974	1976	1
Argentina III	1984	2010	0
Armenia	1992	1994	1
Azerbaijan	1993	1993	1
Bangladesh I	1991	2007	1
Bangladesh II	2009	2010	0
Benin	1992	2010	0
Bolivia	1983	2010	0
Brazil	1986	2010	0
Bulgaria	1991	2010	0
Burundi I	1994	1996	1
Burundi II	2006	2010	0
C.A. Republic	1994	2003	1
Chile	1990	2010	0
Colombia	1959	2010	0
Congo-Brazzaville	1993	1997	1
Costa Rica	1950	2010	0
Croatia	1992	2010	0
Czech Republic	1993	2010	0
Dominican Republic I	1963	1963	1
Dominican Republic II	1979	2010	0
Ecuador I	1949	1963	1
Ecuador II	1969	1970	1
Ecuador III	1980	2010	0
El Salvador	1995	2010	0
Estonia	1992	2010	0
Georgia	2005	2010	0
Ghana I	1970	1972	1
Ghana II	1980	1981	1
Ghana III	2001	2010	0
Greece	1975	2010	0
Guatemala	1996	2010	0
Guinea Bissau I	2001	2002	1
Guinea Bissau II	2006	2010	0
Haiti I	1947	1950	1
Haiti II	1991	1991	1
Haiti III	1995	1999	1
Haiti IV	2007	2010	0
Honduras I	1958	1963	1
Honduras II	1972	1972	1
Honduras III	1982	2010	0
Hungary	1991	2010	0
Indonesia	2000	2010	0
Kenya	2003	2010	0
Korea South I	1961	1961	1
Korea South II	1988	2010	0
Latvia	1992	2010	0
Lesotho	1994	2010	0
Liberia	2006	2010	0
Lithuania	1992	2010	0
Macedonia	1992	2010	0
Madagascar	1994	2009	1

Malawi	1995	2010	0
Mali	1993	2010	0
Mauritania	2008	2008	1
Mexico	2001	2010	0
Moldova	1992	2010	0
Mongolia	1994	2010	0
Myanmar	1961	1962	1
Nepal I	1992	2002	1
Nepal II	2007	2010	0
Nicaragua	1991	2010	0
Niger I	1994	1996	1
Niger II	2000	2010	0
Nigeria I	1980	1983	1
Nigeria II	2000	2010	0
Pakistan I	1972	1975	1
Pakistan II	1989	1999	1
Pakistan III	2009	2010	0
Panama I	1953	1953	1
Panama II	1956	1968	1
Panama III	1990	2010	0
Paraguay	1994	2010	0
Peru I	1957	1962	1
Peru II	1964	1968	1
Peru III	1981	1992	1
Peru IV	2002	2010	0
Philippines	1987	2010	0
Poland	1990	2010	0
Portugal	1977	2010	0
Romania	1991	2010	0
Russia	1992	1993	1
Senegal	2001	2010	0
Serbia	2001	2010	0
Sierra Leone I	1997	1997	1
Sierra Leone II	1999	2010	0
Slovakia	1993	2010	0
Slovenia	1992	2010	0
South Africa	1995	2010	0
Spain	1978	2010	0
Sri Lanka	1995	2010	0
Sudan I	1966	1969	1
Sudan II	1987	1989	1
Syria I	1948	1949	1
Syria II	1955	1957	1
Taiwan	2001	2010	0
Thailand I	1976	1976	1
Thailand II	1989	1991	1
Thailand III	1993	2006	1
Thailand IV	2008	2010	0
Turkey I	1951	1957	1
Turkey II	1962	1980	1
Turkey III	1984	2010	0
Ukraine	1992	2010	0
Uruguay	1985	2010	0
Venezuela	1959	2005	1
Zambia	1992	1996	1

Note: 1= regime fails and 0 = censored**.**

Appendix B The List of ASPs with Better Performance

Regime	Periods	ASPs	Performance
Albania	1992-2010	Socialist Party of Albania (PS)	The largest party in the parliament (1997-2005) Prime minister (1997-2005)
Bangladesh	1991-2007	Bangladesh Awami League (AL)☆	The largest party in the parliament (1996-2001) Prime minister (1996-2001)
Bangladesh	1991-2007	Bangladesh Nationalist Party (BNP)☆	The largest party in the parliament (1991-1996, 2001-2006) Prime minister (1991-1996, 2001-2006)
Bangladesh	2009-2010	Bangladesh Awami League (AL)☆	The largest party in the parliament (2009-) Prime minister (2009-)
Bolivia	1983-2010	Revolutionary Nationalist Movement (MNR)☆	The largest party in the parliament (1985-1997, 2002-2005) Won 1985, 1993 and 2002 presidential elections
Bolivia	1983-2010	Nationalist Democratic Action (ADN)☆◎	The largest party in the parliament (1997-2002) Won 1997 presidential election
Brazil	1986-2010	Liberal Front Party (PFL)/ Democrats (DEM)	The largest party in the parliament (1998-2002) Won 1985 presidential election (Vice-President José Sarney succeeded to the Presidency due to the death of President-elect Tancredo Neves)
Bulgaria*	1991-2010	Bulgarian Socialist Party (BSP)	The largest party in the parliament (1991-1997, 2005-2009) Prime minister (1994-1997, 2005-2009) Won 2001 and 2006 presidential elections
Chile	1990-2010	Independent Democratic Union (UDI)	The largest party in the parliament (2001-)[1] Won 2009 presidential election
Chile	1990-2010	National Renewal (RN)	Won 2009 presidential election
Colombia	1959-2010	Colombian Conservative Party (PCC)☆	From 1958-1974, 50% of the seats in both houses allocated to Conservative Party and Liberal Party, and the two main political parties agreed to rotate power, intercalating for a period of four presidential terms Won 1982 and 1998 presidential elections
Costa Rica	1950-2010	National Liberation Party (PLN)◎	The largest party in the parliament (1953-1978, 1982-1990, 1994-1998, 2006-) Won 1953, 1962, 1970, 1974, 1982, 1986, 1994, 2006 and 2010 presidential elections
Croatia*	1992-2010	Social Democratic Party of Croatia (SDP)	The largest party in the parliament (2000-2003) Prime minister (2000-2003) Won 2009/2010 presidential election[2]
Dominican Rep. II	1979-2010	Social Christian Reformist Party (PRSC)	The largest party in the parliament (1986-1990)

			Won 1986, 1990 and 1994 presidential elections
Ecuador I	1949-1963	Ecuadorian Conservative Party (PCE)	The largest party in the parliament (1949-1954) Won 1956 presidential election[3]
El Salvador	1995-2010	Nationalist Republican Alliance (ARENA)☆©	The largest party in the parliament (1995-2000, 2006-2009) Won 1999 and 2004 presidential elections
Ghana II	1980-1981	People's National Party (PNP)☆©	The largest party in the parliament (1979-1981) Won 1979 presidential election
Ghana III	2001-2010	National Democratic Congress (NDC)	The largest party in the parliament (2008-) Won 2008 presidential election
Guatemala	1996-2010	Guatemalan Republican Front (FRG)☆©	The largest party in the parliament (1999-2003) Won 1999 presidential election
Guinea Bissau II*	2006-2010	African Party for the Independence of Guinea and Cape Verde (PAIGC)☆	The largest party in the parliament (2006-) Prime minister (2006-) Won 2009 presidential election
Honduras II	1972-1972	National Party of Honduras (PNH)☆	The largest party in the parliament (1971-1972) Won 1971 presidential election
Honduras III	1982-2010	National Party of Honduras (PNH)☆	The largest party in the parliament (1989-1993, 2001-2005, 2009-) Won 1971 presidential election
Hungary*	1991-2010	Hungarian Socialist Party (MSZP)	The largest party in the parliament (1994-1998, 2006-2010) Prime minister (1994-1998, 2004-2009)
Indonesia	2000-2010	Golkar	The largest party in the parliament (2004-2009)
Korea South II	1988-2010	Democratic Justice Party (DJP)/ Democratic Liberal Party (DLP)/ New Korea Party (NKP)/ Grand National Party (GNP) /Saenuri	The largest party in the parliament (1988-2004, 2008-) Won 1992 and 2007 presidential elections
Lithuania*	1992-2010	Democratic Labor Party of Lithuania (LDDP)/ Social Democratic Party of Lithuania (LSDB)	The largest party in the parliament (1992-1996) Prime minister (1993-1996, 2001-2008) Won 1993 presidential election
Macedonia*	1992-2010	Social Democratic Union of Macedonia (SDSM)	The largest party in the parliament (1992-1998, 2002-2006) Prime minister (1992-1998, 2002-2006) Won 1994 and 2004 presidential elections
Madagascar*	1994-2009	Association for the Rebirth of Madagascar (AREMA)	The largest party in the parliament (1998-2002) Prime minister (1997-2002) Won 1996 presidential election
Malawi	1995-2010	Malawi Congress Party (MCP)	The largest party in the parliament (2004-2009)
Mexico	2001-2010	Institutional Revolutionary Party (PRI)	The largest party in the parliament (2003-2006, 2009-)

Moldova[4]*	1992-2010	Party of Communists of the Republic of Moldova (PCRM)	The largest party in the parliament (1998-) Prime minister (2001-2009)
Mongolia*	1994-2010	Mongolia People's Revolutionary Party (MPRP) / Mongolian People's Party (MPP)	The largest party in the parliament (1994-1996, 2000-) Prime minister (1992-1996, 2000-2004, 2006-) Won 1997, 2001 and 2005 presidential elections
Nepal I	1992-2002	Rastriya Prajatantra Party (RPP)	Prime minister (1997-1998)
Nicaragua	1991-2010	Sandinista National Liberation Front (FSLN)	The largest party in the parliament (1991-1996, 2006-)[5] Won 2006 presidential election
Niger II*	2000-2010	National Movement for the Development of Society (MNSD)☆	The largest party in the parliament (1999-) Prime minister (2000-) Won 1999 and 2004 presidential elections
Panama II	1956-1968	National Patriotic Coalition (CPN)	The largest party in the parliament (1956-1960) Won 1956 presidential election
Panama II	1956-1968	Panameñista Party (PP)☆	The largest party in the parliament (1968) Won 1968 presidential election
Panama III	1990-2010	Democratic Revolutionary Party (PRD)☆	The largest party in the parliament (1994-)[6] Won 1994 and 2004 presidential elections
Panama III	1990-2010	Panameñista Party (PP)☆	Won 1989 and 1999 presidential elections
Paraguay	1994-2010	Colorados	The largest party in the parliament (1994-) Won 1998 and 2003 presidential elections
Poland*	1990-2010	Social Democracy of the Republic of Poland (SdRP)/Democratic Left Alliance (SLD)	The largest party in the parliament (1993-1997, 2001-2005) Prime minister (1995-1997, 2001-2005) Won 1995 and 2000 presidential elections[7]
Romania*	1991-2010	National Salvation Front (FSN)/Democratic National Salvation Front (FDSN)/ Romanian Social Democratic Party (PDSR)/Social Democratic Party (PSD)	The largest party in the parliament (1991-1996, 2000-2008) Prime minister (1991-1996, 2000-2004) Won 1992 and 2000 presidential elections
Serbia*	2001-2010	Socialist Party of Serbia (SPS)☆	Prime Minister (2001-2001)
Sierra Leone II	1999-2010	All People's Congress (APC)☆	The largest party in the parliament (2007-) Won 2007 presidential election
Slovenia*	1992-2010	United List of Social Democrats (ZLSD)/ Social Democrats (SD)	The largest party in the parliament (2008-) Prime minister (2008-)
Spain	1978-2010	Union of the Democratic Center (UCD)/ People's Alliance (AP)/ Peoples Party (PP)◎	The largest party in the parliament (1978-1982, 1996-2004) Prime minister (1978-1982, 1996-2004)
Sri Lanka*	1995-2010	United National Party (UNP)	The largest party in the parliament (2001-2004) Prime minister (2001-2004)
Taiwan*	2001-2010	Kuomintang (KMT)	The largest party in the parliament (2008-)

			Prime minister (2008-) Won 2008 presidential election
Thailand	1993-2006	New Aspiration Party (NAP)☆◎	The largest party in the parliament (1996-2001) Prime minister (1996-1997)
Turkey II	1962-1980	Republican People's Party (CHP)☆	The largest party in the parliament (1961-1965, 1973-1980) Prime minister (1961-1965, 1974, 1977, 1978-1979)
Turkey II	1962-1980	Justice Party (AP)☆◎	The largest party in the parliament (1965-1973) Prime minister (1965-1971, 1975-1977, 1977-1978, 1979-1980)
Turkey III*(2008-)	1984-2010	Motherland Party (ANAP)◎	The largest party in the parliament (1983-1991) Prime minister (1983-1991, 1996, 1997-1999)
Turkey III*(2008-)	1984-2010	True Path Party (DYP)☆◎	The largest party in the parliament (1991-1995) Prime minister (1991-1995)
Ukraine*	1992-2010	Communist Party of Ukraine (KPU)	The largest party in the parliament (1992-2002)

Note: For presidential country, this study saw if ASPs successfully won at least one presidential election or if they became the largest party in the parliament. For parliamentary country, this paper checked if ASPs became the largest party in the parliament or their members were appointed as the prime minister. For semi-presidential country labeled as *, the study scrutinised if three condition were satisfied. [1]: its alliance with National Renewal (RN) is not the largest parliamentary coalition in 2001 and 2005. [2]: Two-run systems. [3]: its alliance with Social Christian Party (PSC). [4]: Moldova changed its constitutional design from semi-presidentialism to parliamentarism from 2000. [5]: the largest parliamentary coalition is National Opposition Union (UNO) between 1991 and 1996. [6]: its alliances, United People Alliance (1994-1999), New Nation Alliance (1999-2004) and New Fatherland (2004-2009), were the largest parliamentary coalitions. After 2009, its alliance, One Country for All, was not the largest parliamentary coalition although PRD was the largest party. [7]: In 2000 presidential election, Aleksander Kwaśniewski ran as the independent but supported by SdRP. ☆: cases were not included because ASPs emerge not from the recent authoritarian regimes. ◎: ASPs were created in reaction to a transition to democracy, either by high-level authoritarian incumbents in anticipation of an imminent transition, or by former high-level incumbents shortly after a transition. Cases, shaded in gray, would be included if the rule to record antecedent authoritarian rule from the longer instead of the recent one was adopted.

Appendix C DPP and KMT Candidates and Un-nominated Aspirants

List of DPP Candidates and Un-nominated Aspirants

1. Presidential Elections

9th: no party rebels, DPP presidential and vice-presidential candidate: Peng Ming-min and Frank Hsieh

10th: party rebels, DPP presidential and vice-presidential candidate: Chen Shui-bian and Annette Lu, Others: *Hsu Hsin-liang* (chairperson of the DPP, Magistrate of Taoyuan) and Josephine Chu (Independent)

11th: no party rebels, DPP presidential and vice-presidential candidate: Chen Shui-bian and Annette Lu (Incumbent)

12th: no party rebels, DPP presidential and vice-presidential candidate: Frank Hsieh and Su Tseng-chang

13th: no party rebels, DPP presidential and vice-presidential candidate: Tsai Ing-wen and Su Jia-chyuan

14th: no party rebels, DPP presidential and vice-presidential candidate: Tsai Ing-wen and Chen Chien-jen (Independent)

2. Municipal Elections

a. Keelung City

12th: no party rebels, DPP mayor candidate: Wang Tuoh

13th: no party rebels, DPP mayor candidate: Lee Chin-yung

14th: no party rebels, DPP mayor candidate: Lee Chin-yung (Incumbent)

15th: no party rebels, DPP mayor candidate: Wang Tuoh

16th: no party rebels, DPP mayor candidate: Lin Yu-chang

17th: no party rebels, DPP mayor candidate: Lin Yu-chang

18th: no party rebels, DPP mayor candidate: Lin Yu-chang (Incumbent)

b. New Taipei City (former Taipei County until 25 December 2010)

12th: no party rebels, DPP mayor candidate: You Ching (Incumbent)

13th: no party rebels, DPP mayor candidate: Su Tseng-chang

14th: no party rebels, DPP mayor candidate: Su Tseng-chang (Incumbent)

15th: no party rebels, DPP mayor candidate: Luo Wen-jia

1st: no party rebels, DPP mayor candidate: Tsai Ing-wen

2nd: no party rebels, DPP mayor candidate: Yu Shyi-kun

3rd: no party rebels, DPP mayor candidate: Su Tseng-chang

c. Taipei City

1st: no party rebels, DPP mayor candidate: Chen Shui-bian

2nd: no party rebels, DPP mayor candidate: Chen Shui-bian (Incumbent)

3rd: no party rebels, DPP mayor candidate: Lee Ying-yuan

4th: no party rebels, DPP mayor candidate: Frank Hsieh

5th: no party rebels, DPP mayor candidate: Su Tseng-chang

6th: no party rebels, DPP mayor candidate: n.a. (DPP agreed not to put forward a candidate for the election, and to support Ko Wen-je as representative of the Pan-Green Coalition)

7th: no party rebels, DPP mayor candidate: Pasuya Yao

d. Yilan County

12th: no party rebels, DPP mayor candidate: Yu Shyi-kun (Incumbent)

13th: no party rebels, DPP mayor candidate: Liu Shou-cheng

14th: no party rebels, DPP mayor candidate: Liu Shou-cheng (Incumbent)

15th: no party rebels, DPP mayor candidate: Chen Ding-nan

16th: no party rebels, DPP mayor candidate: Lin Tsung-hsien

17th: no party rebels, DPP mayor candidate: Lin Tsung-hsien (Incumbent)

18th: no party rebels, DPP mayor candidate: Chen Ou-po

e. Taoyuan City (former Taoyuan County until 25 December 2010)

12th: party rebels, DPP mayor candidate: Chang Sheng Hsun, Others: *Huang Yu-chiao* (Incumbent Member of Taiwan Provincial Council)

13th: no party rebels, DPP mayor candidate: Annette Lu

14th: no party rebels, DPP mayor candidate: Perng Shaw-jiin

15th: no party rebels, DPP mayor candidate: Cheng Pao-ching

1st: no party rebels, DPP mayor candidate: Cheng Wen-tsan

2nd: no party rebels, DPP mayor candidate: Cheng Wen-tsan

3rd: no party rebels, DPP mayor candidate: Cheng Wen-tsan (Incumbent)

f. Hsinchu County

12th: no party rebels, DPP mayor candidate: Fan Chen-tsung (Incumbent)

13th: no party rebels, DPP mayor candidate: Lin Kuang-hua

14th: no party rebels, DPP mayor candidate: Lin Kuang-hua (Incumbent)

15th: no party rebels, DPP mayor candidate: Lin Kuang-hua

16th: party rebels, DPP mayor candidate: Perng Shaw-jiin, Others: *Tseng Chin-hsiang* (chairperson of the DPP local branch, Hsinchu County)

17th: no party rebels, DPP mayor candidate: n.a. (DPP agreed not to put forward a candidate for the election, and to support Cheng Yung-chin, former KMT Magistrate of Hsinchu County)

18th: no party rebels, DPP mayor candidate: Cheng Chao-fang

g. Hsinchu City

4th: no party rebels, DPP mayor candidate: Wu Chiu-ku

5th: no party rebels, DPP mayor candidate: Tsai Jen-chien

6th: no party rebels, DPP mayor candidate: Tsai Jen-chien (Incumbent)

7th: no party rebels, DPP mayor candidate: Cheng Kuei-yuan

8th: no party rebels, DPP mayor candidate: Liou Gin-show

9th: party rebels, DPP mayor candidate: Lin Chih-chien, Others: *Tsai Jen-chien* (Mayor of Hsinchu City)

10th: no party rebels, DPP mayor candidate: Lin Chih-chien (Incumbent)

h. Miaoli County

12th: no party rebels, DPP mayor candidate: Fu Wen-cheng

13th: no party rebels, DPP mayor candidate: Hsu Chin-jung

14th: no party rebels, DPP mayor candidate: Wei Tsao-ping

15th: no party rebels, DPP mayor candidate: Chiu Ping-kun

16th: no party rebels, DPP mayor candidate: Yiong Cong-ziin

17th: no party rebels, DPP mayor candidate: Wu Yi-chen

18th: no party rebels, DPP mayor candidate: n.a. (DPP agreed not to put forward a candidate for the election, and to support Hsu Ting-chen, Toufen town mayor. Chu Tai-ping, the executive committee of the DPP local branch, Miaoli County, announced to participate in the election)

i. Taichung County (merged with the original provincial Taichung City to form the special municipality on 25 December 2010)

12th: no party rebels, DPP mayor candidate: Yang Chia-yu

13th: no party rebels, DPP mayor candidate: Liao Yong-lai, Others: *Chen Chin-lung* (Incumbent Fengyuan City Mayor, Taichung County)

14th: no party rebels, DPP mayor candidate: Liao Yong-lai (Incumbent)

15th: no party rebels, DPP mayor candidate: Chiu Tai-san

j. Taichung City

12th: no party rebels, DPP mayor candidate: Edgar Lin

13th: no party rebels, DPP mayor candidate: Chang Wen-ying

14th: party rebels, DPP mayor candidate: Michael Tsai, Others: *Chang Wen-ying* (Incumbent Taichung City Mayor)

15th: no party rebels, DPP mayor candidate: Lin Chia-Lung

1st: no party rebels, DPP mayor candidate: Su Jia-chyuan

2nd: no party rebels, DPP mayor candidate: Lin Chia-Lung

3rd: no party rebels, DPP mayor candidate: Lin Chia-Lung (Incumbent)

k. Changhua County

12th: no party rebels, DPP mayor candidate: Chou Ching-yu (Incumbent)

13th: no party rebels, DPP mayor candidate: Wong Chin-chu

14th: no party rebels, DPP mayor candidate: Wong Chin-chu

15th: no party rebels, DPP mayor candidate: Wong Chin-chu (Incumbent)

16th: no party rebels, DPP mayor candidate: Wong Chin-chu

17th: no party rebels, DPP mayor candidate: Wei Ming-ku

18th: no party rebels, DPP mayor candidate: Wei Ming-ku (Incumbent)

l. Nantou County

12th: no party rebels, DPP mayor candidate: Hsu Jung-shu

13th: party rebels, DPP mayor candidate: Lin Tsung-nan, Others: *Peng Pai-hsien* (Incumbent Member of Parliament)

14th: no party rebels, DPP mayor candidate: Lin Tsung-nan

15th: party rebels, DPP mayor candidate: Tsai Huang-liang, Others: *Lin Tsung-nan* (Incumbent Magistrate of Nantou County)

16th: party rebels, DPP mayor candidate: Lee Wen-chung, Others: *Chang Chun-hung* (Member of Parliament)

17th: no party rebels, DPP mayor candidate: Lee Wen-chung

18th: no party rebels, DPP mayor candidate: Hung Guo-haw

m. Yunlin County

12th: no party rebels, DPP mayor candidate: Su Hung Yueh-chiao

13th: no party rebels, DPP mayor candidate: Liao Ta-lin

14th: no party rebels, DPP mayor candidate: Lin Shu-shan

15th: no party rebels, DPP mayor candidate: Su Chih-fen

16th: no party rebels, DPP mayor candidate: Su Chih-fen (Incumbent)

17th: no party rebels, DPP mayor candidate: Lee Chin-yung

18th: no party rebels, DPP mayor candidate: Lee Chin-yung (Incumbent)

n. Chiayi County

12th: no party rebels, DPP mayor candidate: He Chia-jung (DPP support. Huang Hui-huang, the doctor, announced to participate in the election)

13th: no party rebels, DPP mayor candidate: He Chia-jung

14th: party rebels, DPP mayor candidate: Chen Ming-wen, Others: *Li Ming-hsien*

15th: no party rebels, DPP mayor candidate: Chen Ming-wen (Incumbent)

16th: no party rebels, DPP mayor candidate: Chang Hua-kuan

17th: no party rebels, DPP mayor candidate: Chang Hua-kuan (Incumbent)

18th: party rebels, DPP mayor candidate: Weng Chang-liang, Others: *Wu Fang-ming* (Incumbent Vice-Magistrate of Chiayi County)

o. Chiayi City

4th: no party rebels, DPP mayor candidate: n.a. (DPP did not put forward a candidate for the election)

5th: no party rebels, DPP mayor candidate: Tsai Hung-chang

6th: no party rebels, DPP mayor candidate: Huang Cheng-nan

7th: no party rebels, DPP mayor candidate: Chen Li-chen

8th: no party rebels, DPP mayor candidate: Twu Shiing-jer

9th: no party rebels, DPP mayor candidate: Twu Shiing-jer

10th: no party rebels, DPP mayor candidate: Twu Shiing-jer (Incumbent)

p. Tainan County (merged with the original provincial Tainan City to form the special municipality on 25 December 2010)

12th: no party rebels, DPP mayor candidate: Chen Tang-shan

13th: no party rebels, DPP mayor candidate: Chen Tang-shan (Incumbent)

14th: party rebels, DPP mayor candidate: Su Huan-chih, Others: *Wei Yao-chien* (Member of Parliament)

15th: no party rebels, DPP mayor candidate: Su Huan-chih (Incumbent)

q. Tainan City

12th: party rebels, DPP mayor candidate: Tsai Chieh-hsiung, Others: *Kuo Pei-hung*

13th: no party rebels, DPP mayor candidate: Chang Tsan-hung

14th: party rebels, DPP mayor candidate: Hsu Tain-tsair, Others: *Chang Tsan-hung* (Incumbent Tainan City Mayor), *Lin I-huang* (Incumbent Member of Tainan City Council)

15th: no party rebels, DPP mayor candidate: Hsu Tain-tsair (Incumbent)

1st: no party rebels, DPP mayor candidate: Lai Ching-te

2nd: no party rebels, DPP mayor candidate: Lai Ching-te (Incumbent)

3rd: party rebels, DPP mayor candidate: Huang Wei-cher, Others: *Su Huan-chih* (Magistrate of Tainan County, Member of Parliament)

r. Kaohsiung County (merged with the original Kaohsiung City to form the special municipality on 25 December 2010)

12th: no party rebels, DPP mayor candidate: Yu Cheng-hsien

13th: no party rebels, DPP mayor candidate: Yu Cheng-hsien (Incumbent)

14th: no party rebels, DPP mayor candidate: Yang Chiu-hsing

15th: no party rebels, DPP mayor candidate: Yang Chiu-hsing (Incumbent)

s. Kaohsiung City

1st: no party rebels, DPP mayor candidate: Chang Chun-hsiung

2nd: no party rebels, DPP mayor candidate: Frank Hsieh

3rd: no party rebels, DPP mayor candidate: Frank Hsieh (Incumbent)

4th: no party rebels, DPP mayor candidate: Chen Chu

1st: party rebels, DPP mayor candidate: Chen Chu (Incumbent), Others: *Yang Chiu-hsing* (Magistrate of Kaohsiung County)

2nd: no party rebels, DPP mayor candidate: Chen Chu (Incumbent)

3rd: no party rebels, DPP mayor candidate: Chen Chi-mai

t. Pintung County

12th: no party rebels, DPP mayor candidate: Su Tseng-chang (Incumbent)

13th: no party rebels, DPP mayor candidate: Su Jia-chyuan

14th: no party rebels, DPP mayor candidate: Su Jia-chyuan (Incumbent)

15th: no party rebels, DPP mayor candidate: Tsao Chi-hung

16th: no party rebels, DPP mayor candidate: Tsao Chi-hung (Incumbent)

17th: no party rebels, DPP mayor candidate: Pan Men-an

18th: no party rebels, DPP mayor candidate: Pan Men-an (Incumbent)

u. Taitung County

12th: no party rebels, DPP mayor candidate: n.a. (DPP did not put forward a candidate for the election but to support Chen I-nan)

13th: no party rebels, DPP mayor candidate: Huang Chao-hui

14th: no party rebels, DPP mayor candidate: Lai Kun-cheng

15th: no party rebels, DPP mayor candidate: n.a. (DPP did not put forward a candidate for the election but to support Liu Chao-hao, incumbent Vice-Magistrate of Taitung County)

16th: no party rebels, DPP mayor candidate: Liu Chao-hao

17th: no party rebels, DPP mayor candidate: Liu Chao-hao

18th: no party rebels, DPP mayor candidate: Liu Chao-hao

v. Hualien County

12th: no party rebels, DPP mayor candidate: Chen Yung-hsing

13th: no party rebels, DPP mayor candidate: Yu Ying-lung

14th: no party rebels, DPP mayor candidate: Yu Ying-lung

15th: no party rebels, DPP mayor candidate: Lu Po-chi

16th: no party rebels, DPP mayor candidate: n.a. (DPP did not put forward a candidate for the election but to support Chang Chih-ming, incumbent Vice-Magistrate of Hualien County)

17th: no party rebels, DPP mayor candidate: n.a. (DPP did not put forward a candidate for the election)

18th: no party rebels, DPP mayor candidate: Liu Hsiao-mei

w. Penghu County

12th: no party rebels, DPP mayor candidate: Kao Chih-peng

13th: no party rebels, DPP mayor candidate: Hsu Pi-lung

14th: party rebels, DPP mayor candidate: Chen Kuang-fu, Others: *Hsu Li-yin* (Incumbent Mogong City Mayor, Penghu County)

15th: no party rebels, DPP mayor candidate: Chen Kuang-fu

16th: no party rebels, DPP mayor candidate: Tsai Chien-hsing

17th: no party rebels, DPP mayor candidate: Chen Kuang-fu

18th: no party rebels, DPP mayor candidate: Chen Kuang-fu (Incumbent)

Note: Aspirants without party approvals

1. *Hsu Hsin-liang* (許信良): lose the 10th presidential election (Independent, the percentage of votes: 0.63%), lose the 6th legislative election (Taipei City Constituency 2, Independent, the percentage of votes: 2.22%), return to DPP, lose the 13th DPP presidential primary election (the percentage of votes: 12.21%), lose the 14th DPP chairperson election (the percentage of votes: 2.49%)
2. *Huang Yu-chiao* (黃玉嬌): lose the 12th Taoyuan County election (Independent, the percentage of votes: 2.67%), lose the 4th legislative election (Independent, the percentage of votes: 0.28%), never return to DPP
3. *Tseng Chin-Hsiang* (曾錦祥): lose the 16th Hsinchu County election (Independent, the percentage of votes: 0.75%), never return to DPP
4. *Tsai Jen-chien* (蔡仁堅): lose the 9th Hsinchu City election (Independent, the percentage of votes: 20.28%)
5. *Chen Chin-lung* (陳欽隆): lose the 13th Taichung County election (Independent, the percentage of votes: 1.82%), lose the 4th legislative election (新國家連線, the percentage of votes: 0.30%)
6. *Chang Wen-ying* (張溫鷹): lose the 14th Taichung City election (Independent, the percentage of votes: 15.58%), Deputy minister of the interior in 2005, Advisor to the President Chen from 2006 to 2007, return to DPP in 2008, however, terminate her political career
7. *Peng Pai-hsien* (彭百顯): win the 13th Nantou County election (Independent, the percentage of votes: 31.61%), lose the 14th Nantou County election (Independent, the percentage of votes: 15.71%), never return to DPP
8. *Lin Tsung-nan* (林宗男): lose the 15th Nantou County election (Independent, the percentage of votes: 22.08%), never return to DPP, died in 2010
9. *Chang Chun-hung* (張俊宏): lose the 16th Nantou County election (Independent, the percentage of votes: 1.14%)
10. *Li Ming-hsien* (李明憲): lose the 14th Chiayi County election (Independent, the percentage of votes: 4.36%)
11. *Wu Fang-ming* (吳芳銘): lose the 18th Chiayi County election (Independent, the percentage of votes: 17.89%), never return to DPP
12. *Wei Yao-chien* (魏耀乾): lose the 14th Tainan County election (Independent, the percentage of votes: 4.04%), never return to DPP, lose the 7th legislative election (Wei was placed on the Home Party list but not elected),

lose the 7th Lienchang County election (Independent, the percentage of votes: 4.54%)

13. *Kuo Pei-hung* (郭倍宏): lose the 12th Tainan City election (Independent, the percentage of votes: 7.43%), never return to DPP, establish Formosa Alliance in 2019
14. *Chang Tsan-hung* (張燦鍾): lose the 14th Tainan City election (Independent, the percentage of votes: 2.90%), never return to DPP
15. *Lin I-huang* (林易煌): lose the 14th Tainan City election (Independent, the percentage of votes: 1.86%), join the KMT and as a candidate of 9th legislative election but defeated (Tainan City Constituency 5, KMT, the percentage of votes: 24.28%)
16. *Su Huan-chih* (蘇煥智): lose the 3rd Tainan City election (Independent, the percentage of votes: 4.11%), never return to DPP, establish Taiwan Renewal Party in 2019
17. *Yang Chiu-hsing* (楊秋興): lose the 1st Kaohsiung City election (Independent, the percentage of votes: 26.68%), join the KMT and as a candidate of 2nd Kaohsiung City election but defeated (KMT, the percentage of votes: 30.89%), never return to DPP
18. *Hsu Li-yin* (許麗音): lose the 14th Penghu County election (Independent, the percentage of votes: 8.42%), lose the 15th Penghu County Council election (Independent, the percentage of votes: 3.45%), temporarily return to DPP and then withdraw, lose the 18th Penghu County Council election (Independent, the percentage of votes: 2.47%), the 19th Penghu County Council election (Independent, the percentage of votes: 1.86%)

List of KMT Candidates and Un-nominated Aspirants

1. Presidential Elections

9th: party rebels, KMT presidential and vice-presidential candidate: Lee Teng-hui and Lien Chan, Others: *Lin Yang-kang* (林洋港) (President of the Judicial Yuan) and *Hau Pei-tsun* (郝柏村) (Premier), *Chen Li-an* (陳履安) (President of the Control Yuan) and Wang Ching-feng (Independent, Committee of the Control Yuan)

10th: party rebels, KMT presidential and vice-presidential candidate: Lien Chan and Siew Wan-chang, Others: *Soong Chu-yu* (宋楚瑜) (Governor of Taiwan Province) and Chang Chau-hsiung (Independent)

11th: no party rebels, KMT presidential and vice-presidential candidate: Lien Chan and Soong Chu-yu (PFP, KMT aligned with PFP to propose common candidates)

12th: no party rebels, KMT presidential and vice-presidential candidate: Ma Ying-jeou and Siew Wan-chang

13th: no party rebels, KMT presidential and vice-presidential candidate: Ma Ying-jeou (Incumbent) and Wu Den-yih

14th: no party rebels, KMT presidential and vice-presidential candidate: Chu Li-luan and Wang Ju-hsuan (Independent)

2. Municipal Elections

a. Keelung City

12th: no party rebels, KMT mayor candidate: Lin Shui-mu (Incumbent)

13th: party rebels, KMT mayor candidate: Liu Wen-hsiung, Others: *Hsu Tsai-li* (許財利) (Incumbent Speaker of the Keelung City Council)

14th: no party rebels, KMT mayor candidate: Hsu Tsai-li

15th: no party rebels, KMT mayor candidate: Hsu Tsai-li (Incumbent)

16th: no party rebels, KMT mayor candidate: Chang Tong-rong

17th: party rebels, KMT mayor candidate: Hsieh Li-kung, Others: *Huang Ching-tai* (黃景泰) (Incumbent Speaker of the Keelung City Council)

18th: no party rebels, KMT mayor candidate: Hsieh Li-kung

b. New Taipei City (former Taipei County until 25 December 2010)

12th: party rebels, KMT mayor candidate: Tsai Sheng-pang, Others: *Chang Fu-tang* (張馥堂) (Incumbent Member of National Assembly), *Shih Chiung-wen* (石瓊文) (Incumbent Member of National Assembly)

13th: party rebels, KMT mayor candidate: Hsieh Shen-shan, Others: *Lin Chih-chia* (林志嘉) (Incumbent Member of Parliament)

14th: no party rebels, KMT mayor candidate: n.a. (KMT agreed not to put forward a candidate for the election, and to support Wang Chien-shien as representative of the Pan-Blue Coalition)

15th: no party rebels, KMT mayor candidate: Chou Hsi-wei

1st: no party rebels, KMT mayor candidate: Chu Li-luan

2nd: no party rebels, KMT mayor candidate: Chu Li-luan (Incumbent)

3rd: no party rebels, KMT mayor candidate: Hou You-yi

c. Taipei City

1st: no party rebels, KMT mayor candidate: Huang Ta-chou

2nd: no party rebels, KMT mayor candidate: Ma Ying-jeou

3rd: no party rebels, KMT mayor candidate: Ma Ying-jeou (Incumbent)

4th: no party rebels, KMT mayor candidate: Hau Lung-pin

5th: no party rebels, KMT mayor candidate: Hau Lung-pin (Incumbent)

6th: no party rebels, KMT mayor candidate: Lien Sheng-wen

7th: no party rebels, KMT mayor candidate: Ting Shou-chung

d. Yilan County

12th: no party rebels, KMT mayor candidate: Chang Chun-tang

13th: no party rebels, KMT mayor candidate: Liao Feng-teh

14th: no party rebels, KMT mayor candidate: Lu Kuo-hua

15th: no party rebels, KMT mayor candidate: Lu Kuo-hua

16th: no party rebels, KMT mayor candidate: Lu Kuo-hua (Incumbent)

17th: no party rebels, KMT mayor candidate: Chiou Shu-ti

18th: party rebels, KMT mayor candidate: Lin Zi-miao, Others: *Lin Hsin-hua* (林信華) (Vice-Magistrate of Yilan County)

e. Taoyuan City (former Taoyuan County until 25 December 2010)

12th: party rebels, KMT mayor candidate: Liu Pang-yu (Incumbent), Others: *Huang Mu-tien* (黃木添) (Incumbent Member of Taiwan Provincial Council)

13th: no party rebels, KMT mayor candidate: Chen Ken-te

14th: no party rebels, KMT mayor candidate: Chu Li-luan

15th: no party rebels, KMT mayor candidate: Chu Li-luan (Incumbent)

1st: party rebels, KMT mayor candidate: Wu Chih-yang, Others: *Wu Fu-tung* (吳富彤) (later as a candidate of Hakka Party)

2nd: no party rebels, KMT mayor candidate: Wu Chih-yang (Incumbent)

3rd: party rebels, KMT mayor candidate: Chen Shei-saint, Others: *Yang Li-huan* (楊麗環) (Incumbent Member of Parliament)

f. Hsinchu County

12th: party rebels, KMT mayor candidate: Cheng Yung-chin, Others: *Chou Hsi-man* (周細滿) (Incumbent Member of Taiwan Provincial Council)

13th: party rebels, KMT mayor candidate: Cheng Yung-chin, Others: *Chiu Ching-chun* (邱鏡淳) (Incumbent Member of Taiwan Provincial Council)

14th: no party rebels, KMT mayor candidate: Cheng Yung-chin

15th: no party rebels, KMT mayor candidate: Cheng Yung-chin (Incumbent)

16th: party rebels, KMT mayor candidate: Chiu Ching-chun, Others: *Chang Pi-chin* (張碧琴) (Incumbent Speaker of the Hsinchu County Council)

17th: party rebels, KMT mayor candidate: Chiu Ching-chun, Others: *Cheng Yung-chin* (鄭永金) (Magistrate of Hsinchu County)

18th: no party rebels, KMT mayor candidate: Yang Wen-ke

g. Hsinchu City

4th: party rebels, KMT mayor candidate: Tung Sheng-nan (Incumbent), Others: *Jen Fu-yung* (任富勇) (Mayor of Hsinchu City)

5th: no party rebels, KMT mayor candidate: Lin Chih-cheng

6th: no party rebels, KMT mayor candidate: Lin Junq-tzer

7th: no party rebels, KMT mayor candidate: Lin Junq-tzer (Incumbent)

8th: no party rebels, KMT mayor candidate: Hsu Ming-tsai

9th: no party rebels, KMT mayor candidate: Hsu Ming-tsai (Incumbent)

10th: no party rebels, KMT mayor candidate: Hsu Ming-tsai

h. Miaoli County

12th: party rebels, KMT mayor candidate: Chang Chiu-hua (Incumbent), Others: *He Chih-hui* (何智輝) (Incumbent Member of Parliament)

13th: party rebels, KMT mayor candidate: He Chih-hui (Incumbent), Others: *Fu Hsueh-peng* (傅學鵬) (Incumbent Member of Taiwan Provincial Council)

14th: no party rebels, KMT mayor candidate: Hsu Hsiang-kun

15th: no party rebels, KMT mayor candidate: Liu Cheng-hung

16th: no party rebels, KMT mayor candidate: Liu Cheng-hung (Incumbent)

17th: no party rebels, KMT mayor candidate: Hsu Yao-chang

18th: no party rebels, KMT mayor candidate: Hsu Yao-chang (Incumbent)

i. Taichung County (merged with the original provincial Taichung City to form the special municipality on 25 December 2010)

12th: no party rebels, KMT mayor candidate: Liao Liou-yi (Incumbent)

13th: party rebels, KMT mayor candidate: *Shyu Jong-shyong** (徐中雄), Others: *Kuo Jung-chen** (郭榮振) (Incumbent Member of Taiwan Provincial Council), *Liu Chuan-chung* (劉銓忠) (Incumbent Member of Taiwan Provincial Council)

14th: party rebels, KMT mayor candidate: Huang Chung-sheng, Others: *Lin Min-lin* (林敏霖) (Incumbent Speaker of the Taichung County Council)

15th: no party rebels, KMT mayor candidate: Huang Chung-sheng

j. Taichung City

12th: no party rebels, KMT mayor candidate: Lin Po-jung (Incumbent)

13th: no party rebels, KMT mayor candidate: Hung Chao-nan

14th: no party rebels, KMT mayor candidate: Hu Chih-chiang

15th: no party rebels, KMT mayor candidate: Hu Chih-chiang (Incumbent)

1st: no party rebels, KMT mayor candidate: Hu Chih-chiang (Incumbent)

2nd: no party rebels, KMT mayor candidate: Hu Chih-chiang (Incumbent)

3rd: no party rebels, KMT mayor candidate: Lu Shiow-yen

k. Changhua County

12th: party rebels, KMT mayor candidate: Juan Kang-meng, Others: *Hung Ying-hua* (洪英花) (Member of the National Assembly)

13th: party rebels, KMT mayor candidate: Juan Kang-meng, Others: *Chang Jung-chang* (張榮昌) (Member of the Changhua County Council)

14th: no party rebels, KMT mayor candidate: Yeh Chin-fong

15th: no party rebels, KMT mayor candidate: Cho Po-yuan

16th: no party rebels, KMT mayor candidate: Cho Po-yuan (Incumbent)

17th: no party rebels, KMT mayor candidate: Lin Tsang-min

18th: no party rebels, KMT mayor candidate: Wang Huei-mei

l. Nantou County

12th: no party rebels, KMT mayor candidate: Lin Yuan-lang (Incumbent)

13th: no party rebels, KMT mayor candidate: Hsu Hui-yu

14th: party rebels, KMT mayor candidate: *Lin Ming-chen** (林明溱), Others: *Chang Ming-hsiung** (張明雄) (Incumbent Member of Parliament)

15th: party rebels, KMT mayor candidate: Lee Chao-ching, Others: *Lin Ming-chen* (林明溱) (Jiji town mayor)

16th: party rebels, KMT mayor candidate: Lee Chao-ching (Incumbent), Others: *Chen Cheng-sheng* (陳振盛) (Member of Parliament)

17th: no party rebels, KMT mayor candidate: Lin Ming-chen

18th: no party rebels, KMT mayor candidate: Lin Ming-chen (Incumbent)

m. Yunlin County

12th: party rebels, KMT mayor candidate: *Liao Chuan-yu** (廖泉裕) (Incumbent), Others: *Chen Shi-chang** (陳錫章) (Incumbent Member of Parliament)

13th: party rebels, KMT mayor candidate: Su Wen-hsiung, Others: *Chang Jung-wei* (張榮味) (Incumbent Speaker of the Yunlin County Council), *Ou Ming-shien* (歐明憲) (Member of National Assembly)

14th: no party rebels, KMT mayor candidate: Chang Jung-wei

15th: no party rebels, KMT mayor candidate: Hsu Shu-po

16th: no party rebels, KMT mayor candidate: Wu Wei-chih

17th: no party rebels, KMT mayor candidate: Chang Li-shan

18th: no party rebels, KMT mayor candidate: Chang Li-shan

n. Chiayi County

12th: party rebels, KMT mayor candidate: *Li Ya-ching** (李雅景), Others: *Chen Shih-yung** (陳適庸) (Incumbent Magistrate of Chiayi County)

13th: no party rebels, KMT mayor candidate: Li Ya-ching (Incumbent)

14th: party rebels, KMT mayor candidate: Wong Chung-chun, Others: *Chen Sheng-san* (陳勝三) (Incumbent Commissioner of Department of Education, Chiayi County)

15th: no party rebels, KMT mayor candidate: Chen Ming-chen

16th: no party rebels, KMT mayor candidate: Wong Chung-chun

17th: no party rebels, KMT mayor candidate: Wong Chung-chun

18th: no party rebels, KMT mayor candidate: Wu Yu-jen

o. Chiayi City

4th: no party rebels, KMT mayor candidate: Chiang I-hsiung

5th: no party rebels, KMT mayor candidate: Chiang I-hsiung

6th: no party rebels, KMT mayor candidate: Chiang Ching-hsien, Others: *Chang Jung-tsang* (張榮藏) (Incumbent Member of the Chiayi City Council)

7th: no party rebels, KMT mayor candidate: Huang Min-hui

8th: party rebels, KMT mayor candidate: Huang Min-hui (Incumbent), Others: *Lin Sheng-fen* (林聖芬) (Incumbent Member of the Chiayi City Council)

9th: no party rebels, KMT mayor candidate: Chen I-chen

10th: no party rebels, KMT mayor candidate: Huang Min-hui, Others: *Hsiao Shu-li* (蕭淑麗) (Incumbent Speaker of the Chiayi City Council)

p. Tainan County (merged with the original provincial Tainan City to form the special municipality on 25 December 2010)

12th: party rebels, KMT mayor candidate: Huang Hsiu-meng, Others: *Huang Ting-chuan* (黃丁全) (Member of the National Assembly)

13th: no party rebels, KMT mayor candidate: Hung Yu-chin

14th: no party rebels, KMT mayor candidate: Wu Ching-ji

15th: no party rebels, KMT mayor candidate: Kuo Tien-tsai

q. Tainan City

12th: party rebels, KMT mayor candidate: Shih Chih-ming (Incumbent), Others: *Lin Nan-sheng* (林南生) (Incumbent Vice-Speaker of the Tainan City Council)

13th: party rebels, KMT mayor candidate: *Chen Jung-cheng** (陳榮盛), Others: *Lin Nan-sheng** (林南生) (Vice-Speaker of the Tainan City Council), *Fang Chin-hai* (方金海) (Incumbent Speaker of the Tainan City Council), *Lin Shou-hung* (林壽宏) (Incumbent Member of Taiwan Provincial Council)

14th: no party rebels, KMT mayor candidate: Chen Jung-cheng

15th: no party rebels, KMT mayor candidate: Chen Jung-cheng

1st: no party rebels, KMT mayor candidate: Kuo Tien-tsai

2nd: no party rebels, KMT mayor candidate: Huang Hsiu-shuang

3rd: no party rebels, KMT mayor candidate: Kao Su-po

r. Kaohsiung County (merged with the original Kaohsiung City to form the special municipality on 25 December 2010)

12th: no party rebels, KMT mayor candidate: Huang Pa-yeh

13th: no party rebels, KMT mayor candidate: Huang Hung-tu

14th: party rebels, KMT mayor candidate: Wu Kuang-hsun, Others: *Huang Pa-yeh* (黃八野) (Member of Kaohsiung County Council)

15th: no party rebels, KMT mayor candidate: Lin Yi-shih

s. Kaohsiung City

1st: no party rebels, KMT mayor candidate: Wu Den-yih

2nd: no party rebels, KMT mayor candidate: Wu Den-yih (Incumbent)

3rd: no party rebels, KMT mayor candidate: Huang Chun-ying

4th: no party rebels, KMT mayor candidate: Huang Chun-ying

1st: no party rebels, KMT mayor candidate: Huang Chao-shun

2nd: no party rebels, KMT mayor candidate: Yang Chiu-hsing

3rd: no party rebels, KMT mayor candidate: Han Kuo-yu

t. Pintung County

12th: no party rebels, KMT mayor candidate: Wu Tse-yuan

13th: no party rebels, KMT mayor candidate: Tseng Yung-chuan

14th: no party rebels, KMT mayor candidate: Wang Chin-shih

15th: no party rebels, KMT mayor candidate: Wang Chin-shih

16th: no party rebels, KMT mayor candidate: Chou Tien-lun

17th: no party rebels, KMT mayor candidate: Chien Tai-lang

18th: no party rebels, KMT mayor candidate: Su Ching-chuan

u. Taitung County

12th: party rebels, KMT mayor candidate: Chen Chien-nien, Others: *Chen I-nan* (陳益南)

13th: party rebels, KMT mayor candidate: Chen Chien-nien (Incumbent), Others: *Hsu Ching-yuan* (徐慶元) (Incumbent Member of Taiwan Provincial Council)

14th: no party rebels, KMT mayor candidate: Wu Chun-li

15th: no party rebels, KMT mayor candidate: n.a. (KMT did not endorse but to support Wu Chun-li, incumbent Magistrate of Taitung County)

16th: no party rebels, KMT mayor candidate: Huang Chien-ting

17th: no party rebels, KMT mayor candidate: Huang Chien-ting (Incumbent)

18th: party rebels, KMT mayor candidate: Rao Ching-ling, Others: *Kuang Li-chen* (鄺麗貞) (Magistrate of Taitung County, Wu Chun-li was suspended after inauguration on charges of corruption. Kuang joined the KMT and won the Taitung magisterial by-election in April 2006)

v. Hualien County

12th: party rebels, KMT mayor candidate: Wang Ching-feng, Others: *Lin Jung-hui*, (林榮輝) (Incumbent Member of National Assembly)

13th: no party rebels, KMT mayor candidate: Wang Ching-feng (Incumbent)

14th: no party rebels, KMT mayor candidate: Chang Fu-hsing

15th: no party rebels, KMT mayor candidate: Hsieh Shen-shan

16th: party rebels, KMT mayor candidate: Tu Li-hua, Others: *Fu Kun-chi* (傅崐萁) (Incumbent Member of Parliament), *Chang Chih-ming* (張志明) (Incumbent Vice-Magistrate of Hualien County)

17th: no party rebels, KMT mayor candidate: Tsai Chi-ta

18th: no party rebels, KMT mayor candidate: Hsu Chen-wei

w. Penghu County

12th: no party rebels, KMT mayor candidate: Kuo Tien-yu

13th: no party rebels, KMT mayor candidate: Lai Feng-wei

14th: no party rebels, KMT mayor candidate: Lai Feng-wei (Incumbent)

15th: no party rebels, KMT mayor candidate: Wang Chien-fa

16th: no party rebels, KMT mayor candidate: Wang Chien-fa (Incumbent)

17th: no party rebels, KMT mayor candidate: Su Kun-hsiung

18th: party rebels, KMT mayor candidate: Lai Feng-wei, Others: *Cheng Ching-fa* (鄭清發) (chairperson of the KMT local branch, Penghu County)

Appendix D Party Split from KMT and DPP and Their Performances

From KMT

New Party (1993-)

Municipal Elections

12th Taipei County: spoiler, Lee Sheng-feng (李勝峰) (the percentage of votes: 16.32%), KMT lost the election

4th Hsinchu City: not spoiler, Hsieh Chi-ta (謝啟大) (the percentage of votes: 10.06%), KMT won the election

1st Taipei City: spoiler, Jaw Shaw-kong (趙少康) (the percentage of votes: 30.17%), KMT lost the election

1st Kaohsiung City: not spoiler, Tang A-ken (湯阿根) (the percentage of votes: 3.45%), KMT won the election

13th Taipei County: not spoiler, Yang Tai-shun (楊泰順) (the percentage of votes: 2.34%), KMT lost the election

13th Miaoli County: not spoiler, Huang Ta-yeh (黃達業) (the percentage of votes: 5.66%), KMT lost the election

13th Taichung City: not spoiler, Sung Ai-ke (宋艾克) (the percentage of votes: 7.32%), KMT lost the election

13th Nantou County: spoiler, Chen Cheng-sheng (陳振盛) (the percentage of

votes: 7.26%), KMT lost the election

13th Tainan City: not spoiler, Kao Chia-chun (高家俊) (the percentage of votes: 1.46%), KMT lost the election

2nd Taipei City: not spoiler, Wang Chien-shien (王建煊) (the percentage of votes: 2.97%), KMT won the election

2nd Kaohsiung City: spoiler, Wu Chien-kuo (吳建國) (the percentage of votes: 0.81%), KMT lost the election, only 0.58%

People First Party (2000-)

Municipal Elections

14th Changhua County: not spoiler, Cheng Hsiu-chu (鄭秀珠) (the percentage of votes: 6.37%), KMT lost the election

14th Nantou County: spoiler, Chen Cheng-sheng (陳振盛) (the percentage of votes: 24.51%), KMT lost the election

14th Taitung County: winner, Hsu Ching-yuan (徐慶元) (the percentage of votes: 44.30%), KMT lost the election

14th Hualien County: not spoiler, Lai Cheng-hsiung (賴政雄) (the percentage of votes: 27.52%), KMT won the election

15th Keelung City: not spoiler, Liu Wen-hsiung (劉文雄) (the percentage of votes: 25.89%), KMT won the election

15th Miaoli County: not spoiler, Hsu Yao-chang (徐耀昌) (the percentage of votes: 17.07%), KMT won the election

15th Taichung City: not spoiler, Shen Chih-hwei (沈智慧) (the percentage of votes: 2.23%), KMT won the election

15th Hualien County: not spoiler, Fu Kun-Chi (傅崐萁) (the percentage of votes: 24.59%), KMT won the election

4th Taipei City: not spoiler, Soong Chu-yu (宋楚瑜) (the percentage of votes: 4.14%), KMT won the election

17th Hualien County: winner, Fu Kun-Chi (傅崐萁) (the percentage of votes: 56.53%), KMT lost the election

Taiwan Solidarity Union (2001-)

**as a member of pan-green coalition*

Minkuotang (2015-2019)

Municipal Elections

18th Hsinchu County: not spoiler, Hsu Hsin-ying (徐欣瑩) (the percentage of votes: 32.29%), KMT won the election

From DPP

Taiwan Independence Party (1996-)

Municipal Elections

13th Taichung County: not spoiler, Chien Wen-nan (錢文南) (the percentage of votes: 1.00%), DPP won the election

13th Tainan City: not spoiler, Cheng Pang-chen (鄭邦鎮) (the percentage of votes: 1.83%), DPP won the election

5th Chiayi City: not spoiler, Tsang Ting-sheng (臧汀生) (the percentage of votes: 1.80%), DPP lost the election

Taiwan Solidarity Union (2001-)

Municipal Elections

15th Keelung City: not spoiler, Chen Chien-ming (陳建銘) (the percentage of votes: 31.46%), DPP lost the election

15th Tainan City: not spoiler, Chien Lin Hui-chun (錢林慧君) (the percentage of votes: 12.95%), DPP won the election

4th Taipei City: not spoiler, Chou Yu-kou (周玉蔻) (the percentage of votes: 0.26%), DPP lost the election

4th Kaohsiung City: not spoiler, Lo Chih-ming (羅志明) (the percentage of votes: 0.86%), DPP won the election

Appendix E The Summary of Variables, Operationalization of Indicators, Data Sources and Descriptive Statistics

Variable	Operationalizaiton of indicators	Data Sources
Dominant party regime	Dummy variables (0: No, 1: Yes)	Autocratic Regime Data http://sites.psu.edu/dictators/
Regime duration	Continuous variables	Autocratic Regime Data
ASP with better performance	Dummy variables (0: No, 1: Yes)	ASPs: Loxton, J., 2015. Authoritarian successor parties. J. Democr. 26(3), 157-170. Better performance: Database of Political Institutions https://publications.iadb.org/en/database-political-institutions-2017-dpi2017 World Political Leaders 1945-2015 http://zarate.eu/countries.htm
GDP per capita	Log GDP, per capita (US dollars) Continuous variables	New Maddison Project Database http://www.ggdc.net/maddison/maddison-project/data.htm
GDP per capita growth	Percentage of GDP growth (%) Continuous variables	
Oil revenue	Dummy variables (0: No, 1: Yes)	1945-1999: Replication data for Fearon, J.D., Laitin, D.D., 2003. Ethnicity, insurgency, and civil war. Am. Pol. Sci. Rev. 97(1), 75–90 2000-2010: The World Bank http://data.worldbank.org
Parliamentarism	Dummy variables (0: No, 1: Yes)	Database of Political Institutions
Presidentialism	Dummy variables (0: No, 1: Yes)	Database of Political Institutions
Semi-presidentialism	Dummy variables (0: No, 1: Yes)	The Semi-presidential one http://www.semipresidentialism.com
Ethnic fractionalization	$1-\sum_{i=1}^{n} s_{ij}^2$, where s_{ij} is the share of ethnic group i (i = 1...n) in country j Continuous variables (0-1)	Fearon, J.D., 2003. Ethnic and cultural diversity by country. J. Econ. Growth 8(2), 195–222
Religious fractionalization	$1-\sum_{i=1}^{n} s_{ij}^2$, where s_{ij} is the share of religious group i (i = 1...n) in country j Continuous variables (0-1)	Alesina, A., Devleeschauwer, A., Easterly, W., Kurlat, S., Wacziarg, R., 2003. Fractionalization. J. Econ. Growth 8(2), 155–194
British colonies	A country that had been ruled by the British Empire Dummy variables (0: No, 1: Yes)	Replication data for Fearon, J.D., Laitin, D.D., 2003. Ethnicity, insurgency, and civil war. Am. Pol. Sci. Rev. 97(1), 75–90
Number of democratic transitions	Ordinal variables	Autocratic Regime Data
Years of entry	Continuous variables	Autocratic Regime Data
Regions	A list of region dummies (Africa, Asia, Europe, Latin America, Post-soviet states)	-
Military regimes	Dummy variables (0: No, 1: Yes)	Autocratic Regime Data
Former communist states	A state that is previously administered and governed by a single communist party guided by Marxism–Leninism Dummy variables (0: No, 1: Yes)	-

Vote share of ASP	Continuous variables (0–100%)	Main source Database of Political Institutions Global Elections Database http://www.globalelectionsdatabase.com/index.php/index Other source Adam Carr's Election Archive http://psephos.adam-carr.net Election Data Handbooks by Dieter Nohlen Wikipedia Election Lists by Country
Seat share of ASP	Continuous variables (0–100%)	Main source Database of Political Institutions Global Elections Database Other source Adam Carr's Election Archive Election Data Handbooks by Dieter Nohlen Wikipedia Election Lists by Country

(Continued).

Variable	N	Mean	S.D.	Min	Max
Dominant party regime	1443	0.261	0.439	0	1
Regime duration	1443	22.854	13.725	1	61
ASPs with better performance	1443	0.428	0.495	0	1
GDP per capita	1441	9294.741	7027.639	586	37253
GDP per capita growth	1441	0.021	0.049	0	0
Oil revenue	1443	0.065	0.247	0	1
Parliamentarism	1443	0.245	0.430	0	1
Presidentialism	1443	0.488	0.500	0	1
Semi-presidentialism	1443	0.267	0.443	0	1
Ethnic fractionalization	1443	0.433	0.226	0.0392	0.9084
Religious fractionalization	1443	0.350	0.210	0	0.8603
British colonies	1443	0.115	0.319	0	1
Number of democratic transitions	1443	0.674	0.868	0	4
Years of entry	1443	1983.8	14.826	1947	2009
Africa	1443	0.156	0.363	0	1
Asia	1443	0.162	0.369	0	1
Europe	1443	0.131	0.337	0	1
Latin America	1443	0.396	0.489	0	1
Post-soviet states	1443	0.155	0.362	0	1
Military regimes	1443	0.274	0.446	0	1
Former communist states	1443	0.254	0.436	0	1
Vote share of ASP	1427	14.664	17.130	0	68.49
Seat share of ASP	1411	16.389	20.405	0	95.12

Appendix F Data sources in Chinese of process-tracing methods

1. Historical Archives
先總統蔣公思想言論總集。1951。
中央委員會組織大綱。1952。
第二次全國代表大會第一次修正中國國民黨黨綱。1926。
臨時全國代表大會第三次修正中國國民黨黨綱。1938。
臺灣省接收委員會日產處理委員會結束總報告。1947。
中國國民黨轉帳撥用國有特種房屋及其基地之調查意見報告。2001。
中國國民黨七大控股公司綜合文件。1994。
劉維開編輯。1994。《中國國民黨職名錄》。臺北：中國國民黨中央委員會黨史委員會。
2. Biography
江南。1993。《蔣經國傳》。臺北：李敖出版社。
李松林。1993。《蔣經國的臺灣時代》。臺北：風雲時代出版社。
李松林。1996。《蔣經國晚年》。合肥：安徽人民出版社。
林倖妃。2017。《花媽心內話：陳菊 4000 天》。臺北：天下雜誌出版社。
3. Books and Journals
王春祝，彭懷真。1986。《中華民國內閣名人錄》。臺北：洞察出版社。
王鼎銘，范恩邦。2010，〈立委參選人競選支出的選舉效果：Jacobson 支出理論在台灣新選制下的再驗〉，《台灣政治學刊》，14(2): 3-35。。
陳明通。1995。《派系政治與臺灣政治變遷》。臺北：月旦評出版社。
4. Official Websites
中央選舉委員會選舉資料庫。2019。https://db.cec.gov.tw
內政部民政司政黨及政治團體財務申報。2019。https://www.moi.gov.tw/dca/03caucus.aspx
中國國民黨官方網站。2019。http://www1.kmt.org.tw/list.aspx?mid=25
民主進步黨官方網站。2019。https://www.dpp.org.tw/contact
立法院議事及發言系統。2019。https://lis.ly.gov.tw/lylgmeet/timeout.html

CONCLUSION

This dissertation addresses the question of which factors shape outcomes in autocratic regimes, and, in turn, what influences the survival of democratic regimes in light of their authoritarian legacies. I chose a binary classification of dictatorship—namely, contested and uncontested autocracies. In particular, contested autocracies are regimes where the leader's power is constrained either by an organised opposition or a strong regime party; conversely, leaders in uncontested autocracies face fewer constraints from unorganised opposition groups and a weak regime party. Therefore, this dissertation presents the argument that regimes which are able to curtail the dictator's powers, compared to uncontested autocracies, are associated with better institutional and socioeconomic outcomes during the authoritarian rule as well as a higher survival rate upon the transition to democracy. Specifically, regimes where the leader's power is constrained either by an organised opposition or a strong regime party are more likely to have an independent judiciary and experience higher levels of health expenditure. Furthermore, a strong regime party that promotes authoritarian stability has a positive impact on the longevity of succeeding democracies. This dissertation offers a mixed-methods approach to confirm the three arguments.

The three arguments reflect the core logic that preceding authoritarian regimes use to shape political institutions, party politics, and social structures of a country, thus determining the longevity of subsequent democracies. The first two papers of this dissertation provide evidence that regimes where the leader's power is constrained either by an organised opposition or a strong regime party are more likely to have better institutional and socioeconomic

outcomes during the authoritarian rule. Scholars have demonstrated that regimes where a dictator shares power with the ruling group, allows limited pluralism and political competition or relies on the popular support as contested autocracies are less likely to control the judiciary (Epperly 2017). Moreover, they probably will not infringe upon the autonomy of legally independent central bankers (Bodea et al. 2019); reduce public goods provision (Rosenzweig 2015); expropriate land or other private property (Wilson and Wright 2017); discourage private investment (Gehlbach and Keefer 2011); filter the Internet (Hellmeier 2016); repress non-governmental organisations (Böhmelt 2014); impede several areas of human development as health, education, gender equality, and basic freedoms (Miller 2015); and experience peace failure following a negotiated settlement in the aftermath of civil war (Mason and Greig 2017). The findings thus add to the richness of existing scholarship on the import of the factors on autocratic governance that are likely to vary with autocratic regime type.

The third paper provides evidence that the mechanisms which protect contested autocracies also lay the foundation for an institutional framework in which the subsequent democratic regimes are more likely to survive. Existing literature shows that autocracies with a strong regime party become more endurable by making power-sharing between the dictator and his ruling coalition possible (Magaloni 2008), considerably enhancing the unity of the elite (Kailitz and Stockemer 2017), or leading to a higher level of perceived trustworthiness, competence, and professionalism in the ruling party in the eyes of most voters (Oliver and Ostwald 2018). Furthermore, existing research has explored the lasting effects of autocratic ruling strategies on new

democracies in terms of party politics (Dinas and Northmore-Ball 2020; Frantz and Geddes 2016; Grzymala-Busse 2002, 2006, 2007; Hicken and Kuhonta 2011; Kitschelt 1995; Miller 2019; Riedl 2014), civil society (Bernhard and Karakoç 2007; Libman and Kozlov 2017; Neundorf et al. 2020; Pop-Eleches and Tucker 2011; Shirah 2014), and transitional justice (Pinto 2006), all of which relate to democratic survival. However, few works—except for Miller (2019) and Kim (2020)—explain regime dynamics and survival after democratisation in light of the mechanisms which promote autocratic regime stability. Accordingly, the dissertation fills this gap.

Finally, the first and third paper examine the determinants of judicial independence in dictatorships and post-authoritarian party politics from the power distribution perspective. The second paper incorporates the pattern of legitimation into the explanation of varying levels of health spending in dictatorships. Thus, the dissertation has a range of implications for the two strands of research on authoritarian regimes: power-sharing (Albertus and Menaldo 2012; Boix and Svolik 2013; Bonvecchi and Simison 2017; Frantz and Stein 2017; Magaloni 2008; Reuter and Remington 2009) and legitimation strategies (Dukalskis and Patane 2019; Gerschewski 2013; Kailitz 2013; Kailitz and Stockemer 2017; Mazepus et al. 2016; Von Soest and Grauvogel 2017) in understanding the inner logic of autocratic regimes.

Further work needs to be completed to exactly establish how legacies from contested autocracies affect new democracies in the manner that the dissertation does not demonstrate here. We need to consider a more sophisticated causal pathway that can link judicial independence, health expenditure, party politics, and succeeding democratic survival. In contested

autocracies, when in confrontation with a strong regime party, the opposition is expected to distinguish between ‘us’ and ‘them’, unite divergent social forces, and hold alliances together or build up a more organised party (Kanté 1994; Oloo 2002; Rigger 2001). As a result, bipolar contestations between the ruling party and the opposition decrease the likelihood of a fragmented party system, which inoculates subsequent democracies against political instability. Furthermore, bipolar contestations compel the ruling party to increase public goods provisions and support the protection of property rights to boost economic performance in case that the masses defect to the opposition. As a result, legal institutions are created to establish credible promises not to exploit the masses and expropriate their surplus to the incumbent’s advantage, thus laying a solid foundation of judicial independence.

Additional work needs to be done to identify a contextual variable that helps to explain the conditional effect of legacies from contested autocracies on new democracies. The dissertation found that dictatorships with a strong regime party lead to a strong performance of authoritarian successor parties and, thus, have a positive impact on the longevity of succeeding democracies. The effect, however, may depend on whether these parties are former autocratic ruling parties or parties that are newly created by high-level authoritarian incumbents in preceding ruling parties, and whether former autocratic ruling parties opt for democratisation. Miller (2019) notes that former autocratic ruling parties are more likely to succeed in democracy if they accede to democratisation rather than being overthrown prior to democratisation. This is partly due to their benefitting from greater continuity and influence on democratic design. It also depends on whether a strong regime party is able to

survive multiple leadership transitions. When a strong regime party is unable to survive beyond the founding leader's peaceful departure, it performs significantly worse on outcomes such as economic growth and conflict prevention (Meng 2019). Therefore, we expect that these parties lack resource advantages or organisational strength after democratisation and, in turn, are generally less endurable.

The dissertation found that dictatorships with an organised opposition are associated with a higher level of judicial independence. Yet, not all of the cooperation from the opposition parties shares the same characteristics. The stable presence of a major opposition party makes divide and rule a less effective strategy. This is because its stable existence proves that it is not ephemeral and may have enabled the party time to build a reputation for robust cooperation (Gandhi and Reuter 2013). Moreover, opposition parties that are more reliant on activists are less likely to be co-opted into the regime by increasing the party's ability to effectively mobilise their supporters as well as extract concessions from the incumbent (Buckles 2019). Future research should explore whether the effect of opposition unity on the judicial institution is conditional on the stability of the major opposition parties and the strength of the party's activist base, both of which would be of influence if the dictator requires increased concessions.

This dissertation has some limitations, one of which is that the data on the dependent and independent variables of primary interest do not span the full range between 1945 and 2010. For example, the data set available on opposition unity is for the period between 1975 and 2010 while covering the value of health expenditure worldwide from 1995 to 2010. Therefore, it would

be difficult to examine an integrated pathway that links the type of regime, judicial independence, health expenditure, and post-authoritarian party politics to succeeding democratic survival. In future research, we could test the validity of proposed arguments when more complete data become available. Another limitation is selection bias. The first paper only focuses on electoral autocracies, so it provides little basis for the generalisation of results to entire dictatorships. Theoretically speaking, elections serve an informational role that provides political actors with information about opposition unity. Empirically, it is impossible to calculate the sum of the squared seat shares in the opposition as a measure of opposition unity in dictatorships without holding elections. Nevertheless, we also recognised that further work needs to be done to construct a new index of opposition unity for analysing outcomes in autocratic regimes disregarding the holding of elections or otherwise.

Another limitation is the endogeneity issue. Autocratic regimes and their institutions or characteristics do not emerge out of nowhere and are hardly fully exogenous. This dissertation addresses endogeneity based on instrumental variables, lagged independent variables, synthetic control methods, and case studies. However, these methods have limitations and should be used with those limitations in mind. For example, finding instrumental variables of good quality is challenging as political, economic, and social variables that are correlated with regime types are very likely to influence outcomes in autocratic regimes. Additionally, the current literature showed some reservation regarding using an explanatory variable with its lagged value to avoid endogeneity problems (Reed 2015). In sum, more work should be done to combine different ways to deal with endogeneity concerns.

This research has at least two policy implications. First, the strategies guiding autocrats toward democratisation might lead to a more sustainable democracy if the use of such strategies is conditional on a strong performance of the authoritarian successor parties. One way to achieve this is to provide these parties (if they are weak) with valuable resources, such as a territorial organization and a robust source of party finance, that will help them flourish. The other way is to craft a strategy that will allow them (if they were incompetent in a past dictatorship) play the role of a constructive opposition or return to power (Loxton 2015). Second, scholars studying autocratic governance and democratic consolidation should pay close attention to the institutional factors which increase the likelihood of forming a strong regime party and a well-organised opposition. A feasible way to achieve this is to design a parliamentary constitution under which the reliance of the executive on the support of the legislature to hold office causes the dictator, as the chief executive, to cater to the demand of the elites. As a result, in parliamentary systems, elites are more likely to build strong regime used to institutionalize access-to-power positions and leadership succession by which the dictator's discretionary power is constrained (Yan 2020). Furthermore, a parliamentary constitution can induce opposition parties to coalesce around a single opposition candidate or an electoral alliance. In dictatorships adopting presidentialism as their constitutional design, the president's survival is independent of the parliament providing the dictator with greater room to act in accordance with his wishes. It, subsequently, deters parties from entering into a pre-electoral contract because they fear that the new president will use those powers to renege on any power-sharing agreement (Gandhi 2008).

This dissertation concludes the three papers with an argument that a contested autocracy is likely to be a benevolent dictatorship associated with better political and socio-economic outcomes, thus laying a solid foundation for its subsequent democratic survival. Lord Acton said, “Power tends to corrupt and absolute power corrupts absolutely”, which is also true when applied to non-democracies. Only with checks and balances in place, those in power can stay humble, take care of people, and promote good governance, compared to the ruler with unlimited power.

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