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ESSAYS ON CULTURAL TRANSMISSION,  
POLITICAL SOCIALISATION AND POLITICAL REGIMES

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## **Abstract**

This thesis is a collection of three essays that contribute theoretically and empirically to the literature on the joint evolution of political culture and institutions and how it might explain differences in political preferences and political systems across countries. The first essay presents a theory of leader influence in politics. It argues that interest-group leaders can influence policies and electoral outcomes through socialisation, endorsement, or both. The leader's decision of which mechanisms to implement depends on the characteristics of the group. Each mechanism differs in its effect on group members' preferences and candidates' announced political platforms. Leader endorsement helps to convey information to all participants and influences group members' preferences. Instead, leader socialisation permanently shapes group members' preferences toward his own. I develop four models of political competition, three of which examine separately or jointly the effects of those mechanisms on electoral platforms and outcomes. Furthermore, I illustrate the empirical relevance of the leaders' mechanisms by discussing the religious leaders' influence on politics in three case studies from different regions of the world. The second essay provides a theory on political-cultural transmission, political socialisation and democratisation. This essay claims that the transmission of political-culture matters for the transitions toward democracy and for becoming a stable democracy. However, some important long-standing unresolved issues and some contextual factors of a society affect the strength of the political transmission of preferences. They influence the steady state of the share of citizens who prefer a democratic system and, hence, the probability of democratisation for autocratic societies and the probability of remaining a democracy for democratic societies. A model of political-cultural transmission with overlapping generations is developed to examine the effect of inequality, democratic effectiveness, corruption, elite uncertainty and extra-elite socialisation on the probability of becoming or remaining a democracy, through their impact on the transmission of political preferences in the long run among citizens. The theoretical analysis shows that, in autocracies, inequality, elite uncertainty, and extra-elite socialisation increase the transmission of democratic political culture, which, in turn, increases the probability of democratisation. In counterpart, in democracies, inequality and corruption decrease the transmission of democratic political culture and, therefore, the probability of remaining in democracy. The last essay's primary goal is to provide empirical evidence on how long-standing issues such as inequality and corruption affect the most enduring form of support for democracy. Do inequality and corruption erode support for democracy? Scholars have long theorised that long-term

experience with a political system influences the support for it. However, the empirical evidence provided is weak. This study examines the effect of inequality and corruption on support for democracy in 119 countries over 30 years. It shows that inequality and corruption harm support for democracy. These findings highlight the importance of inequality and corruption as determinants of support for democracy. Furthermore, this article investigates if the effect of inequality on support for democracy differs between autocratic and democratic countries. Empirical evidence found a positive effect of inequality on support for democracy in autocratic countries. It suggests that the negative effect of inequality on support for democracy comes from long-term experience with a political system that has continually failed to accomplish its principles. These results are robust to different measures of inequality and corruption.

**Field:** Economics

**Keywords:** Cultural transmission, Political Culture, Political Systems, Inequality, Corruption, Support for Democracy, Political Socialisation, Endorsement, Political Competition, Leadership, Democratic Elections.



## Résumé

Cette thèse est un ensemble de trois essais qui contribue théoriquement et empiriquement à la littérature de l'évolution de la culture et des institutions politiques et comment cela peut expliquer les différences de préférences et de systèmes politiques entre les pays. Le premier essai présente une théorie sur l'influence des leaders d'opinion en politique. Il soutient que les leaders des groupes d'intérêt peuvent influencer sur les politiques et les résultats électoraux au travers de la socialisation, du soutien, ou des deux. Les décisions des leaders concernant les mécanismes à mettre en place dépendent des caractéristiques du groupe. Chaque mécanisme diffère dans ses effets sur les préférences des membres du groupe et sur les programmes politiques des candidats. Le soutien public d'un leader influence les préférences des membres de son groupe en facilitant la transmission des informations en son sein. En revanche, la socialisation par un leader forge les préférences des membres de son groupe à partir des siennes. Je développe quatre modèles de compétition politique, dont trois examinent séparément ou conjointement les effets de ces mécanismes sur les programmes et les résultats politiques. De plus, j'illustre la pertinence empirique des mécanismes utilisés par les leaders en étudiant l'influence des leaders religieux sur la politique dans trois études de cas dans différentes régions du monde. Le second essai fournit une théorie sur la transmission de la culture politique, de la socialisation politique et de la démocratisation. Cet essai affirme que la transmission de la culture politique importe dans la transition vers une démocratie et pour devenir une démocratie stable. Cependant, certains problèmes importants et non résolus de longue date, ainsi que certains facteurs contextuels d'une société, affectent l'intensité de la transmission des préférences politique. Ils influencent la part stationnaire de citoyens qui préfèrent un système démocratique et, par conséquent, la probabilité de voir une démocratisation pour les sociétés autocratiques, et ainsi, la probabilité de rester une démocratie pour les sociétés démocratiques. Un modèle de transmission politico-culturelle avec des générations qui se chevauchent est développé pour examiner les effets des inégalités, de l'efficacité démocratique, de la corruption, de l'incertitude des élites et de la socialisation extra-élite sur la probabilité de devenir ou de rester une démocratie, à travers leurs impacts sur la transmission des préférences politiques à long terme parmi les citoyens. L'analyse théorique montre que; dans les autocraties, les inégalités, l'incertitude des élites et la socialisation extra-élite augmentent la transmission de la culture politique démocratique, qui à son tour augmente la probabilité de démocratisation. A l'inverse; en démocratie, les inégalités et la corruption diminuent la transmission de la culture politique démocratique et, par conséquent, la probabilité de rester en démocratie. L'objectif

principal du dernier essai est de fournir des preuves empiriques sur la façon dont les problèmes de longue date tels que l'inégalité et la corruption affectent la forme la plus durable de soutien à la démocratie. Les inégalités et la corruption érodent-elles le soutien à la démocratie ? Les chercheurs ont longtemps émis l'hypothèse que l'expérience à long terme avec un système politique influence le soutien dont il bénéficie. Pourtant, les preuves empiriques fournies sont faibles. Cette étude examine l'effet des inégalités et de la corruption sur le soutien à la démocratie dans 119 pays sur 30 ans. Elle montre que l'inégalité et la corruption nuisent au soutien à la démocratie. Ces résultats soulignent l'importance des questions d'inégalité et de corruption dans un pays en tant que facteurs déterminants dans le soutien à la démocratie. En outre, cet article examine si l'effet des inégalités sur le soutien à la démocratie diffère entre les pays autocratiques et démocratiques. Dans les pays autocratiques, les preuves empiriques montrent l'effet positif de l'inégalité sur le soutien à la démocratie. Cela suggère que l'effet négatif des inégalités sur le soutien à la démocratie provient d'une expérience sur le long terme avec un système politique qui a continuellement échoué à accomplir ses principes. Ces résultats sont robustes à différentes mesures des inégalités et de la corruption.

**Domaine:** Economie

**Mots clés:** Transmission Culturelle, Culture Politique, Systèmes Politiques, Inégalités, Corruption, Soutien à la Démocratie, Socialisation Politique, Soutin Politique, Compétition politique, Commandement, Élections démocratique.



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# General Introduction

Political life and politics in general, are constantly impacted by various factors that govern human behaviour, such as preferences, beliefs and social norms. These cultural traits result from inherited genetics and transmission from generation to generation through learning and social interactions. One important transmission channel through which political culture develops is political socialisation. It also serves to create the basis for a long terms support for politics and political regimes, as the implementation of socialisation practices is likely to produce congruent political cultures. Therefore, a better understanding of the relationship between the cultural transmission of political preferences, electoral results and support for a political system matters, as those political issues will determine the future of societies. This dissertation provides some insight into these issues in three essays.

The first chapter was motivated by various political sciences studies discussing the religious leaders' influence on politics by looking at the data of the existing survey around the world asking citizens how much importance religious leaders should have on political matters. (Boas & Smith, 2019; Buehler, 2016; Maddox, 2005; Oros, 2005; Pew Research Center, 2012, 2013, 2014). For example, 50% of the Christian population (90.9% of the total population) in the Latin American region and 65.1% of the Muslim population (92.2% of the total population) in the Islamist region say that religious leaders should have a large or some influence on politics. In this chapter, I develop a formal analysis to explore the possible mechanisms through which a group leader can influence electoral policies and outcomes in democratic political systems. The explored mechanisms are leader socialisation and leader endorsement.

The second chapter was inspired by the literature on culture and political systems support (Almond & Verba, 1963; Bisin & Verdier, 2001; Easton, 1965, 1975). An important conclusion of these approaches has been that political institutions and culture are closely related and, therefore, cannot be analyzed separately in the long run, as they affect each other. This chapter built a framework to analyse the interaction between political-cultural changes and political systems principles, and also with the long-term experience with a political system's performance. Specifically, some important long-standing unresolved issues like inequality and corruption, and contextual factors, such as elite uncertainty and extra-elite socialisation, of a society affect the strength of the political transmission of preferences towards a political system which, in turn, affects the citizen's support for it.

The third chapter was motivated by Easton's (1965) theory of diffuse support for a political system, Lipset's (1959) theory of political legitimisation and Almond & Verba's (1963) theory of civic culture. According to Easton (1965, 1975), diffuse support - the most enduring form of support for a political system – is the evaluation of what a system is or represents. It is generated through socialisation and evolves with citizens' long-term experience with a political system. That is, the cultural transmission of political preferences for a political system interacts with the long-term experience of a political system, which affects diffuse support for democracy. Following the predictions of the model developed in chapter 2, this chapter provides the most extensive empirical test of the effect of inequality and corruption on diffuse support for democracy in a sample of 119 countries over 30 years. It also investigates if the effect of inequality on diffuse support for democracy differs between autocratic and democratic countries.

In the next section of this introduction, I present some relevant concepts used in this thesis. I then provide a brief outline of the analysis of the three chapters of the dissertation.

## **Definitions of some relevant concepts**

### *What does Culture mean?*

I follow the approach of Bisin & Verdier (2001, 2010) to conceptualise Culture. Culture is the set of traits, preferences, values, norms and attitudes that can be transmitted from generation to generation through various socialisation practices or social interactions.

### *What is Political Socialisation?*

Political socialisation is the process through which individuals internalise political attitudes, beliefs, cognitions and values towards relevant political matters, such as political systems, political participation, group loyalties, and patterns of decision-making in politics, among others. See Bender (1967) for a review of the various definitions of political socialisation. The different agents of political socialisation studied in this dissertation are the family (parental socialisation), leaders (leader socialisation) and school and mass media (extra-elite socialisation).

### *When is the leader considered a socialising agent?*

A leader is considered an agent of socialisation when he actively participates in shaping the shared understanding of “who we are”. In other words, the leader has to be capable of shaping

the group's social identities so that he and his proposals are seen as the concrete manifestation of group beliefs and values (Haslam et al., 2011). These kinds of leaders actively participate in politics. They create and shape identities such that they and their policies influence politics.

#### *What is Extra-elite Socialisation?*

Extra-elite socialisation is a type of oblique socialisation used by the elite to influence the political preference of citizens. To do so, they use agents of socialisation that they own, such as schooling and mass media.

### **A brief outline of the analysis of the thesis**

#### **Leader influence on politics**

Studies that analyse the role of group leaders in the policy process are scarce, and the investigations that build theoretical models to examine the mechanism through which leaders influence policies are even scarcer. There is also an increasing interest in political science studies discussing the influence of religious leaders on political matters like policies and electoral outcomes around the world. (e.g. Boas & Smith, 2019; Buehler, 2016; Maddox, 2005; Oros, 2005). Moreover, the views of citizens around the world on the influence that religious leaders should have on political matters suggest that they have the power to influence politics in a large number of Latin American, Middle Eastern and African countries (Howard, 2020; Pew Research Center, 2012, 2013, 2014). The motivation of the first chapter is to fill the gap in the existing literature that focuses on leader endorsement as the principal mechanism to influence policies and electoral outcomes by introducing leader socialisation as a new mechanism of influence.

In the political endorsement literature, group endorsement serves to convey information to a group of voters or voters in general about political platforms, the quality of candidates, and what policies to vote for, among others. For instance, McKelsey & Odeshook's (1985) model of two candidates' elections under asymmetric information, in which voters use group endorsement as sources of information to determine the policy position of candidates. Grofman & Norrander's (1990) model group endorsement signals to voters the ideological and policy preferences of candidates. Other papers study how voters can infer information through groups' endorsement of the quality of a candidate (Wittman, 2007). Grossman & Helpman's (1999)

model, the interest group leader endorses a candidate to convey information to the group members where their interest lies in some political issues. The general prediction of these models is that, under political competition, the candidates converge on policies that matter to interest groups, resulting in policies that favour interest groups over the population as a whole.

Few investigations studied leader socialisation to influence organisations or politics. Hernández et al. (2015) develop a dynamic model to study the leader's effectiveness in instilling corporate culture. They found that the leader as a socialiser agent is more effective than a charismatic leader in groups with lower levels of consistency and conformity. Bisin & Verdier (2000) build a model of coordinated socialisation effort at the group level where a collective institution decides the use of socialisation to shift or maintain the political and cultural status quo through a majority voting mechanism. Boas & Smith (2019) provide empirical evidence that evangelical religious leaders, through socialisation, affect church member behaviour in Brazil. They show that evangelicals are highly congruent in policies related to abortion and homosexuality, issues routinely touched on by religious leaders. They argue that religious organisations are a more powerful group political socialising agent than any political party in many new democracies.

Both strands of literature lead me to the following research: Under what conditions does a group leader implement endorsement, socialisation or both? How do those mechanisms affect candidates' political platforms and electoral outcomes in a democratic political system?

The first chapter presents probabilistic models of political competition to address these questions. It starts with a simple innovation of the probabilistic voting model (Persson & Tabellini, 2000) and the competing for endorsement model (Grossman & Helpman, 1996, 2001). In the model, there are two political parties, each having one representative for the elections. Each candidate's policy platform has a fixed part "fixed policy" and a flexible part "flexible policy". The former reflects the party's ideology, and the latter is chosen tactically for electoral competition. There are two groups of voters, the organised group, the club, and the independent voters. The club has a leader who can influence policies by making endorsement statements about a political candidate. The model then evolves to allow the club leader to act as a socialising agent. Here, the leader has different preferences from the club members, so he uses socialisation to bring their preferences closer to his own. Finally, both mechanisms of leader influence, endorsement and socialisation are examined. Each mechanism of influence has a different impact on the preferences of the club's members. Leader endorsement affects the popularity of the political candidate within the club. Leader socialisation shapes the preferences of the club members. This framework makes it possible to study the influence of

the leader in politics, as, through endorsement and socialisation mechanisms, the leader influences the voting preferences of club members, who in turn, under certain conditions, decide electoral and political outcomes in democratic societies.

The first prediction of this model is that the club characteristics determine which mechanisms will be implemented by the leader. Certainly, only in societies where the club population is large enough, such that the club members could influence policies and electoral outcomes by voting, the club leader can influence policies and electoral outcomes by influencing the club members' preferences. Likewise, the divergence of preferences between the leader and the club members matters in the choice of the leader's mechanism of influence. The more divergent those are, the more costly socialisation is. Therefore, leader endorsement is the most efficient mechanism. Contrary, the more convergent those are, the less costly socialisation is, a mechanism that gives more power to the leader. Thus, it is the most efficient mechanism.

The second prediction is that in societies where the leader has strategic behaviour, he can influence policies and electoral outcomes. Indeed, the leader's decision to propose the contract to a candidate depends on the strength of the leader's influence mechanisms versus the weighted ideological bias of the population towards a political party. That is, the political candidate the leader proposes the contract is most likely to win the election and, thus, the platform that favours the leader and his club is the one that is most likely to be implemented.

The third prediction is that each mechanism of influence affects candidates' policy platforms differently. Indeed it is the case. Leader endorsement positively affects the endorsed candidate's popularity among club members, which translates into an increase in his probability of winning. However, as endorsement is observable, politicians converge on the flexible policy. Leader socialisation shapes the club members' preferences, but its non-observability by candidates leads to a divergence in their flexible policies. The divergence between candidates' flexible policies decreases when the leader implements both mechanisms, suggesting that leader endorsement serves as an information channel for all voters.

## **Political Culture and Democratisation**

Although most scholars have long argued that support for democracy is key to the survival and consolidation of democracies (Almond & Verba, 1963; Easton, 1965, 1975), much of the theoretical and empirical research focuses on studying the relationship between specific issues

or contextual factors like inequality, corruption, uncertainty and others on the likelihood of democratisation (e.g. Acemoglu & Robinson, 2006; Answell & Samuels, 2014; Boix, 2003). Fewer studies investigate the role of political-cultural transmission in regime transition and consolidation (Ticchi et al., 2013). The second chapter of this thesis, inspired by the literature on culture and political systems, aims to fill this gap by emphasizing the role of political-culture transmission in explaining the transition and consolidation of democratic regimes.

A large literature in economics and political sciences studies regime transition and consolidation. Most of these either analyse the relationship between inequality and democracy (e.g. Acemoglu & Robinson, 2006; Boix, 2003; Grossman, 1995; Roemer, 1985) or the relationship between corruption and democracy (e.g. Manow, 2005; Martinola & Jackman, 2002; Mohtadi & Roe, 2003; Paldam, 2002; Rock, 2017). In these models, inequality is an important factor in shaping political transitions, and corruption also matters, as it affects the functioning of political systems through its effect on redistribution. Others argue that other factors such as uncertainty about the ruler type might lead to democratisation (e.g. Albertus, 2015; Albertus & Menaldo, 2012).

The literature on culture and support for political systems argue that support for democracy matters for the transition toward democracy and the survival of democracy. It has increased the empirical research looking at the impact of inequality and corruption on support for democracy (e.g. Anderson & Tverdova, 2003; Krieckhaus et al., 2014; Linde & Erlingsson, 2013). An important conclusion of the culturalist and system support approach is that political institutions and culture are closely related and therefore cannot be analyzed separately in the long run, as they affect each other. For instance, the arguments about the importance of political socialisation as a channel through which political culture develops and serves to create the basis for long-term support for a political system can be resumed as follows. Political socialisation matters in the evolution of political culture as it predisposes the new generation to absorb civic culture through exposure to the political attitudes and behaviour of the old generation (Almond & Verba, 1963). The process of political socialisation helps legitimise a political system, which is necessary for maintaining diffuse support for a political system (Easton, 1965). Moreover, Bisin & Verdier (2000) show that their cultural evolution model is useful for examining the interaction between culture and policies. They highlight the two-way causality between socialisation decisions and policy outcomes. Ticchi, Verdier & Vindigni (2013) develop a theory of endogenous regime transition in which political culture and political socialisation matter for regime consolidation. Another important insight from systems analysts and democratic theorists is that long-term political system ineffectiveness in meeting citizens'

expectations erodes system legitimacy and thus undermines support for a political system (Easton, 1975; Lipset, 1959).

Building on these insights, in chapter 2, I develop a theory to analyse the interaction between political-cultural changes and the principles of political systems, and also with long-term experience with the performance of political systems. In the basic version of the model of political socialisation and cultural transmission, the cultural trait to be transmitted is the ideological preference for a political system. There are two classes of homogeneous agents, the elite and the poor, and two possible political systems, autocracy and democracy. Children are born without well-defined preferences or traits. They acquired their preferences, initially, through the direct influence of their parents and then through the influence of the general population. Parental socialisation is costly, but parents' altruism motivates them to socialise their children, despite the cost they may incur. Under reasonable conditions, this model predicts that endogenous political socialisation leads to an equilibrium with heterogeneous preferences for a political system.

The first extension of the model examines how inequality affects the transmission of political culture preferences. The country starts as an autocracy. The political preference transmitted from democratic parents to their children is towards the principles of democracy, as they do not have democratic experience. The autocratic ruler always favours the elite, which, in turn, helps him to maintain his regime. The benefit and the cost of the elite depend on the level of inequality in the country. Then when elite uncertainty about the autocratic ruler type is incorporated into the model, the assumption that the autocratic ruler favours the elite is relaxed. These models predict that increases in inequality or elite uncertainty positively affect the transmission of political preferences toward democracy, which, in turn, increases the probability of democratisation of those societies. These predictions are in line with the ones made by political economy theory on democratisation (e.g. Acemoglu & Robinson, 2006; Albertus, 2015; Ansell & Samuels, 2014; Boix, 2003).

In an additional extension, an alternative channel of oblique socialisation (schooling and the media), extra-elite socialisation toward democracy, is incorporated into the elite uncertainty model. This model shows that extra-elite socialisation shifts the preference of the whole population with a larger share preferring a democratic system, even in cases where the autocratic leader will favour redistribution for the poor.

The following extension aims to study how democratic political systems' long-term performance in handling issues such as inequality and corruption affects the evolution of political-cultural preferences in a society in such ways that it erodes the likelihood of remaining



a democracy or becoming a stable democracy. In these models, the assumption of democracy as a perfect democratic system is relaxed. These models predict the ineffectiveness of a democratic system in reducing inequality and corruption negatively affects the transmission of political preferences toward democracy, which decreases the probability of remaining a democracy or becoming a stable democracy. These results support the claims of the literature on support for democracy that long-term experience with a political system in dealing with issues such as inequality and corruption should affect citizens' preferences and support for a political system (Almond & Verba, 1963; Easton, 1965, 1975; Inglehart, 1997; Lipset, 1959; Mauk, 2019).

### **Inequality, Corruption and Support for Democracy**

Researchers recognise that inequality and corruption undermine the principles of democracy and thus erode citizens' support for it. However, the empirical evidence of research focusing on the effect of inequality, corruption or both on the support for democracy is scarce. The main idea emerging from the studies helping to understand how inequality or corruption harms democracy is that inequality affects the behaviours and attitudes of citizens in ways that erode citizens' trust in democracy, decrease political participation and civic cooperation and lead to a delegitimisation of democracy. In other words, inequality and corruption affect citizens' political preferences for democracy and also its transmission, which, in turn, affects support for democracy. Chapter 3 aims to test empirically the effect of inequality and corruption on support for democracy, following the Eastonnnian definition of diffuse support for democracy.

In empirical research, the most studied subject is the relationship between inequality and democracy, followed by the ones studying the relationship between corruption and democracy.<sup>1</sup> The results of those studies suggest that the relationship between inequality and democracy is inconclusive and that the relationship between corruption and democracy follows an inverted U-pattern. Furthermore, the empirical research on inequality and democratic support suggests a negative relationship between them (Anderson & Singer, 2008; Andersen, 2012; Krieckhaus et al., 2014). Also, the empirical research on corruption and democratic support indicates a negative relationship between them (Collins & Gambrel, 2017; Erlingsson et al., 2016). Two

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<sup>1</sup> Answer & Samuels (2014), Boix (2003), Houle (2009), Przeworki et al. (2010) and Teorell (2010), among others, empirically analysed the relationship between inequality and democracy; and Manow (2005), Martinola & Jackman (2002), Mohtadi & Roe (2003), Rock (2017) and Paldam (2002), among others, empirically analysed the relationship between corruption and democracy.

important predictions of the effect of inequality and corruption on support for democracy can be made. On one hand, the political economy theory suggests that in countries with high inequality citizens will prefer a democratic system because it gives them political power to make redistribution possible (Acemoglu & Robinson, 2006; Boix, 2003; Meltzer & Richard, 1981). On the other hand, performance theory, whose focus is the functioning of the democratic political system, points out that inequality and corruption generate disillusionment with democracy, leading to lower levels of democratic support (Anderson & Tverdova, 2003; Krieckhaus et al., 2014). According to Krieckhaus et al. (2014), the difficulty in finding the effect of inequality on democracy may be due to how individuals evaluate the democratic system (prospective vs. retrospective). They conclude that high inequality could explain the higher demands for democratisation but leads to lower levels of democratic support.

An important issue with the system performance empirical research is that generally examines the effect of inequality and corruption on satisfaction with democracy. The problem is that this measure does not capture the more enduring form of support, the diffuse support of democracy, which is generated through socialisation and evolves with citizens' long-term experience with a political system. Chapter 2 motivates the use of diffuse support for democracy as the measure of democratic support for a political system in chapter 3, as my theoretical model predicts different paths of the effect of inequality on support for democracy. I argue in chapter 2 that inequality increases the preference for a democratic political system when citizens believe in its principles, as they expect it to work accordingly (perfect democracy). Nevertheless, when citizens have long-term experience with democracy, but issues like inequality and corruption remain, this bad long-term experience with democracy will decrease citizens' preferences for democracy (imperfect democracy). Therefore, I expect inequality to increase the support for democracy in autocratic countries and decrease the support for democracy in democratic countries.

Moreover, previous studies neither consider the possibility of omitted factors affecting inequality, corruption and support for democracy nor reverse causality between the explanatory variables and support for democracy, which are addressed in this chapter using the instrumental variables approach. Also, most of the research focuses on a single country (Collins & Gambrel, 2017; Linde & Erlingsson, 2013; Erlingsson et al., 2016). Others focus on a small number of countries and use a cross-sectional research design, which does not allow controlling for idiosyncratic country-specific factors (Andersen, 2012; Anderson & Singer, 2008; Wu & Chang, 2019). The most extensive study is the one of Krieckhaus et al. (2014), who covers 40

countries and 3 waves of the World Value Survey giving them a sample of 57 different country periods.

Inspired by what Lipset (1959) and Easton (1965, 1975) hypothesised more than 50 years ago, Chapter 3 investigates how long-term experiences with a political system influence the evolution of its support. Specifically, this essay examines the effects of inequality and corruption on diffuse support for democracy in a sample of 119 countries over 30 years. The three hypotheses investigated in this chapter are the following.

H1: Income inequality has a negative effect on support for democracy.

H2: Corruption negatively affects support for democracy.

H3: Income inequality increases the support for democracy in non-democratic countries.

These hypotheses are estimated using the instrumental variable approach to overcome the problems of reverse causality. Other issues like unobserved country-specific factors, heterogeneity and serial correlation are also taken into account when estimating the equations.

Various fixed-effect models with a cluster option are estimated using an instrumental variable approach to overcome the potential problems of reverse causality between explanatory variables and support for democracy and to control for unobserved country-specific factors, heterogeneity among countries and serial correlation. Moreover, to check the robustness of the results, each specification is estimated for different measures of inequality (Gini index, Palma ratio and share of total income that accrues to the top 1% of the population), corruption (political corruption, judicial corruption and clientelism) and democracy (electoral democracy and liberal democracy index). The main control variables are economic development, economic growth, educational background, unemployment rate, democracy, state capacity, natural resources dependence and crisis.

This chapter provides empirical evidence that inequality and corruption erode support for democracy. This essay found that inequality and corruption are strong determinants of support for democracy. The coefficients of these variables are strong and significant, which highlights the fact that these two longstanding issues matter to the survival and consolidation of a democratic political system, as they play a central role in determining the diffuse support for democracy.

The second important result is that inequality increases the support for democracy in non-democratic countries. This result is in line with the prediction of the model developed in chapter 2, in which inequality increases the transmission of preferences from a political system when a

country starts as an autocracy. It also argues in favour of the theoretical prediction of the political economy theory, which suggests that democracy is the better political system, as it allows a higher share of the population, the poor, to use it as a mechanism for redistribution (Acemoglu & Robinson, 2006; Boix, 2003; Meltzer & Richard, 1981).

Both findings suggest that the negative effect of inequality on support for democracy comes from long periods of citizens' discontent with the perceived performance of the democratic political system in handling inequality as stated by Easton's (1965, 1975) support system theory. They are also in concordance with the prediction of the model developed in chapter 2, in which long-term bad experiences with the performance of democratic political systems on handling inequality decrease the transmission of preferences toward the democratic political system, suggesting that it will decrease the support for democracy.



## **Chapter**

### **1. Leader influence on Politics**

## **Abstract**

This essay argues that interest-group leaders can influence policies and electoral outcomes through socialisation, endorsement, or both. The leader's decision of which mechanisms to implement depends on the characteristics of the group. Each mechanism differs in its effect on group members' preferences and candidates' announced political platforms. Leader endorsement helps to convey information to all participants and influences group members' preferences. Instead, leader socialisation permanently shapes group members' preferences toward his own. I develop four models of political competition, three of which examine separately or jointly the effects of those mechanisms on electoral platforms and outcomes. Furthermore, I illustrate the empirical relevance of the leaders' mechanisms by discussing the religious leaders' influence on politics in three case studies from different regions of the world.

**JEL Classification:** D02, D72, H4, O57, P48, Z12

**Keywords:** Socialisation, endorsement, political competition, leadership, club goods, religion, democratic elections.

## 1.1. Introduction

In economics, the literature on leadership mainly concentrates on corporate leadership. It focuses principally on leaders' characteristics, attributes or traits. Studies analysing the role of formal or informal group leadership in the political process are scarce. Of these, the majority consider a party representative or head of state a leader when studying the effect of political leaders' endorsement on policies and electoral outcomes.<sup>2</sup> However, given the nature of democracy, political leaders are not necessarily required to hold formal public office to influence policies. It is the case for leaders of organised groups such as trade unions, religious groups, social movements, and community organisations, among others.

From this perspective, I begin to develop a formal analysis to explore the possible mechanisms through which a group leader might influence electoral policies and outcomes. The first mechanism examined is leader endorsement. It is a well-known mechanism implemented by group leaders to influence policy in a competitive political arena. The second explored mechanism is leader socialisation.<sup>3</sup> Among others, some religious leaders and community leaders often have the power to transform or influence the beliefs and preferences of group members through socialisation.<sup>4</sup> For instance, Boas & Smith (2019) show that in Brazil, through socialisation, evangelical religious leaders make their church members the most congruent on the policy issues prioritised by their organisation. They argue that religious organisations are a more powerful group political socialising agent than any political party in many new democracies. Altogether, these led me to the following research questions. Under what conditions does a leader implement endorsement, socialisation or both? How do those mechanisms affect candidates' political platforms and electoral outcomes in a democratic political system?

To address these questions, I develop a probabilistic model of political competition following Grossman & Helpman's (1999) model. In their model, the leader of the interest group uses endorsement as a way to communicate information about the group's interest to the

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<sup>2</sup> Jones & Olken (2005) and Copus & Leach (2014) define a leader as the head of state or a party representative. McKelsey & Odeshook (1985), Grofman & Norrander (1990), Wittman (2007, 2009) and Grossman & Helpman (1999) study how endorsement affects policy and electoral outcomes.

<sup>3</sup> This article's view of the leader as a socialiser is motivated by the new theory of leadership developed in social psychology. Haslam et al. (2011) describe leaders as entrepreneurs of identity. They specify that *the core of this activity lies in shaping social identities so that the leader and his or her proposals are seen as the concrete manifestation of group beliefs and values*.

<sup>4</sup> Socialisation, in its different forms, is widely practised. It could be used, as a means, to reform or to maintain preferences about institutions, political systems, policies and culture in general. It contributes to the survival of families, groups and countries' cultural traits (Bisin & Verdier, 2001).



uninformed voters. In this model, however, there is an organised group, “a club”, with a representative, “the leader”. As in Grossman & Helpman model, the leader can influence policies by making some endorsement statement about a political candidate. Moreover, the platforms of political candidates have a fixed and flexible part. The fixed part reflects the party’s ideology. The politicians compete over the flexible policy to capture the share of voters required to win the election. Furthermore, I expand the model by introducing the possibility that the club leader acts as a socialising agent. The leader has different preferences from the club members, so he socialises them to bring their preferences closer to his own. He can also negotiate a contract with a political candidate by exchanging information on his socialisation capacity for monetary gains or future policies. Leader socialisation matters in political competition, as socialised club members would follow their leader and therefore vote for the leader’s endorsed candidate more easily than non-socialised voters. For example, in the Latin American region, the countries’ populations are majority or predominantly Christian and are socialised to Christian moral values. This may explain why when asking those people, How much influence religious leaders should have on political matters? In 15 of the 19 countries surveyed, more than 40 per cent of the population answered they should have a large or some influence on politics.<sup>5</sup> The importance citizens attach to religious leaders in influencing policies may be the reason why, in most Latin American countries abortion, euthanasia and same-sex marriage are not legal.<sup>6</sup>

In this context, our framework highlights three effects on the candidate’s probability of winning. The ideological effect is the population-weighted ideological bias towards a candidate. The endorsement effect is the impact that the leader’s endorsement has on the winning probability of the candidates when he decides to endorse one of them. The socialisation effect appears after the leader socialises the club members to his political preference, affecting candidates’ probability of winning. These last two effects make up the leader effect. This research assumes that since the leader has all the information, he acts strategically. Thus, the leader’s decision on which candidate to propose the contract depends on the strength of the leader’s effect. That is, when the leader effect is greater than the ideological effect, the leader will propose the contract to the candidate of his preference. Otherwise, the leader will propose the contract to the politician who has the fixed policy preferred by the club members. Therefore, the candidate approached by the leader has the highest probability of winning the election, which leads to the following results.

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<sup>5</sup> See Pew Research Center (2014)

<sup>6</sup> See Guttmacher Institute (2018), Pew Research Center (2019).

(1) Leader endorsement positively affects the endorsed candidate's popularity among club members, which translates into an increase in his probability of winning. However, as endorsement is observable, politicians converge on the flexible policy. (2) Leader socialisation shapes the club members' preferences, but its non-observability by candidates leads to a divergence in their flexible policies. (3) The divergence between candidates' flexible policies decreases when both mechanisms - socialisation and endorsement - are implemented. It suggests that the observability of leader endorsement decreases the information asymmetry between the political candidates. (4) The club characteristics determine which mechanisms will be implemented by the leader. When the club members have sufficiently divergent preferences for the flexible policy, leader endorsement becomes the most implemented mechanism, as socialisation is too costly for the leader. Instead, when club members have sufficiently convergent preferences for the flexible policy, leader socialisation will become his most implemented mechanism. (5) Leader socialisation capacity increases when; the whole population is less subject to popularity shocks, the club population is less subject to ideological biases and flexible policy taste increases. Moreover, the level of socialisation increases when the marginal return of endorsement increases, suggesting that leader socialisation is more efficient in societies where leader endorsement matters.

Section 1.5 considers three cases where club leaders influence politics around the world. Religious groups are specifically selected, as the role of religious leaders as socialising agents becomes evident in politics when dealing with moral issues. The three cases are consistent with our theoretical analysis. The Austrian case is the closest to the leader socialisation model.<sup>7</sup> The cases of Latin American and Democratic Islam correspond to the model of the leader's socialisation with endorsement. There is, however, a difference between them. In the former, some leaders of religious clubs are political candidates. In the latter, leaders of Islamic movements have not attempted to contest elections directly.

The essay takes the following form. Section 1.2 describes the related literature. In section 1.3, the theoretical framework is developed. It starts with a standard probabilistic model of political competition. Afterwards, the model evolves with the introduction of leader endorsement and leader socialisation. Then the findings are shown. Section 1.4 presents the benchmarking of the models to see how candidates' platforms are affected. Section 1.5 illustrates three case studies of leaders influencing politics. The final section contains a summary of the findings and discusses some possible extensions of the model.

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<sup>7</sup> The Code of Canon Law prohibits leaders of the Catholic church from holding public office and actively participating in political parties.

## 1.2. Related Literature

This work has a background in the literature on electoral competition and probabilistic voting. I continue with a long tradition of the electoral competition literature, where political candidates are assumed to be seeking office-motivated candidates (Downs, 1957; Hinich et al., 1972; Hinich & Ordeshook, 1970; Kramer, 1977; Hinich, 1977). The definition of the policy vector proposed is similar to the one given by Grossman and Helpman. In their research on electoral competition, they propose a policy platform composed of fixed and flexible policies.<sup>8</sup> The former highlights strong preferences or predetermined positions – parties’ political ideology or longstanding parties’ goals - and the latter refers to the policies elected strategically for each party in the electoral competition. The overall result of this literature is that politicians will converge on the politics in which they compete to win voters. The model developed in this study, by contrast, predicts a divergence between the policies announced by the candidates. Leader socialisation endogenous mechanism generates information asymmetry between candidates making persistent policy divergences between them, which remain even with the incorporation of leader endorsement into the model.

The modelling of voter utilities has antecedents in the probabilistic voting literature. Enelow & Hinch (1982) develop a model in which voter utility is affected by political candidates’ non-spatial characteristics and policy positions. They show that, under certain conditions, candidates’ non-spatial characteristics can impact the policies they adopt. Also, in Persson & Tabellini (1999, 2000, 2002), voter utility is affected by voters’ ideological political bias towards a political party and by a random variable. They found that electoral competition with a majority election leads to a targeted redistribution in favour of swimming voters at the expense of the provision of public goods.<sup>9</sup> I follow these works to define voter utility. However, my research goes further by defining voter utility in a way that allows the study of exogenous and endogenous mechanisms and, therefore, to determine the effect of leader socialisation and leader endorsement on voter preferences.

This article is related to cultural transmission and socialisation literature. Bisin & Verdier’s research conceptualises cultural transmission of traits as the result of interactions between intentional parental socialisation (direct vertical socialisation) and other forms of socialisation

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<sup>8</sup> See Grossman and Helpman (1996, 1999, 2001).

<sup>9</sup> Other articles analysing redistribution between socio-economic groups in a party electoral competition scenario are Lindbeck & Weibull (1987) and Dixit & Londregan (1995, 1996).

(oblique and horizontal socialisation).<sup>10</sup> For instance, Bisin & Verdier (2000) develop a model of coordinated socialisation effort at the group level where a collective institution decides the use of socialisation to shift or maintain the political and cultural status quo. Here an alternative point of view is proposed and considers “the club leader” as the principal agent of group socialisation. This analysis further focuses on the implications this endogenous socialisation mechanism has on electoral politics and outcomes.

This model is associated with the leadership literature. Most of this literature in economics studies the role of the leader as a motivator (Hermalin, 1998; Rotemberg & Saloner, 1993, 2000) and as a coordinator (Dewan & Myatt, 2008; Bolton et al., 2012). There is much less research in economics that studies the role of the leader as a shaper of preferences. Hernández et al. (2015) build a dynamic model to study the leader’s effectiveness in instilling corporate culture. The leader makes a costly socialisation effort to establish what he considers a fitting corporate culture. They found that the leader as a socialiser agent is more effective than a charismatic leader in groups with lower levels of consistency and conformity, that is, lower peer effects. A contribution of this model to the literature is that it analyses the role of leader socialisation in shaping the electoral behaviour of groups to influence electoral policies and outcomes.

Finally, this work is related to the political endorsement literature. McKelsey & Odeshook (1985) develop a model of two candidates’ elections under information asymmetry. Voters use data pools and group endorsements as sources of information. They found that, in equilibrium, a large proportion of voters act as if they are fully informed and that the policies announced by candidates converge to reflect the preference of these voters. Grofman & Norrander (1990) built a model where voters have two knowledgeable information sources. The endorsement of each source (group) towards a candidate signals the ideological and policy preferences of the candidates. They show that, under certain assumptions, voters are best off by adopting the choice of the group with preferences closest to their own and that even the group’s non-endorsement of a candidate may give them some clues. Other papers study how voters can infer information through groups’ endorsement about the quality of a candidate (Wittman, 2007) or the political position of the competing candidates (Wittman, 2009).<sup>11</sup> Grossman & Helpman

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<sup>10</sup> For a review of Cultural transmission literature, see Bisin & Verdier (1998, 2000, 2001, 2005), Bisin & Topa (2003), and Bisin et al. (2004), among others.

<sup>11</sup> Celebrity endorsement can give a signal about a candidate and affect political outcomes. Garthwaite and Moore (2013) empirically assess the impact of celebrity endorsements on political outcomes. Their result suggests that, in the 2008 US Democratic Presidential Primary, Oprah Winfrey’s endorsement increased approximately 1 million votes in favour of Obama. See also Grossman & Helpman (1996), in which campaign contributions allow uninformed voters to infer information about the candidates’ characteristics.

(1999) develop a model in which the interest group leader endorses a candidate to convey information on some policy issues. In their model, politicians compete for the endorsement of interest group leaders, resulting in policies that favour special interests at the expense of the population as a whole. In this literature, endorsement serves only to convey information to groups of voters or voters in general. Instead, here I consider that group leaders implement endorsement as a mechanism to influence policy and electoral outcomes through its effect on group members' preferences. Furthermore, none of these articles deals with the inferential thinking of competing candidates generated by leader endorsement in societies where leaders are socialising agents. In this framework, leader endorsement affects the political platform of both candidates. It directly affects the flexible policy of the endorsed candidate through the information disclosed in the leader contract. It indirectly influences the flexible policy of the challenger candidate since it gives him a better idea of the leader's socialisation capacity.

### **1.3. The Model**

The model developed in this chapter is an innovation of the standard probabilistic voting model (see Persson & Tabellini, 2000) and the competing for endorsement model (see Grossman & Helpman, 1996, 2001). In this model, voters are not only concerned with political candidates' platforms but also with the characteristics of the political candidates themselves.

The benchmark model in section 1.3.1 reaffirms the main ideas of the probabilistic model in electoral competition and lays the foundation for the extensions developed in the later sections of this chapter.

#### **1.3.1. A Simple Model: An Organized club**

Consider a model with two types of voters, independents and club members. Both types of voters are aware of the parties' fixed and flexible policies. Each voter's utility is affected by the chosen platform and by other exogenous characteristics of candidates and parties. For example, the voters' utility may depend on the characteristics of the candidates, such as their ability to lead a country or their charisma, or voters may derive some satisfaction from supporting the party with which they have developed historical ties. The difference between them is that club members are organised and perceive a utility from the public provision of club goods (flexible policy), whereas independent voters do not. Each group has a population size equal to  $\lambda_G$ .  $G =$

$\{1, 2\}$  indicates to which group the voters belong.  $\lambda_1$  is the independent population size, and  $\lambda_2$  is the club population size. The continuum of agents is equal to  $\sum_{G=1}^2 \lambda_G = 1$ .

The political parties  $A$  and  $B$  are competing to win elections. Each one holds a fixed position on a set of issues of immediate concern and has a candidate as its representative, who seeks to capture the majority of votes. Candidate  $A(B)$  is the representative of Party  $A(B)$ . Ahead of the elections, each candidate commits to a policy vector  $P_J = (v_J, Z_J)$ . This vector has two components: a fixed policy ( $v_J$ ), which reflects the party's ideology, and a flexible club goods policy ( $Z_J$ ). Both candidates want to win the elections, so they compete in the flexible policy. Assuming that the winner obtains an exogenous monetary rent or wage  $\bar{R}$ . Then the expected utility of the politician is,

$$(1) \quad E[W_J] = p_J \{\bar{R}\},$$

where  $p_J$  denotes the probability that candidate  $J$  wins the election.

### Voting and Voters

The fixed policy position of candidates, as well as their popularity, affects all voters. I made the following assumption corresponding to the flexible policy.

**Assumption (1):** The flexible policy only affects the utility of the club members.

The flexible policy is the part of the platform that corresponds to the club goods, to which independent voters are indifferent. The flexible policy matters to club voters, who have an ideal flexible policy  $Z_v$ . Thus, the utility function from a member “ $i$ ” of the group  $G$  is defined as follows:

$$(2) \quad U_{G,J}^i = -\gamma_G |Z_J - Z_v| + v_{G,J}^i + \delta_{G,J} \quad \text{with } \gamma_G \geq 0.$$

The utility of the club members depends negatively on the distance between the elected flexible policy ( $Z_J$ ) and the club member's ideal fixed policy ( $Z_v$ ).  $Z_v$  is uniformly distributed in the interval  $[0, 2Z_v^*]$ . So, the median voter's ideal flexible policy is  $Z_v^*$ .  $\gamma$  symbolises the intensity of club members' preferences for their ideal flexible policy. If the individual  $\in G = 2$ ,  $\gamma_2$  takes a positive value equal to  $\gamma$ , and 0 otherwise. The term  $v_{G,J}^i$  represents the assessment

of voter “ $i$ ”, who belongs to group  $G$ , over candidate  $J$ ’s fixed policy.  $\delta_{G,J}$  denotes candidate  $J$ ’s popularity within group  $G$ .

Each voter has an individual-specific political bias for the fixed position of candidate  $B$ , defined as  $v_G^i = v_{G,B}^i - v_{G,A}^i$ .  $v_G^i$  is assumed to be distributed uniformly in the interval  $\left[\frac{-(1-2b_G)}{2\phi_G}; \frac{(1+2b_G)}{2\phi_G}\right]$ , where  $\phi_G$  is the density distribution of group  $G$ . The parameter  $b_G$  reflects the average strength of group  $G$ ’s bias toward candidate  $B$ ’s fixed policy, where  $|b_G| < \frac{1}{2}$ . When  $b_G > 0$ , voters of group  $G$  are positively biased toward party  $B$ ’s fixed policy, and, therefore, that is the preferred fixed policy among them. On the contrary, when  $b_G < 0$ , voters in group  $G$  prefer party  $A$ ’s fixed policy.

The voters are uncertain about the candidate’s popularity “ $\delta_G = \delta_{G,B} - \delta_{G,A}$ ” until the announcement of their policy platform  $\delta_1 = \delta_2 = \delta$ . The random shock “ $\delta$ ” follows a uniform distribution in the interval  $[-\frac{1}{2\Omega}; \frac{1}{2\Omega}]$  with  $\Omega > 0$  as its density. These random shocks are common to all voters and affect candidate popularity.

An individual “ $i$ ” who belongs to the group  $G = \{1, 2\}$  chooses to vote for the candidate “ $A$ ” if and only if:

$$(3) \quad U_{G,A}^i \geq U_{G,B}^i + v_G^i + \delta_G.$$

Then given the candidates’ policy vectors and overall popularity  $\delta$ . The idiosyncratic bias that makes the swing voter of each group indifferent between the two candidates is,

$$\begin{aligned} v_1 &= -\delta. \\ v_2 &= \gamma[|Z_B - Z_v^*| - |Z_A - Z_v^*|] - \delta. \end{aligned}$$

## The Party and the Candidates

**Assumption (2):** Political parties and candidates compete to win the election.

Each political party seeks to maximise its representation in the governing body. The motivation for doing so is perhaps to implement the party’s ideological agenda. In proportional representation, the more votes a party has, the more political jobs it controls and the more seats it has in the legislature. Presidential candidates representing each party aim to win the election by competing in the flexible policy so that the winner can implement his or her party’s

ideological policy and gain other benefits. With this goal in mind, parties and their representatives select their flexible policy platforms to maximise the number of people who vote for their platform.

Let me define  $N_G^A \in [0, \lambda_G]$  as the total number of people in group  $G$  that supports politician A.

$$N_1^A = \lambda_1 \int_{\frac{(-1+2b_1)}{2\phi_1}}^{v_1} \phi_1 di = \lambda_1 \left[ \frac{1}{2} - b_1 + \phi_1 \{-\delta\} \right].$$

$$N_2^A = \lambda_2 \int_{\frac{(-1+2b_2)}{2\phi_2}}^{v_2} \phi_2 di = \lambda_2 \left[ \frac{1}{2} - b_2 + \phi_2 \{ \gamma[|Z_B - Z_v^*| - |Z_A - Z_v^*|] - \delta \} \right].$$

The probability that candidate A wins is:  $p_A = \Pr \left[ \sum_{G=1}^2 N_G^A > \frac{1}{2} \right]$

$$\sum_{G=1}^2 \left[ \lambda_G \left( \frac{1}{2} - b_G \right) - \lambda_G \phi_G \{\delta\} \right] + \lambda_2 \phi_2 \{ \gamma[|Z_B - Z_v^*| - |Z_A - Z_v^*|] \} > \frac{1}{2}$$

$$\delta < \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{ \gamma[|Z_B - Z_v^*| - |Z_A - Z_v^*|] \}}{\sum_{G=1}^2 \lambda_G \phi_G} \cong \delta^*$$

$$(4) \quad p_A = \Pr[\delta < \delta^*] = \frac{1}{2} + \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{ \gamma[|Z_B - Z_v^*| - |Z_A - Z_v^*|] \}}{\sum_{G=1}^2 \lambda_G \phi_G} \right].$$

Candidate  $B$  will follow the same strategy as politician  $A$  and thus choose a policy vector  $P_B$  that maximises his probability of being elected,  $p_B = 1 - p_A$ .

$$(5) \quad p_B = \frac{1}{2} - \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{ \gamma[|Z_B - Z_v^*| - |Z_A - Z_v^*|] \}}{\sum_{G=1}^2 \lambda_G \phi_G} \right].$$

The probability that the candidate  $J = \{A, B\}$  wins increases:

- With the share of voters who prefer the fixed policy of candidate  $J$ .
- With the distance between the two political vectors of the flexible policy.

Equations (4) and (5) allow solving the optimal choice of flexible policy for candidate  $J$ .

$$\max_{Z_J} E[W_J] = p_J \{\bar{R}\}.$$



The first-order condition (FOC) for each candidate yields to

$$(6) \quad Z_J^* = Z_v^*.$$

This result insight that candidate  $J$  will choose the level of flexible policy that corresponds to club members' ideal flexible policy.

**Proposition 1:** *Assume that Assumptions (1)-(2) hold. Then in an electoral equilibrium,*

- (1). *The politicians reach full policy convergence in the flexible policy  $Z_v^*$ .*
- (2). *The candidate with the highest probability of winning is the one representing the political party with the preferred fixed policy.*

Politicians are office-seeking. They choose a flexible policy that maximises their probability of being elected. Given the symmetry of the model, i.e.  $\frac{\partial p_A}{\partial Z_A} = \frac{\partial p_B}{\partial Z_B}$ , the FOCs lead to the same flexible policy position for both candidates  $Z_A^* = Z_B^* = Z_v^*$ .<sup>12</sup>

The second part of the Proposition comes directly from substituting (6) into (4) and (5). Indeed, when both types of voters prefer the same political party, the candidate who is more likely to win the election will be the one who represents the political party with the voters' preferred fixed policy. Namely, when the two types of voters have opposed preferences for the fixed policy (i.e. either  $b_1 < 0$  and  $b_2 > 0$  or  $b_2 < 0$  and  $b_1 > 0$ ), the likelihood of winning the elections will entirely depend on the sign of the weighted ideological bias  $-\sum_{G=1}^2 \lambda_G b_G = -\lambda_1 b_1 - \lambda_2 b_2$ .<sup>13</sup> If the sign is positive,  $p_A > p_B$ , reversely, if it is negative,  $p_B > p_A$ . Note that the club influences the country's policies when  $|b_2| > |b_1|$  and  $\lambda_2 > \lambda_1$ . Therefore, the election winner will be the candidate representing the party with the club members' preferred fixed policy. On the contrary, when  $|b_1| > |b_2|$  and  $\lambda_1 > \lambda_2$ , the club does not influence the fixed policy as the median voter is not a club member. Thus, the candidate elected will be the one with the independent voters' preferred fixed policy.

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<sup>12</sup> In our model, the voters that do not belong to the club are indifferent to the flexible policy. Candidates' announced flexible policies depend on the median club-group member's preferred flexible policy. However, if the members of the non-organized group are not indifferent with regard to the flexible policy. Then candidates' announced flexible policies will be the weighted average of the preferred flexible policy of both groups.

<sup>13</sup> See equation (4) and (5).

### 1.3.2. Leader Endorsement

Candidates announce their platforms under uncertainty about the leader's endorsement. Candidates do not know whether the leader will use his endorsement to influence electoral outcomes or not. Then from the maximisation of the expected utility of the politician  $J$ ,  $E[W_J] = p_J\{\bar{R}\}$ , the following convergence in the candidates' flexible policy is obtained

$$(7) \quad Z_A^* = Z_B^* = Z_v^*$$

The best strategy for the competing candidate is to set his flexible policy to the club members' ideal level since it increases the probability of winning for each candidate.

Extending the previous model to analyse the case in which the club leader coordinates the preferences of the club members by signalling his endorsement.

**Assumption (3):** Leader endorsement affects the popularity of the candidates within the club.

Voters are uncertain about the candidate's platform policy popularity “ $\delta_G = \delta_{G,B} - \delta_{G,A}$ ” until the announcement of the policy platforms. Candidate popularities differ between groups of voters since leader endorsement will affect their popularity within the club. As a result, i) the popularity of the candidates within group 1 will be determined only by the random shock “ $\delta_1$ ”, as the club leader does not influence this group. ii) The popularity of the candidates within the club will depend on “ $\delta_2$ ” which is composed of two factors. A random shock “ $\delta$ ” and a deterministic parameter “ $h(\varepsilon_B - \varepsilon_A)$ ”. The second factor depends on leader endorsement ( $\varepsilon_J$ ). Therefore, the distribution of  $\delta_2 = \delta + h(\varepsilon_B - \varepsilon_A)$  defines the flexible policy's popularity of a candidate. The parameter  $h$  denotes the marginal effect of the leader endorsing one of the candidates.

$$h(\varepsilon_B - \varepsilon_A) = \begin{cases} -h < 0, & \text{if the leader endorses candidate } A. \\ 0, & \text{if the leader decides not to endorse.} \\ h > 0, & \text{if the leader endorses candidate } B. \end{cases}$$

Each candidate's winning probability, when endorsed by the leader, is

$$(8) \quad p_A(\varepsilon_A = 1) = \frac{1}{2} + \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{\gamma[|Z_B - Z_v^*| - |Z_A - Z_v^*|] - h(\varepsilon_B - \varepsilon_A)\}}{\sum_{G=1}^2 \lambda_G \phi_G} \right]$$

$$p_B(\varepsilon_B = 1) = \frac{1}{2} - \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{\gamma[|Z_B - Z_v^*| - |Z_A - Z_v^*|] - h(\varepsilon_B - \varepsilon_A)\}}{\sum_{G=1}^2 \lambda_G \phi_G} \right]$$

**Assumption (4):** The leader endorses a candidate when his endorsement is an efficient information mechanism. That is when  $h > \frac{-\sum_{G=1}^2 \lambda_G b_G}{\lambda_2 \phi_2}$  since  $Z_A^* = Z_B^* = Z_v^*$ .

I assume that the leader decides to endorse a candidate when this acts as an efficient information mechanism. Otherwise, he decides not to do it since endorsing a candidate can damage the image and credibility of the leader among the club members. The leader acts as a coordinator of the group and is altruistic. The leader cares about how the results of flexible and fixed policies affect club members' utility. The leader can then strategically endorse a candidate to induce club voters to cast their ballots in favour of their collective interest. It occurs when the endorsement effect is greater than the ideological effect,  $h > \frac{-\sum_{G=1}^2 \lambda_G b_G}{\lambda_2 \phi_2}$ .

Then, it follows,

**Proposition 2:** Assume that Assumptions (1)-(3) hold. Then there is an electoral equilibrium such that

- (1). If Assumption (4) holds. An electoral equilibrium with endorsement follows, in which
  - (i). Candidates reach full policy convergence in the flexible policy  $Z_v^*$ .
  - (ii). If  $b_2 < 0$ , then  $\varepsilon_A = 1$  and  $p_A(\varepsilon_A = 1) > p_B(\varepsilon_A = 1)$ .
  - (iii). If  $b_2 > 0$ , then  $\varepsilon_B = 1$  and  $p_B(\varepsilon_B = 1) > p_A(\varepsilon_B = 1)$ .
- (2). Otherwise, the electoral equilibrium is characterised by Proposition 1.

This proposition is the result of (8) and (9). The leader strategically endorses a candidate when its effectiveness is high enough to influence electoral outcomes, which occurs when the endorsement effect is greater than the ideological effect. Then the higher the effectiveness of leader endorsement is, the higher the probability of winning for the endorsed candidate will be.

(i) comes directly from the maximisation of the candidates' utility. In (ii) and (iii) leader endorses candidate  $J$  depending on the ideological bias of the club members " $b_2$ " toward candidate  $J$ , where  $J = \{A, B\}$ . Since competing candidates have converged on the club members' ideal flexible policy, the only other parameter that affects their utilities is the ideological bias of the club members towards a candidate's fixed policy. Therefore, if the club

members are on average biased toward candidate  $A$  ( $B$ ),  $b_2 < 0$  ( $b_2 > 0$ ), the leader endorses candidate  $A$  ( $B$ ) to maximise club members' utility, which results in  $p_A(\varepsilon_A = 1) > p_B(\varepsilon_A = 1)$  ( $p_B(\varepsilon_B = 1) > p_A(\varepsilon_B = 1)$ ).

### 1.3.3. Leader Socialisation

This model characterises the electoral equilibrium when the club leader act as a socialising agent. It sets the stage for the next model, which identifies the conditions under which leader socialisation and leader endorsement affect political and electoral outcomes. To develop this model, I make the following assumptions,

**Assumption (5):** The leader chooses to implement socialisation as it is the best mechanism to influence policy and electoral outcomes without losing members.

The leader is concerned with flexible policy (club goods policy) and club future, reasons that make socialisation the best mechanism to influence club voters' preferences without affecting the club size. This is possible because leader socialisation shapes the identity of the club members in such a way that they see the leader's preferred position on the flexible issue as the one representing the club and, hence their own.

Let me define the club leader's ideal flexible policy position " $Z_L$ ". It could be equal to or greater than the club members' ideal policy " $Z_v^*$ ". The leader socialises club members because it increases the leader's utility in terms of the flexible policy, giving the club members the impression that they are choosing the candidate according to their preferences. If " $e$ " is the leader's socialisation capacity, then the ideal policy of the club voter after socialisation is

$$(9) \quad Z_v^*(e) = eZ_L + (1 - e)Z_v^* = e\Delta Z + Z_v^*, \text{ such that } e \in \{0,1\}.$$

Equation (9) indicates that the leader influences club voters' ideal policy through socialisation. Regarding flexible policy preferences, the larger the leader's socialisation capacity is, the closer the preferences of the club members and the leader will be.  $\Delta Z = Z_L - Z_v^*$  is the distance of the ideal fixed policy between the leader and club members before socialisation. The probability of winning for each candidate becomes,

$$(10) \quad p_A(e) = \frac{1}{2} + \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{\gamma[|Z_B - Z_v^*(e)| - |Z_A - Z_v^*(e)|]\}}{\sum_{G=1}^2 \lambda_G \phi_G} \right].$$

$$p_B(e) = \frac{1}{2} - \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{\gamma[|Z_B - Z_v^*(e)| - |Z_A - Z_v^*(e)|]\}}{\sum_{G=1}^2 \lambda_G \phi_G} \right].$$

Leader socialisation affects politicians' expected utility through its effect on club voters' preferences, which modifies the candidates' probability of winning.

**Assumption (6):** The leader has a capacity for socialisation,  $e$ , which is unobservable by the other political actors.

In particular, I assume that only the leader has information about his socialisation capacity. The leader can then decide to negotiate a contract,  $C_J$ , with a candidate, in which the leader can use this information in exchange for future monetary or policy gains “ $f$ ”.  $C_J$  is a dummy variable that takes the value of 1 if the politician accepts the leader contract and zero otherwise. In the contract,  $f$  denotes the future payment to the leader to which the politician commits if he wins the election. It could be either a monetary or an intrinsic value.

Consequently, if the leader proposes a contract to candidate  $J$  in exchange for a future gain, “ $f$ ”, and he accepts it. Politician  $J$  incorporates this information into his probability of winning and realises that it has changed from  $p_J$  to  $p_J(e)$ . In contrast, the challenger candidate  $-J$  has no information about “ $e$ ”, so he does not realise that his probability of winning has changed. Hence, the expected utility of the politician  $J$  is

$$(11) \quad E[W_J] = p_J(e) \{ \bar{R} - C_J * f \}.$$

Having defined the effect of leader socialisation on the club voter preferences and the candidates' probability of being elected, we can now define the leader's utility. It depends on his socialisation capacity “ $e$ ”, as it affects the probability of winning for the candidates and, therefore, the flexible policy outcome. Suppose the leader proposes a contract to candidate  $J$ , who accepts it. Then since candidate  $J$  has information about “ $e$ ”, it is in his best interest to announce a flexible policy  $Z_J^* = Z_v^*(e)$ . It is because the leader revealed his socialisation capacity to candidate  $J$  at the ex-ante stage of the game. Then the leader seeks to maximise

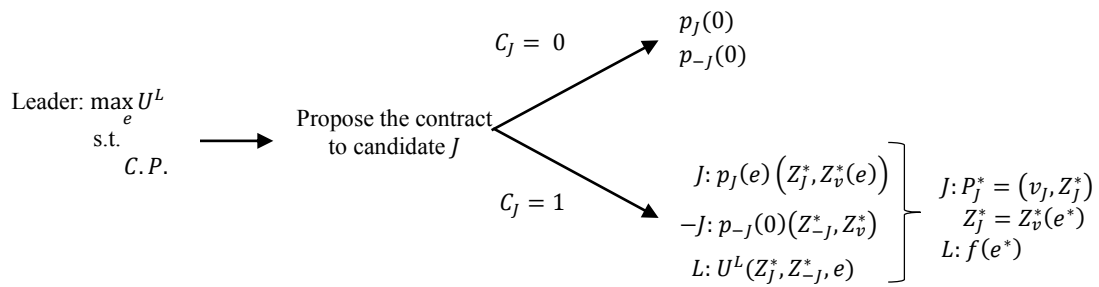
$$(12) \quad U^L = p_J(e)[- \gamma |Z_v^*(e) - Z_L| + f] + \{1 - p_J(e)\}[- \gamma |Z_{-J}^* - Z_L|] - \theta e \Delta Z.$$

The first (second) term represents the leader's utility if candidate  $J$  ( $-J$ ) wins the election. When candidate  $J$  wins the election, the leader's utility depends negatively on the distance of the flexible policy between candidate  $J$  and the club leader and on the leader's future gain established in the contract. However, when candidate  $J$  loses the election, the leader's utility depends negatively on the distance of the flexible policy between the elected candidate  $-J$  and the club leader. Leader socialisation has a cost represented by  $\theta e \Delta Z$ , with  $\theta > 0$ . It depends positively on the level of the leader's effort and the distance between the preferred flexible policy between the leader and the club members.

Timing of the model:

- Political parties publicly present their candidates for election.
- The leader decides which candidate to propose the contract,  $C_J$ . Then, if  $C_J$  is accepted, “ $e$ ” is revealed in exchange for a future gain “ $f$ ”.
- The politicians announce their political platforms.
- The election takes place.
- The candidate who wins the election optimally implements his policy vector.

**Figure 1: Leader socialisation game**



Backward induction is applied to solve the socialisation game defined above.

## Candidates' reaction policy

Suppose the club leader proposes his contract to candidate  $A$ , who accepts it. Next, the leader discloses information about his socialisation capacity to candidate  $A$ , who then incorporates it into his maximisation problem. He then maximises

$$\max_{Z_A} p_A(e) = \frac{1}{2} + \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{ \gamma [ |Z_B - Z_v^*(e)| - |Z_A - Z_v^*(e)| ] \}}{\sum_{G=1}^2 \lambda_G \phi_G} \right],$$

$$(13) \quad Z_A^* = Z_v^*(e).$$

However, candidate  $B$  does not have information about “ $e$ ”. He only knows the ex-ante ideal flexible policy for the club members. Therefore, he uses this information and maximises

$$\max_{Z_B} p_B = \frac{1}{2} - \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{ \gamma [ |Z_B - Z_v^*| - |Z_A - Z_v^*| ] \}}{\sum_{G=1}^2 \lambda_G \phi_G} \right],$$

$$(14) \quad Z_B^* = Z_v^*.$$

Candidate  $B$  does not realise that club voters' preferences have changed, as leader socialisation is not observable by candidates. The proposition of the leader contract to candidate  $A$  generates information asymmetry between candidates, leading the candidate not approached by the leader (candidate  $B$ ) to maximise the wrong probability. As a result, candidate  $B$ 's actual probability of winning is lower than the one he had calculated “ $p_B(e) < p_B$ ”.

In general, if the leader approaches candidate  $J$  with his contract. He accepts the leader contract if his expected utility is superior or equal to the one expected without it. Therefore, the political participation constraint ( $C.P.$ ) is given by

$$(15) \quad p_J(e) \{ \bar{R} - f \} \geq p_J \{ \bar{R} \}$$

If  $C.P.$  holds, candidate  $J$  will always accept the leader contract, as it increases his probability of winning (i.e.  $p_J(e) > p_{-J}(e)$ ).

### Leader's optimal level of socialisation

Having determined the validity of the candidate's participation constraint (C.P.), we can solve the optimal level of leader socialising capacity.

$$(15) \quad \max_e U^L = p_J(e)[- \gamma |Z_v^*(e) - Z_L| + f] + \{1 - p_J(e)\}[- \gamma |Z_{-J}^* - Z_L|] - \theta e \Delta Z$$

s.t.

$$p_J(e)f = \{p_J(e) - p_J\}\bar{R}$$

The first-order condition (FOC) of the leader's maximisation problem is

$$\left( \frac{\partial p_J(e)}{\partial e} \right) \{ \gamma [Z_v^*(e) - Z_{-J}^*] + \bar{R} \} + p_J(e) \gamma \Delta Z - \theta \Delta Z = 0.$$

Three main effects are governing the leader's socialisation marginal incentives. The first term comes from the effect of leader socialisation on candidate  $J$ 's probability of winning,  $\frac{\partial p_J(e)}{\partial e} = \frac{\Omega \lambda_2 \phi_2}{\Sigma_{G=1}^2 \lambda_G \phi_G} \gamma \Delta Z$ . Thus, the first term of the FOC is equal to  $\frac{\Omega \lambda_2 \phi_2}{\Sigma_{G=1}^2 \lambda_G \phi_G} \{ \gamma [Z_v^*(e) - Z_{-J}^*] + \bar{R} \} \gamma^2 \Delta Z$ . Notice that candidate  $J$ 's probability of winning and the leader's utility increases with  $e$ . Intuitively, the leader has incentives to increase his socialisation capacity “ $e$ ” not only because it increases his utility but also because it increases the attractiveness of accepting the leader contract for candidate  $J$ . Namely, the larger the “ $e$ ”, the smaller the distance between the flexible policy announced by candidate  $J$  and the ideal flexible policy of the club members, which induces them to vote for candidate  $J$ . The term,  $p_J(e) \gamma \Delta Z$ , captures the expected marginal benefit that the leader derives from socialisation. The last term,  $\theta \Delta Z$ , represents the marginal socialisation cost of the leader.

**Lemma 1:** *There is a unique interior optimal level of leader socialisation capacity such that*

$$(1). e^* = \frac{1}{2\gamma\Delta Z} \left\{ \frac{\frac{\theta}{\gamma} - \left( \frac{1}{2} + \frac{\Sigma_{G=1}^2 \lambda_G b_G}{\Sigma_{G=1}^2 \lambda_G \phi_G} \right)}{\frac{\Omega \lambda_2 \phi_2}{\Sigma_{G=1}^2 \lambda_G \phi_G}} - \bar{R} \right\} \text{ if the leader proposes the contract to candidate A.}$$

$$(2). e^* = \frac{1}{2\gamma\Delta Z} \left\{ \frac{\frac{\theta}{\gamma} - \left( \frac{1}{2} + \frac{\Sigma_{G=1}^2 \lambda_G b_G}{\Sigma_{G=1}^2 \lambda_G \phi_G} \right)}{\frac{\Omega \lambda_2 \phi_2}{\Sigma_{G=1}^2 \lambda_G \phi_G}} - \bar{R} \right\} \text{ if the leader proposes the contract to candidate B.}$$



There are three possible levels of leader socialisation capacity. One in 0, where the cost is so high that it makes it impossible for the leader to influence the preferences of club members through socialisation. Another at 1, when the marginal socialisation cost of the leader is so low that the socialisation return of the leader increases as  $e$  increases. Finally, a unique interior solution  $e^*$ , in which the leader's marginal socialisation cost equals the leader's marginal socialisation benefit. The level of this interior solution depends on which candidate the leader proposed his contract.

**Proposition 3:** *Assume that Assumptions (1), (2), (5)-(6) and  $e \neq \{0,1\}$  hold. Then there is an electoral equilibrium with leader endorsement such that*

(1). *If  $\lambda_2 \phi_2 \gamma e^* \Delta Z \geq |-\sum_{G=1}^2 \lambda_G b_G|$ . It follows that*

(i).  $P_J = (v_J, Z_v^*(e^*))$  and  $P_{-J} = (v_{-J}, Z_v^*)$ .

(ii). *If the leader prefers candidate A, then  $C_A = 1$  and  $p_A(C_A) > p_B(C_A)$ .*

(iii). *If the leader prefers candidate B, then  $C_B = 1$  and  $p_B(C_B) > p_A(C_B)$ .*

(2). *Otherwise,*

(i).  $P_J = (v_J, Z_v^*(e^*))$  and  $P_{-J} = (v_{-J}, Z_v^*)$ .

(ii). *If  $-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \gamma e^* \Delta Z > 0$ , then  $C_A = 1$  and  $p_A(C_A) > p_B(C_A)$ .*

(iii). *If  $-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \gamma e^* \Delta Z < 0$ , then  $C_B = 1$  and  $p_B(C_B) > p_A(C_B)$ .*

This proposition highlights the strategic behaviour of the leader. After determining his optimal level of socialisation, the leader has all the information required to decide which candidate to propose the contract. His decision will depend on the strength of the “socialisation effect” over the “ideological effect” on candidates’ probability of winning.<sup>14</sup>  $\lambda_2 \phi_2 \gamma e^* \Delta Z$  denotes the socialisation effect and  $-\sum_{G=1}^2 \lambda_G b_G$ , the ideological effect. Moreover, we know that the leader prefers the policy platform  $P_J = (v_J, Z_v^*(e))$  to  $P_{-J} = (v_{-J}, Z_v^*)$  because his utility is higher when the candidate  $J$  wins the election. Also, the leader will get  $f(e^*)$  in the future if the candidate to whom he proposes the contract wins the election. Therefore, in deciding to whom to propose the contract, he makes a trade-off between his preferred candidate and the candidate most likely to win the election. Then if the socialisation effect is smaller than the

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<sup>14</sup> The socialisation effect is the effect of leader socialisation capacity on the candidates’ probability of winning. The ideological effect is the effect of the population-weighted bias toward the fixed policy of a candidate has on candidates’ probability of winning.

ideological effect, the leader proposes the contract to the candidate with the most popular fixed policy. On the contrary, if the socialisation effect is greater than the ideological effect, he proposes the contract to his preferred candidate since his socialisation capacity is high enough to ensure that his chosen candidate has the highest probability of winning the election.

### 1.3.4. Leader Socialisation and Endorsement

In this sub-section, we describe under which situations the club leader decides which mechanism to implement to influence the voting behaviour of the club members. Afterwards, we determine the policy outcomes and electoral equilibrium. In this model, the club leader can shape the preferences of club members through socialisation, endorsement or both. A leader's socialisation capacity to influence club members' preferences allows him to negotiate a contract with his chosen candidate. In the contract, the leader gives information about his socialisation capacity and possible endorsement in exchange for a future gain  $f$ . The difference with the previous model relies on whether the leader decides to use his endorsement as a complementary mechanism to influence the preferences of the club member. However, since the endorsement is observable, it gives the challenger politician information about the possible level of leader socialisation capacity, which reduces the information asymmetry between the politicians.

The objective is to provide a joint characterisation of the leader's criteria to choose the candidate to whom he proposes the contract, the leader's rule to decide his endorsement and the policies adopted by the politicians with the available information they have.

#### The evolution of functions

The expected utilities of the politicians and the leader evolve as leader endorsement, seen in model 1.3.2, is incorporated into the model. The expected utility of the politicians becomes,

$$E[W_J] = p_J(e, \varepsilon_J) \{ \bar{R} - C_J * f \}$$

**Assumption (7):** The flexible policy's reaction function of candidate “ $-J$ ” depends on the leader's endorsement decision.

Suppose that leader proposes the contract to candidate “ $J$ ”, who accepts it. Then, candidate “ $J$ ” knows the leader's socialisation capacity and sets his optimal flexible policy to  $Z_J^* = Z_v^*(e)$ .

In contrast, the challenging candidate, “ $-J$ ”, has no information about the leader’s socialisation capacity but expects the leader to endorse candidate “ $J$ ” if the leader’s utility, when  $\varepsilon_J = 1$ , is at least equal to the leader’s utility when  $\varepsilon_J = 0$ . Therefore, the optimal flexible policy is  $Z_{-J}^* = \bar{Z}_{-J}^E$  if the leader endorses the candidate “ $J$ ” and  $Z_{-J}^* = \bar{Z}_{-J}^{NE}$  if the leader does not endorse the candidate “ $J$ ”.

Candidates’ probability of winning depends on the leader’s socialisation capacity and the leader’s endorsement decision.

$$(16) \quad p_A(e, \varepsilon_A) = \frac{1}{2} + \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{ \gamma [|Z_B - Z_v^*(e)| - |Z_A - Z_v^*(e)|] - h(\varepsilon_B - \varepsilon_A) \}}{\sum_{G=1}^2 \lambda_G \phi_G} \right].$$

$$p_B(e, \varepsilon_B) = \frac{1}{2} - \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{ \gamma [|Z_B - Z_v^*(e)| - |Z_A - Z_v^*(e)|] - h(\varepsilon_B - \varepsilon_A) \}}{\sum_{G=1}^2 \lambda_G \phi_G} \right].$$

Let candidate  $J$  be the one to whom the leader proposes the contract. Then leader utility becomes,

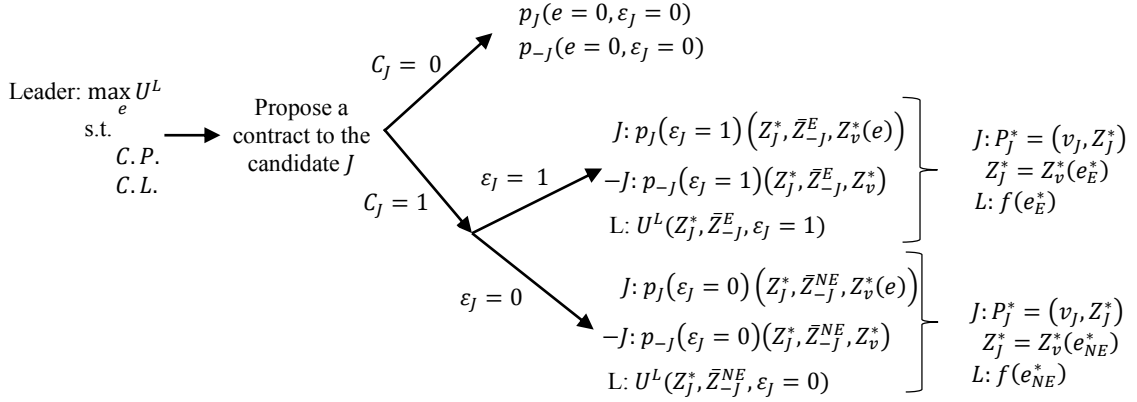
$$(17) \quad U^L = p_J(e, \varepsilon_J) [-\gamma |Z_v^*(e) - Z_L| + f] + \{1 - p_J(e, \varepsilon_J)\} [-\gamma |Z_{-J}^* - Z_L|] - \theta e \Delta Z.$$

Leader utility depends now on his socialisation capacity “ $e$ ” and endorsement decision “ $\varepsilon_J$ ” as they affect the winning probability of the candidates.

Timing of the model:

- The political parties publicly present their candidates.
- The leader decides which candidate to propose the contract,  $C_J$ . Then, if  $C_J$  is accepted, “ $e$ ” is revealed in exchange for a future gain “ $f$ ”.
- The leader makes his endorsement decision. If the leader does not endorse candidate  $J$  (i.e.  $Z_J^* = Z_v^*(e_E^*)$ ), the contender incorporates this information and reacts accordingly (i.e.  $Z_{-J}^* = \bar{Z}_{-J}^{NE}$ ). If the leader endorses candidate  $J$  (i.e.  $Z_J^* = Z_v^*(e_E^*)$ ), the contender realises this information and reacts accordingly (i.e.  $Z_{-J}^* = \bar{Z}_{-J}^E$ ).
- Political candidates announce their political platforms.
- The election takes place.
- The candidate who wins the election optimally implements his policy vector.

**Figure 2: Leader socialisation and endorsement game**



I use backward induction to solve the sequential Nash subgame perfect equilibrium of the leader socialisation and endorsement game. The electoral outcome for the flexible policy when a contract takes place is  $Z_J^* = Z_v^*(e_i^*)$  for the candidate approached by the leader and  $Z_{-J}^* = \bar{Z}_{-J}^i$  for the competing candidate.  $i = \{E, NE\}$  and the chosen value depends on the leader's endorsement decision.<sup>15</sup> To maximise their expected utilities, the politicians choose ex-post, the optimal level of  $Z_J^*$  and  $Z_{-J}^*$  that they will announce. The leader's endorsement decision has important implications for this model, as it affects the reaction function of the challenger candidate and thus his or her announced platform, which will also affect the determination of the optimal level of “ $e$ ”.

### Leader's endorsement decision (Step 3)

Suppose the leader proposes the contract to candidate  $J$ , who accepts it. Then the leader endorses candidate  $J$  only if,

$$U^L(\varepsilon_J = 1) \geq U^L(\varepsilon_J = 0)$$

for  $J = \{A, B\}$ , the value that makes the leader indifferent between making an endorsement or not is given by

<sup>15</sup> If the leader decides to endorse the candidate to whom he proposes the contract,  $i = E$ . Otherwise,  $i = NE$ .

$$p_J(\varepsilon_J = 1)[- \gamma |Z_v^*(e) - Z_L| + f^E] + \{1 - p_J(\varepsilon_J = 1)\}[- \gamma |\bar{Z}_{-J}^E - Z_L|] =$$

$$p_J(\varepsilon_J = 0)[- \gamma |Z_v^*(e) - Z_L| + f^{NE}] + \{1 - p_J(\varepsilon_J = 0)\}[- \gamma |\bar{Z}_{-J}^{NE} - Z_L|]$$

$f^E$  ( $f^{NE}$ ) is the leader's future expected pay-off when he endorses (does not endorse) candidate  $J$ .

Leader endorsement is decided in this step, which indicates that in step 2 the leader had successfully negotiated his contract with a candidate. That is,

$$(18) \quad p_J(e, \varepsilon_J = 1)\{\bar{R} - f^E\} = p_J(e = 0, \varepsilon_J = 0)\bar{R}$$

$$p_J(e, \varepsilon_J = 0)\{\bar{R} - f^{NE}\} = p_J(e = 0, \varepsilon_J = 0)\bar{R}$$

Let me define  $G(e) = U^L(\varepsilon_J = 1) - U^L(\varepsilon_J = 0)$ .

$$(19) \quad G(e) = \{p_J(e, \varepsilon_J = 1) - p_J(e, \varepsilon_J = 0)\}[\gamma Z_v^*(e) + \bar{R}] + \gamma \bar{Z}_{-J}^E [1 - p_J(e, \varepsilon_J = 1)]$$

$$- \gamma \bar{Z}_{-J}^{NE} [1 - p_J(e, \varepsilon_J = 0)]$$

**Assumption (8):** The function  $G(e)$  is a continuous monotonic function for all  $e \in [0,1]$  and  $e \sim U(0,1)$ .

This assumption implies that there exists only one indifference threshold,  $\bar{e}$ , at which the club leader is indifferent between endorsing or not politician  $J$ . It also allows for a simple characterisation of candidate  $-J$ 's flexible policy reaction function. Although candidate  $-J$  is unaware of the leader's socialisation capacity, he will use the information about the leader's endorsement decision to set his flexible policy.  $Z_{-J}^i$  for  $i = \{E, NE\}$  will depend on whether  $G(e)$  is an increasing or decreasing function.

If  $G(e)$  is an increasing function, candidate  $-J$ 's best response is to set  $Z_{-J}^{NE} = \frac{(\bar{e}^I)^2}{2} \Delta Z + \bar{e}^I Z_v^*$ , and  $Z_{-J}^E = \frac{(1 - (\bar{e}^I)^2)}{2} \Delta Z + (1 - \bar{e}^I) Z_v^*$  because candidate  $-J$  expects the leader to endorse candidate  $J$  only for the values of  $e \in [\bar{e}^I, 1]$ .  $\bar{e}^I$  is the expected leader endorsement indifference threshold. On the contrary, when  $G(e)$  is a decreasing function, candidate  $-J$  expects that the leader will endorse candidate  $J$  only if  $e \in [0, \bar{e}^I]$ . Then the candidate  $-J$ 's best response is to

set  $Z_{-j}^E = \frac{(\bar{e}^I)^2}{2} \Delta Z + \bar{e}^I Z_v^*$  and  $Z_{-j}^{NE} = \frac{(1-(\bar{e}^I)^2)}{2} \Delta Z + (1 - \bar{e}^I) Z_v^*$  (See Appendix 1 for further detail).

From the theory of rational expectations:  $\bar{e}^I = \bar{e}$ ,  $\bar{Z}_{-j}^E = Z_{-j}^E$  and  $\bar{Z}_{-j}^{NE} = Z_{-j}^{NE}$ . Substituting it into (19) gives the signs of  $G''(e)$  when  $G(e)$  is either an increasing or a decreasing function. For simplicity, I have normalised the densities  $\phi_1$ ,  $\phi_2$  and  $\Omega$  so that  $\sum_{G=1}^2 \lambda_G \phi_G = 1$  and  $\Omega = 1$  to determine the leader's indifference threshold " $\bar{e}$ ".<sup>16</sup> As the position of the indifference threshold depends on the model parameters, three additional reference thresholds are defined to identify it.

Threshold  $e_1 = \frac{1}{2} \left( \frac{1}{2} - \frac{Z_v^*}{\Delta Z} \right)$  comes from  $|Z_{-j}^E - Z_v^*(e)| = |Z_{-j}^{NE} - Z_v^*(e)|$ .  $e_1 \in [0,1]$  only in societies where  $\frac{Z_v^*}{\Delta Z} < \frac{1}{2}$ . The second threshold  $e_2 = \sqrt{1 + \left(1 + \frac{Z_v^*}{\Delta Z}\right)^2} - \left(1 + \frac{Z_v^*}{\Delta Z}\right)$  is found by equalizing  $Z_{-j}^i$  with  $Z_v^*(\bar{e})$ .  $Z_{-j}^i = Z_{-j}^E$  when  $G'(e) \geq 0$  and  $Z_{-j}^i = Z_{-j}^{NE}$  when  $G'(e) \leq 0$ .<sup>17</sup> The last threshold  $e_3 = \sqrt{\frac{1}{4} + \left(\frac{1}{2} + \frac{Z_v^*}{\Delta Z}\right)^2} - \frac{Z_v^*}{\Delta Z}$  is obtained when  $Z_{-j}^E = Z_{-j}^{NE}$ .  $G(e_3) > 0$  for all non-zero values of the parameters. It implies that  $\bar{e} < e_3$  when  $G'(e) \geq 0$  and  $\bar{e} > e_3$  when  $G'(e) \leq 0$ .

**Lemma 2:** Assume that Assumption (8) holds. Then there exists a unique  $\bar{e}$  such that

- (1) If  $G'(e) \geq 0$  and  $\lambda_2 > \underline{\lambda_2}$ 
  - (i).  $\bar{e} \in [0, e_1)$ , when  $\frac{Z_v^*}{\Delta Z} < \frac{1}{2}$ .
  - (ii).  $\bar{e} \in [0, e_2)$ , when  $\frac{Z_v^*}{\Delta Z} \geq \frac{1}{2}$  and  $Z_{-j}^E > Z_v^*(e)$ .
  - (iii).  $\bar{e} \in [e_2, e_3)$ , when  $\frac{Z_v^*}{\Delta Z} \geq \frac{1}{2}$  and  $Z_v^*(e) \geq Z_{-j}^E$ .
- (2) If  $G'(e) \leq 0$  and  $\lambda_2 > \underline{\underline{\lambda_2}}$ 
  - (i).  $\bar{e} \in (e_3, 1]$ , when  $Z_v^* > \bar{Z}_v$ .

Lemma 2 characterises indifference threshold  $\bar{e}$  for different values of the model parameters.  $\underline{\lambda_2}$  and  $\underline{\underline{\lambda_2}}$  are the values of  $\lambda_2$  at which  $G(e = 0) = 0$  when  $G(e = 1) = 0$  and  $G(e = 1) = 0$  when  $G'(e) \geq 0$  respectively.<sup>18</sup> The three defined thresholds  $e_1$ ,  $e_2$  and  $e_3$  decrease with  $\Delta Z$ ,

<sup>16</sup> After the normalization of the parameters,  $k = \lambda_2$ .

<sup>17</sup>  $Z_{-j}^E$  when  $G'(e) \geq 0$  is equal to  $Z_{-j}^{NE}$  when  $G'(e) \leq 0$ .

<sup>18</sup> Refer to the Proof of Lemma 3 to determine club population size thresholds.

suggesting that the greater the divergence between the leader and the club members on the flexible policy is, the higher the indifference threshold  $\bar{e}$  will be.

In (1), for a club population size such that  $\lambda_2 > \underline{\lambda_2}$ ,  $\bar{e} < e_3$ . (i) In a club with a divergence of preferences for the flexible policy high enough  $\left(\frac{Z_v^*}{\Delta Z} < \frac{1}{2}\right)$ , leader endorsement is an effective mechanism to influence club voters' behaviour, as leader socialisation is costly. (ii) In a club with a divergence of preference for the flexible policy low enough  $\left(\frac{Z_v^*}{\Delta Z} \geq \frac{1}{2}\right)$ , leader endorsement is an effective mechanism to affect club voters' behaviour, given that greater convergence of preferences makes leader endorsement more efficient. In (iii), however, as preferences become more convergent, the leader requires less the adoption of his endorsement as a mechanism to influence the vote of club members.

In (2), for a club population size  $\lambda_2 > \underline{\lambda_2}$ ,  $\bar{e} > e_3$  when  $Z_v^* > \bar{Z}_v$ . That is, when the convergence of preferences for the flexible policy between the leader and the club members is high enough, leader socialisation is the most efficient mechanism to influence club voters' behaviour, given that as within-club preference convergence increases, leader socialisation cost decreases.

All this suggests that the leader's endorsement decision depends on the characteristics of the club. Leader endorsement is crucial to affect the club's voting behaviour when the divergence of preferences for the flexible policy is high, as it is less costly than socialisation. In contrast, leader socialisation becomes the most efficient mechanism to influence the club's voting behaviour when the convergence of preferences is high.

### **Candidate “J” participation decision (Step 2)**

Candidate “J” accepts the leader contract if his expected utility is superior or equal to the one expected without it. Then, candidate J participation constraint (C.P.) is verified since the leader sets  $f \in \{f^E, f^{NE}\}$  such that (19) is binding. Therefore, knowing the leader's socialisation capacity increases a candidate's probability of winning regardless of the leader's endorsement decision.

$$(19) \quad \begin{aligned} p_J(e, \varepsilon_J = 1)\{\bar{R} - f^E\} &\geq p_J(e = 0, \varepsilon_J = 0)\bar{R} \\ p_J(e, \varepsilon_J = 0)\{\bar{R} - f^{NE}\} &\geq p_J(e = 0, \varepsilon_J = 0)\bar{R} \end{aligned}$$

### Choice of the leader's mechanism and utility maximisation (Step 1)

The optimal leader socialisation capacity level “ $e^*$ ” can be solved. The possible scenarios will depend on the level of  $e$  and the characteristics of the club.

$$\max_e U^L (C_J = 1) = p_J(\varepsilon_J) [-\gamma |Z_v^*(e) - Z_L| + f^i] + \{1 - p_J(\varepsilon_J)\} [-\gamma |Z_{-J}^{i*} - Z_L|] - \theta e \Delta Z$$

The FOC, disregarding the constraints, is

$$\left( \frac{\partial p_J}{\partial e} \right) \gamma [Z_v^*(e) - Z_{-J}^{i*} + f^i] + p_J \gamma \Delta Z - \theta \Delta Z = 0.$$

Three effects are governing the marginal incentives on the leader's choice of level of socialisation and endorsement decision. The first comes from the effect of leader socialisation and endorsement on candidate  $J$ 's probability of winning when he accepts the contract. The second term is the expected marginal benefit that the leader obtains from socialisation. The last term is the marginal socialisation cost of the leader.

### Leader socialisation equilibrium with and without endorsement

Club leader maximises

$$(20) \quad \max_e U^L = p_J(\varepsilon_J) [-\gamma |Z_v^*(e) - Z_L| + f^i] + \{1 - p_J(\varepsilon_J)\} [-\gamma |Z_{-J}^{i*} - Z_L|] - \theta e \Delta Z$$

s.t.

$$C.P.: p_J(e, \varepsilon_J) \{\bar{R} - f^i\} = p_J(e = 0, \varepsilon_J = 0) \bar{R}$$

$C.L.$

The first constraint is candidate  $J$ 's participation constraint, which, as explained in step 2, is always satisfied.  $C.L.$  denotes the constraint of the leader's decision of endorsement “ $\varepsilon_J$ ”. It is equal to 0 for all  $e \in [0, \bar{e}]$ , when  $G'(e) < 0$  and for all  $e \in [\bar{e}, 1]$ , when  $G'(e) > 0$ . Otherwise, it is equal to 1. The contender of politician  $J$  observes leader endorsement and his best response is to set  $Z_{-J}^* = Z_{-J}^{NE}$ , when  $\varepsilon_J = 0$  and  $Z_{-J}^* = Z_{-J}^E$ , when  $\varepsilon_J = 1$ .



The FOC of leader maximisation problems with and without his endorsement are

$$-k\gamma^2\Delta Z \frac{(Z_{-J}^E - Z_v^*(e))}{|Z_{-J}^E - Z_v^*(e)|} (Z_v^*(e) - Z_{-J}^E + \bar{R}) + p_J(\varepsilon_J = 1)\gamma\Delta Z - \theta\Delta Z = 0$$

$$-k\gamma^2\Delta Z \frac{(Z_{-J}^{NE} - Z_v^*(e))}{|Z_{-J}^{NE} - Z_v^*(e)|} (Z_v^*(e) - Z_{-J}^{NE} + \bar{R}) + p_J(\varepsilon_J = 0)\gamma\Delta Z - \theta\Delta Z = 0$$

Rearranging the FOCs,

$$(21) \quad I_E - k\gamma \frac{(Z_{-J}^E - Z_v^*(e))}{|Z_{-J}^E - Z_v^*(e)|} (Z_v^*(e) - Z_{-J}^E + \bar{R}) + k\gamma |Z_{-J}^E - Z_v^*(e)| = \frac{\theta}{\gamma}$$

$$(22) \quad I_{NE} - k\gamma \frac{(Z_{-J}^{NE} - Z_v^*(e))}{|Z_{-J}^{NE} - Z_v^*(e)|} (Z_v^*(e) - Z_{-J}^{NE} + \bar{R}) + k\gamma |Z_{-J}^{NE} - Z_v^*(e)| = \frac{\theta}{\gamma}$$

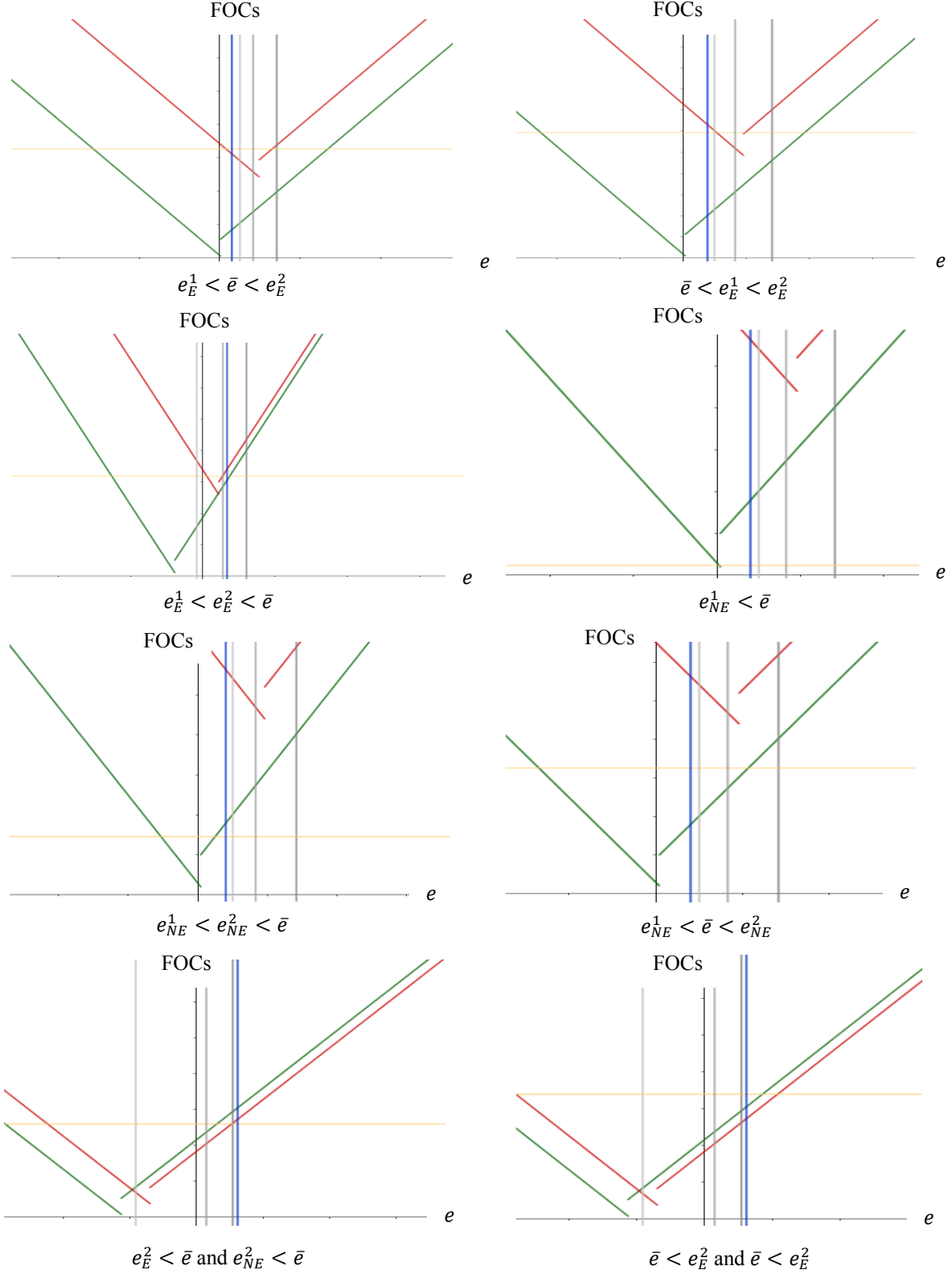
where  $k = \Omega \left[ \frac{\lambda_2 \phi_2}{\sum_{G=1}^2 \lambda_G \phi_G} \right]$  and  $I_{NE} = \frac{1}{2} - \sum_{G=1}^2 \lambda_G b_G * x$ , with  $x = 1$  if the leader proposes the contract to  $J = A$  and  $x = -1$  if he proposes to candidate  $J = B$ . Also,  $I_E = I_{NE} + kh$ . The marginal benefice “ $MB$ ” and the marginal cost “ $MC$ ” are represented in the left part and the right part of (21) and (22).

In figure 3, the grey lines represent the reference thresholds  $e_1$ ,  $e_2$  and  $e_3$  defined in step 3, where  $e_1 < e_2 < e_3$ . Leader indifference threshold  $\bar{e}$  is inferior to  $e_3$  when  $G'(e) > 0$ .<sup>19</sup> It is maximum when  $Z_{-J}^{NE} < Z_{-J}^E < Z_v^*(\bar{e})$ , as  $\bar{e} \rightarrow e_3$  for all  $\bar{e} \in [e_2, e_3]$ . That is when  $\bar{e}$  is at  $MB$  increasing side for the equilibriums with and without leader endorsement. The other possible values of  $\bar{e}$  when  $G'(e) > 0$  happens when  $Z_{-J}^{NE} < Z_v^*(\bar{e}) < Z_{-J}^E$ . In these cases,  $\bar{e}$  is on the decreasing side of  $MB$  for the equilibrium with leader endorsement and on the increasing side of  $MB$  for the equilibrium without leader endorsement. In contrast,  $\bar{e}$  is superior to  $e_3$  when  $G'(e) < 0$ . It is minimum when  $Z_{-J}^{NE} \leq Z_{-J}^E < Z_v^*(\bar{e})$  since  $\bar{e}$  reaches its minimum when  $\bar{e} \rightarrow e_3$  for all  $\bar{e} \in \langle e_3, 1 \rangle$ .<sup>20</sup> Namely,  $\bar{e}$  is at  $MB$  increasing side for the equilibriums with and without leader endorsement.

<sup>19</sup> In step 3, I determined the threshold  $e_3$  that equalizes  $Z_{-J}^{NE} = Z_{-J}^E$ .

<sup>20</sup> See Lemma 2.

**Figure 3: Equilibriums with and without leader endorsement**



Note: In each graph, the blue line is the leader indifference threshold “ $\bar{e}$ ”, the yellow line is the MC, the set of red lines is the MB with leader endorsement and the set of green lines is the MB without leader endorsement. The first six cases illustrate the possible solution when  $G'(e) > 0$  and the last two when  $G'(e) < 0$ . The intersection between the MC and MB gives the solutions  $e_E^1$  and  $e_E^2$  when the leader endorses a candidate and the solutions  $e_{NE}^1$  and  $e_{NE}^2$  when the leader does not.

**Lemma 3:** Assume that Assumption (8) holds and  $MB_i$  intercepts  $MC_i$  for  $i \in \{E, NE\}$ . Then

(I) If  $G'(e) > 0$ , there exists a unique equilibrium  $e_i^*$  such that

(1)  $e_E^* = \bar{e}$ , when  $e_E^1 < \bar{e} < e_E^2$  if  $\bar{e} \in \langle 0, e_2 \rangle$  and  $\underline{\lambda}_2 < \lambda_2 \leq \underline{\lambda}_{21}^*$ .

(2)  $e_E^* = e_E^1$ , when  $\bar{e} < e_E^1 < e_E^2$  if  $\bar{e} \in \langle 0, e_2 \rangle$  and  $\underline{\lambda}_2 < \lambda_2 \leq \underline{\lambda}_{22}^*$ .

(3)  $e_E^* = 1$ , when

(i)  $e_E^1 < \bar{e} < e_E^2$  if  $\bar{e} \in \langle 0, e_2 \rangle$  and  $\lambda_2 > \underline{\lambda}_{21}^*$ .

(ii)  $\bar{e} < e_E^1 < e_E^2$  if  $\bar{e} \in \langle 0, e_2 \rangle$  and  $\lambda_2 > \underline{\lambda}_{22}^*$ .

(iii)  $e_E^1 < \bar{e}$  or  $e_E^1 < e_E^2 < \bar{e}$  when  $\bar{e} \in [e_2, e_3]$ .

(4)  $e_{NE}^* = \bar{e}$  either when  $e_{NE}^1 < \bar{e}$  or when  $e_{NE}^1 < e_{NE}^2 < \bar{e}$  if  $\bar{e} \in \langle 0, e_2 \rangle$  and  $\lambda_2 > \underline{\lambda}_{23}^*$ .

(5)  $e_{NE}^* = 0$ , when

(i)  $e_{NE}^1 < e_{NE}^2 < \bar{e}$  if  $\bar{e} \in \langle 0, e_2 \rangle$  and  $\lambda_2 \leq \underline{\lambda}_{23}^*$ .

(ii)  $e_{NE}^1 < \bar{e} < e_{NE}^2$ .

(II) If  $G'(e) < 0$ , there exists a unique equilibrium  $e_i^*$  such that

(1)  $e_E^* = \bar{e}$ , when  $e_E^2 < \bar{e}$  and  $\lambda_2 > \underline{\lambda}_{24}^*$ . Otherwise  $e_E^* = 0$ .

(2)  $e_{NE}^* = \bar{e}$ , when  $\bar{e} < e_{NE}^2$  and  $\underline{\lambda}_2 < \lambda_2 < \underline{\lambda}_{25}^*$ . Otherwise  $e_{NE}^* = 1$ .

Lemma 3 shows that the leader's decision on which mechanisms to implement to influence the behaviour of club voters (socialisation, endorsement or both) depends on the characteristics of the club. In (I) when the divergence for the flexible policy between the club leader and members is high enough, and  $\frac{\theta}{\gamma}$  is high enough to intercept the  $MB_E$ , the best strategy for the club leader is to implement a socialisation level of  $e_E^*$  with endorsement. Then there is an interior solution  $e_E^*$  when the club population " $\lambda_2$ " is high enough, as in (1) and (2). In (3), as the  $\frac{\theta}{\gamma}$  decreases, the club population size increases and the divergence for the flexible policy decreases, then a corner solution of  $e_E^* = 1$  with endorsement is found. An equilibrium of leader socialisation without endorsement,  $e_{NE}^*$ , is achieved when the divergence between the leader and the club members for the flexible policy is high enough and when  $\frac{\theta}{\gamma}$  is high enough to intercept the  $MB_{NE}$ . In (4), when the club population is high enough ( $\lambda_2 > \underline{\lambda}_{23}^*$ ), an interior solution is obtained. Otherwise, in (5), when the club population is low enough to influence politics through their vote, the leader prefers neither to implement socialisation nor endorsement to influence politics,  $e_{NE}^* = 0$ .

As seen in Lemma 2, (II) occurs when the convergence of preferences between the leader and the club members and the club population is high enough. In (I), there is an interior solution  $e_E^* = \bar{e}$  when the club population “ $\lambda_2 > \underline{\lambda}_{24}^*$ ” is high enough and  $\frac{\theta}{\gamma}$  is sufficiently high to intercept the  $MB_E$  between 0 and  $\bar{e}$ . If not, the leader prefers not to influence club voters through socialisation or endorsement, as the club population is not large enough to decide policies in the country. In (2), as  $\frac{\theta}{\gamma}$  increases such that it intercepts  $MB_{NE}$  between  $\bar{e}$  and 1, the optimal level of socialisation capacity increases such that its effect on the club’s voter preferences is high enough to influence policies. Therefore, leader socialisation is the most effective mechanism to influence club voters’ preferences. There is an interior solution  $e_{NE}^* = \bar{e}$  when  $\underline{\lambda}_2 < \lambda_2 < \underline{\lambda}_{25}^*$ . Then as the club population increases for  $\lambda_2 \geq \underline{\lambda}_{25}^*$ , a corner solution  $e_{NE}^* = 1$  without endorsement results.

In sum, in societies with a sufficiently high divergence of preferences between club members and their leader, and club population size is large enough, leader endorsement is an effective mechanism to influence club voters as it is less costly than leader socialisation. Therefore, the leader prefers to implement socialisation and endorsement to influence policies. On the contrary, in societies with sufficiently high convergence of preferences between the club leader and members and the club population size is large enough, socialisation is the leader’s preferred mechanism, as its cost is lower as the convergence of preferences increases.

**Proposition 4:** Assume that Assumptions (1)-(2), (7)-(8) and  $e \neq \{0,1\}$  hold.

- (1). Under Lemma 3 (I) (1)-(2) and Lemma 3 (II) (1), there is an electoral equilibrium with leader endorsement if  $\lambda_2 \phi_2 \{\gamma |Z_{-j}^E - Z_v^*(e_E^*)| + h\} \geq |-\sum_{G=1}^2 \lambda_G b_G|$  resulting in
  - (i).  $P_j = (v_j, Z_v^*(e_E^*))$  and  $P_{-j} = (v_{-j}, Z_{-j}^E)$ .
  - (ii). If the leader prefers candidate A, then  $C_A = 1$ ,  $\varepsilon_j^* = 1$  and  $p_A(e_E^*, 1) > p_B(e_E^*, 1)$ .
  - (iii). If the leader prefers candidate B, then  $C_B = 1$ ,  $\varepsilon_j^* = 1$  and  $p_B(e_E^*, 1) > p_A(e_E^*, 1)$ .
- (2). Under Lemma 3 (I) (4) and Lemma 3 (II) (2), there is an electoral equilibrium without leader endorsement if  $\lambda_2 \phi_2 \gamma |Z_{-j}^{NE} - Z_v^*(e_{NE}^*)| \geq |-\sum_{G=1}^2 \lambda_G b_G|$  resulting in
  - (i).  $P_j = (v_j, Z_v^*(e_{NE}^*))$  and  $P_{-j} = (v_{-j}, Z_{-j}^{NE})$ .
  - (ii). If the leader prefers candidate A, then  $C_A = 1$ ,  $\varepsilon_j^* = 0$  and  $p_A(e_{NE}^*, 0) > p_B(e_{NE}^*, 0)$ .

(iii). If the leader prefers candidate  $B$ , then  $C_B = 1$ ,  $\varepsilon_j^* = 0$  and  $p_B(e_{NE}^*, 0) > p_A(e_{NE}^*, 0)$ .

(3). Otherwise, for all  $e_i^*$  such that  $i \in \{E, NE\}$

(i).  $P_J = (v_J, Z_v^*(e_i^*))$  and  $P_{-J} = (v_{-J}, Z_{-J}^i)$ .

(ii). If  $-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{\gamma |Z_B^* - Z_v^*(e_i^*)| + h\varepsilon_j^*\} > 0$ , then  $C_A = 1$  and  $p_A(e_i^*, \varepsilon_j^*) > p_B(e_i^*, \varepsilon_j^*)$ .

(iii). If  $\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{\gamma |Z_A^* - Z_v^*(e_i^*)| + h\varepsilon_j^*\} > 0$ , then  $C_B = 1$  and  $p_B(e_i^*, \varepsilon_j^*) > p_A(e_i^*, \varepsilon_j^*)$ .

The idea is that the leader is motivated to behave strategically and proposes the contract to the candidate with the highest probability of winning, considering his optimal socialisation capacity,  $e_i^*$ , and the other parameters that characterise the society in which they live. It is because the leader's utility depends on the winning probability of the candidate to whom he proposes the contract. First, the leader prefers a policy platform  $P_J = (v_J, Z_v^*(e_i^*))$  to  $P_{-J} = (v_{-J}, Z_{-J}^i)$  because its utility is higher when candidate  $J$  wins the election. Second, the leader will get  $f(e_i^*)$  in the future if the candidate to whom he proposes the contract wins the election. Then the leader decision rule depends on the effect of the mechanisms implemented by the leader to influence the preferences of the club voters versus the effect of the population-weighted bias towards candidate  $J$ 's fixed policy on candidate  $J$ 's probability of winning. The **socialisation effect** " $\lambda_2 \phi_2 \gamma |Z_{-J}^i - Z_v^*(e_i^*)|$ " is the effect of the leader's socialisation capacity on the candidate  $J$ 's probability of winning. The **endorsement effect** " $\lambda_2 \phi_2 h\varepsilon_j^*$ " is the effect of the leader's endorsement on candidate  $J$ 's probability of winning. The **ideological effect** " $\sum_{G=1}^2 \lambda_G b_G * x$ " is the effect of the population-weighted bias for candidate  $J$ 's fixed policy on candidate  $J$ 's probability of winning. Namely, if the sum of the socialisation effect and the endorsement effect is greater than the ideological effect, the leader proposes his contract to his preferred candidate.<sup>21</sup> Otherwise, the leader proposes the contract to the politician representing the party towards which the population has the highest weighted ideological bias.

In this model, the leader has all the information necessary to determine the best mechanisms to influence club voters' preferences and to strategically propose the contract to the candidate with the highest probability of being elected. As a result,  $p_J(e_i^*, \varepsilon_j^*) > p_{-J}(e_i^*, \varepsilon_j^*)$  for  $i =$

<sup>21</sup> In the case of equilibrium without leader endorsement effect is equal to 0, as  $\varepsilon_j = 0$ .

$\{E, NE\}$ . Therefore, as  $p_J(e_i^*, \varepsilon_j^*)$  increases, the probability that the electoral outcome is  $P_J = (v_J, Z_v^*(e_i^*))$  increases, and thus the probability that the leader influences electoral and political outcomes increases.

## Comparative Statics

To see how the model parameters affect the level of socialisation capacity of the leader. I derive the following comparative statics from the FOCs (21)-(22).

### Proposition 5:

- (a) *As the taste for the flexible policy ( $\gamma$ ) and the marginal effect of leader endorsement ( $h$ ) increase, the leader increases  $e^*$ .*
- (b) *The less subject to popularity shocks ( $\delta$ ) the entire population is, the more the leader increases  $e^*$ .*
- (c) *The less subject to ideological bias ( $v^{i,G}$ ) the club population is, the more the leader increases  $e^*$ .*

Using the second-order condition,

$$(a) \quad \frac{de^*}{d\gamma} > 0 \quad \text{and} \quad \frac{de^*}{dh} > 0$$

$$\text{sign} \frac{de^*}{d\gamma} = \text{sign} \left[ \frac{\partial \left( \frac{\partial p_J}{\partial e} \right)}{\partial \gamma} \{ \gamma [Z_v^*(e) - Z_{-J}^*] + \bar{R} \} + p_J \Delta Z + \frac{\partial p_J}{\partial \gamma} \right] > 0$$

$$\text{where } \frac{\partial p_J}{\partial e} = - \frac{\Omega \lambda_2 \phi_2}{\sum_{G=1}^2 \lambda_G \phi_G} \gamma \Delta Z \frac{(Z_{-J}^* - Z_v^*(e^*))}{|Z_{-J}^* - Z_v^*(e^*)|}.$$

Re-writing the FOC as

$$(23) \quad - \frac{\Omega \lambda_2 \phi_2}{\sum_{G=1}^2 \lambda_G \phi_G} \gamma \Delta Z \frac{(Z_{-J}^* - Z_v^*(e^*))}{|Z_{-J}^* - Z_v^*(e^*)|} \{ \gamma [Z_v^*(e_i^*) - Z_{-J}^*] + \bar{R} \} = \theta \Delta Z - p_J \gamma \Delta Z.$$

Substituting it into the above equation and simplifying

$$\text{sign} \frac{de^*}{d\gamma} = \text{sign} \left[ \frac{\Omega \lambda_2 \phi_2}{\sum_{G=1}^2 \lambda_G \phi_G} \gamma \Delta Z \left\{ |Z_{-J} - Z_v^*(e^*)| + \frac{(Z_v^*(e^*) - Z_{-J}^*)^2}{|Z_{-J} - Z_v^*(e^*)|} \right\} + \frac{\theta}{\gamma} \Delta Z \right] > 0.$$

$$\text{sign} \frac{de^*}{dh} = -\text{sign} \frac{\partial p_J}{\partial h} \gamma \Delta Z = \text{sign} \frac{\Omega \lambda_2 \phi_2}{\sum_{G=1}^2 \lambda_G \phi_G} \gamma \Delta Z > 0.$$

$$(b) \quad \frac{de^*}{d\Omega} > 0$$

$$\text{sign} \frac{de^*}{d\Omega} = \text{sign} \left[ \frac{\partial \left( \frac{\partial p_J}{\partial e} \right)}{\partial \Omega} \{ \gamma [Z_v^*(e^*) - Z_{-J}^*] + \bar{R} \} + \frac{\partial p_J}{\partial \Omega} \gamma \Delta Z \right] > 0.$$

After some simplification and substituting (23) into  $\frac{de^*}{d\Omega}$

$$\text{sign} \frac{de^*}{d\Omega} = \text{sign} \left[ \frac{\gamma \Delta Z}{\Omega} \left( \frac{\theta}{\gamma} - \frac{1}{2} \right) \right] > 0.$$

There are two levels of leader socialisation capacity “ $e_i^*$ ” at which the *MB* equals the *MC*. These levels are  $e_1^i$  and  $e_2^i$ . Then summing the FOC at  $e_1^i$  and  $e_2^i$  gives,

$$(24) \quad \frac{\Omega \lambda_2 \phi_2}{\sum_{G=1}^2 \lambda_G \phi_G} \left[ - \sum_{G=1}^2 \lambda_G b_G * x + \lambda_2 \phi_2 \gamma \{ |Z_{-J}^* - Z_v^*(e_2^i)| + |Z_{-J}^* - Z_v^*(e_1^i)| \} + h \varepsilon_J^* \right] = \frac{\theta}{\gamma} - \frac{1}{2}$$

$\left( \frac{\theta}{\gamma} - \frac{1}{2} \right)$  is always positive given the leader’s strategic behaviour. The leader proposes the contract to candidate  $J$  if and only if  $-\sum_{G=1}^2 \lambda_G b_G * x + \lambda_2 \phi_2 \gamma |Z_{-J}^* - Z_v^*(e_i^*)| + h \varepsilon_J^* > 0$ , for  $i = [E, NE]$ .

$$(c) \quad \frac{de^*}{d\phi_2} > 0$$

$$\text{sign} \frac{de^*}{d\phi_2} = \text{sign} \left[ \frac{\partial \left( \frac{\partial p_J}{\partial e} \right)}{\partial \phi_2} \{ \gamma [Z_v^*(e^*) - Z_{-J}^*] + \bar{R} \} + \frac{\partial p_J}{\partial \phi_2} \gamma \Delta Z \right] > 0$$

By simplifying and substituting (23) and (24) into  $\frac{de^*}{d\phi_2}$

$$\frac{de^*}{d\phi_2} = \frac{\Omega\lambda_2\gamma\Delta Z}{(\sum_{G=1}^2 \lambda_G \phi_G)^2} \left\{ \sum_{G=1}^2 \lambda_G b_G * x + \lambda_1 \phi_1 \{ \gamma [|Z_{-J}^* - Z_v^*(e_1^i)| + |Z_{-J}^* - Z_v^*(e_2^i)|] + h\varepsilon_J^* \} \right\} > 0$$

where  $\frac{\partial p_J}{\partial \phi_2} = \frac{\Omega\lambda_2}{(\sum_{G=1}^2 \lambda_G \phi_G)^2} [\sum_{G=1}^2 \lambda_G b_G * x + \lambda_1 \phi_1 \{ \gamma |Z_{-J}^* - Z_v^*(e^*)| + h\varepsilon_J^* \}] > 0$ . This term is always positive given the leader's strategic behaviour. In general, there are two effects of higher  $\phi_2$ . First, higher  $\phi_2$  increases the marginal effect of  $e$  on  $p_J$ , which reduces  $e$ . Second, ceteris paribus, higher  $\phi_2$  increases candidate  $J$ 's probability of winning. This increases the marginal benefit from investing in socialisation, leading to a higher  $e$ . However, using (23) and (24), it is shown that the second effect dominates.

## 1.4. Benchmarking the models

In this section, the models are compared to see how the introduction of leader mechanisms affects the convergence of the political platforms. Notice that in models 1.3.1 and 1.3.2, the information asymmetry came from voters' uncertainty about the candidates' popularity. In the former, there is convergence on the flexible part of the candidates' policy platforms, so the candidates' probability of winning depends entirely on the ideological effect. In the latter, the leader's endorsement of a candidate increases the candidate's popularity within the club. Therefore, candidates' probability of winning depends on the net effect of the endorsement effect and the ideological effect. If the endorsement effect is greater than the ideological effect, then the endorsed candidate is the one with the highest probability of winning. If the contrary is true, the ideological effect will determine which candidate has the highest probability of winning. In these models, candidates announce political platforms, in which they announce different fixed policies and the same flexible policies.<sup>22</sup>

In model 1.3.3, the incorporation of the leader's socialisation capacity generated divergence in the candidates' flexible policy due to the unobservability of the leader's socialisation capacity. The divergence appears when the club leader approaches one of the candidates with a contract in which he discloses information about " $e$ ". It generates information asymmetry

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<sup>22</sup> In both models, the candidates have perfect information about the preferences of the club members.



between candidates. In model 1.3.4, the information asymmetry becomes smaller with the introduction of endorsement as a complementary. It is because the non-approached candidate is aware of the existence of a contract, but he does not know “ $e$ ”. The leader’s endorsement decision gives him information about the possible level of the leader’s socialisation capacity. Then the platforms will take the following paths.

**Proposition 6:** (1) *If the leader is not a socialising agent, then there is policy convergence in the flexible policy between candidates.* (2) *If the leader is a socialising agent such that: (a) If socialisation is the only mechanism, then there is a divergence in candidates’ policy platforms. (b) If leader endorsement is a complementary mechanism, then the divergence in candidates’ political platforms is less than in (a).*

Not surprisingly, in a perfect information scenario about the club members’ preferences for the flexible policy, the candidates will converge on it. Therefore, there is convergence in the flexible policy announced by each candidate in models 1.3.1 and 1.3.2 ( $P_J^* = P_J^* | \varepsilon_J = (v_J^*, Z_v^*)$ ). However, in each model, there is divergence in the fixed policy between candidates “ $|v_A^* - v_B^*| \neq 0$ ”.

The introduction of information asymmetry about the preference of the club members, represented by the leader’s socialisation capacity “ $e$ ” in the model, generates a divergence in the flexible policy announced by candidates in model 1.3.3 compared to the first models. As candidate  $J$  has all the information, he announces  $P_J^* = (v_J^*, Z_v^*(e^*))$ , and his contender announces  $P_{-J}^* = (v_J^*, Z_v^*)$ . Here, the divergences in the flexible policies depend entirely on the leader’s socialisation capacity, as  $|Z_J^* - Z_{-J}^*| = e^* \Delta Z$ . From model 1.3.3,  $e^* = \frac{\frac{\theta}{\gamma} - (\frac{1}{2} + a)}{2k\gamma\Delta Z}$ .

As the model evolves and opens to the possibility of leader endorsement, as a complementary mechanism, leader endorsement reduces the information asymmetry between candidates. Therefore, the divergence in candidates’ policy platforms is smaller than in (a). The divergence

$$\text{is } |Z_J^* - Z_{-J}^*| = |Z_v^*(e^*) - Z_{-J}^E| = \frac{\frac{\theta}{\gamma} - (\frac{1}{2} + a) - kh}{2k\gamma}.^{23}$$

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<sup>23</sup> In model 1.3.4, from the FOC (equation 21), the interior solution  $\tilde{e}_E^{1*} = \frac{Z_{-J}^E - Z_v^*}{\Delta Z} - \left( \frac{\frac{\theta}{\gamma} - (\frac{1}{2} + a) - kh}{k\gamma\Delta Z} \right)$  is obtained.

## 1.5. Club Leaders influencing politics

This section illustrates the importance of religious leaders in politics around the world. Not only do they influence the policies of their countries, but in some cases, they also seem to define who will run the country. The influence of religious leaders depends on the characteristics of religious groups and the factors that facilitate group socialisation and endorsement. The following conditions facilitate the use of both mechanisms, socialisation and endorsement by religious leaders. (i) The preferences to which individuals are socialised are derived from theological or ideological principles. (ii) The leader has authority over club members. (iii) The group's organisational structure and networks increase the contact of individuals within it. The parameters affecting the leader's influence are club size, taste for club goods, and group cohesiveness on policies affecting the club goods provision, among others.

The Australian case best represents the use of religious leader socialisation to influence politics. The Catholic vote shift from one party's political candidate to another influenced policies and elections in different election years. Catholic church leaders do not directly endorse any political candidate during election periods since the Code of the Canon Law forbids them to do so.

The last two cases illustrate the religious leaders' use of socialisation and endorsement mechanisms to influence politics. Policies and electoral results are consistent with our analysis. The particularity of the Latin American case is that some evangelical religious leaders are also candidates in local elections. By contrast, in the Democratic Islam case, the leaders of the religious movements had never tried to compete in elections. The population of these regions believe that religious leaders should influence politics.<sup>24</sup> In Latin America, 90.9% of the population is Christian, and almost half of the population (49%) thinks that religious leaders should have a large (18.4%) or some (30.6%) influence in political matters. In the Islamic region, 79.6% of the population is Muslim, and more than half of the population (63.4%) say that religious leaders should have a large (27.5%) or some (35.9%) influence on political matters.

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<sup>24</sup> These statistics were constructed multiplying the answer to the question "How much influence should a religious leader have in political matters" by the weighted average population of each country in the region. Data on the influence of religious leaders are from the Pew Research Center (2013, 2014) for the Latin American and the Islamic Region. For the Islamic Region, Iranian data on the importance of religious leaders' influence on politics was aggregated from Pew Research Center's (2013) pooled data. The weighted average and the population by religion by country were constructed with the data from Pew Research Center (2012).

### **1.5.1. Australian Political Scene 1992-2007**

Religion has been regarded as one of the major social cleavages in Australia. Historically, Catholics preferred the Australian Labor party while Anglicans, other Protestants and other religions preferred the Liberal and National coalition parties. The number of people with no religion has increased over time and they tend to favour the Labor party (Bean, 1999). Traditionally, Anglicans were the largest religious denomination in Australia until 1986, when the Catholic denomination overtook them. From 1996 to 2006, the share of Protestants decreased from 41.1% to 35.4%, the share of members of other religions increased from 3.5% to 5.6%, the share of Catholics decreased from 27% to 25.8% and the share of people without religion increased from 16.6% to 18.7%.<sup>25</sup> In the elections of 1996, 1998, 2001 and 2004, Protestants continued to prefer the Liberal-National coalition and those with no religion, the Labour Party. However, the Catholic vote shifted to the Liberal-National coalition playing a major role in those elections (Warhurst, 2007). Some possible reasons why the Catholics abandoned their alliance with the Labor Party are as follows. 1) The increase in Catholic membership in the Liberal-National coalition increased the possibility of internal negotiation with Catholic leaders. 2) The conservative-moral political agenda of the coalition was in line with the moral values in which Catholics are well-socialised. 3) The change of Coalition's leadership for a leader more aligned with Christian values. In the 2007 election, the Catholic vote shifted again, but this time toward his old partner, the Labor Party.

In the election years from 1996 to 2007, the shift of the Catholic vote has been consistent with the leader's strategic behaviour and with the influence of religious leaders in the flexible policies and electoral outcomes (Propositions 3 and 4). The Catholic vote supported the most popular candidates; Howard, the leader of the Liberal-National coalition, in 1996 and Kevin Rudd, the leader of the Labor party in 2007. In the 1998, 2001 and 2004 election years, the Catholic vote favoured Howard, although in 1998 and 2001 Kim Beazley, Howard's contender, was the most popular. As suggested by Proposition 4 (2), when the socialisation effect is greater than the ideological effect, the leader's strategic behaviour will lead him to support his preferred candidate. Indeed, Howard was not the most popular candidate in 1998 and 2001, but he was the preferred candidate of Catholic leaders from 1996 to 2004, as Howard's views on socio-moral issues were in line with those of Christian doctrine. During the political campaigns, the influence of religious leaders over policies was evident. For example, the suppression of the

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<sup>25</sup> Data retrieved from ABS data available on request Census of Population and Housing 1996 and 2006. Protestants are composed of Anglican, Uniting Church, Presbyterian & Reformed Churches and other Protestants.

*Good and Service Tax (GST)* of the platform of the Liberal-National coalition in 1996 and the promotion of other policies against euthanasia, the abortion pill, research involving embryos, and same-sex marriage. Through socialisation, religious leaders influence the voting behaviour of their members. It happened between 1996 and 2006 when church leaders supported the Howard government on issues of social morality. In the 1996 election, Coalition led Labor among Catholics, 47% to 37% (Robb, 1996). This path continued in the 2001 and 2004 elections. The Coalition led Labour, 45% to 42% in 2001 (Bean & McAllister, 2002, p. 275) and 50% to 41% in 2004 (Bean & McAllister, 2005, p. 323-324). In 2007, church leaders labelled the *WorkChoices* legislation proposed by the Liberal-National coalition as immoral; the Catholic vote shifted, favouring Labor. Labor (48%) led Coalition (42%) among Catholics. During those election years, there was some evidence of divergence in the announced political platform of the two major parties of Australia, highlighting that socialisation increases platform divergences as stated by Proposition 6. As an illustration, in the 1998 federal election, the Liberal-National coalition introduced a GST of 10% - with improved distribution qualities - which the Labor party opposed (Brown, 1999).<sup>26</sup> In 2006, the Liberal-National coalition passed the *WorkChoices* bill generating public concern. The following year, in the 2007 election, the *WorkChoices* bill was the policy issue on which the Liber-National coalition and the Labor Party diverged.<sup>27</sup>

The influence of Christian religious leaders in politics began in 1992 with the formation of a group called Lyons Forum within the Liberal Party. It was composed of right-wing Christians of different denominations and had two main characteristics.<sup>28</sup> It defended traditional family values and had a conservative moral agenda.<sup>29</sup> This group had an interesting way of winning approval for its policy proposition between the general electorate and the members of the parliament. They used the language of “family” to promote their political agenda so that

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<sup>26</sup> The GST introduced in 1998 was modified from the one proposed in 1993, in the face of pressure from interest groups who called it unfair. Few goods and services were excluded (health, education and child care, and charitable services but not food) and the main income tax cuts were targeted at middle and low-income earners, as it was an expansion of income tax brackets.

<sup>27</sup> The most important part of the Labor party’s platform was to repeal the *WorkChoices* legislation (Wanna, 2010).

<sup>28</sup> The founders of the Lyons Forum were Senators Herron, Tierney and members of the House of Representatives Alan Cadman, John Bradford, Chris Miles, Kevin Andrews and John Forrest. Herron is a recognised Catholic. Tierney describes himself as an active lay Anglican. Cadman has been a member of the Parliamentary Christian Fellowship since 1980 and was a prominent member of Sydney’s Hillsong Church; until his 1998 defeat. Chris Miles is a Baptist lay preacher. Bradford served on the Parliamentary Christian Fellowship executive, making headlines when he left the Liberal Party to become the only Christian Democrat in the federal parliament. Andrews is an active lay Catholic. Forrest chaired the Parliamentary Christian Fellowship at the time (Maddox, 2005, p. 39).

<sup>29</sup> During the first and second Howard governments, before some of its members were defeated, promoted or left the party, the Lyons Forum actively pursued family-friendly policies (Warhurst, 2007, p. 23).

conservative Christian voters recognised the appeal to stay on their side. At the same time, the uncertainty about the religious identity of the Lyon Forum and the effort of its spokespersons to avoid much more explicit religious language so as not to alienate the secular constituency.

The Lyon Forum's influence on Australian politics began in 1994, with the push for leadership change in the Coalition Party, at which time Coalition leader John Hewson's *Fightback!* program began to be criticised by various church leaders (Warhurst et al., 2000, p. 171-173). The tension increased when Hewson decided to send a message of support to the 1994 Sydney Gay and Lesbian Mardi Gras. Three members of the Lyons Forum - Miles, Cadman and Bradford - started the destabilization campaign against Hewson.<sup>30</sup> In May 1994, Alexander Downer replaced Hewson as the Leader of the Coalition. Downer, initially, attracted high levels of public support, but after a few months, this quickly went down. In January 1995, he resigned as leader of the Liberal Party and John Howard was elected unopposed to replace him. The Lyon Forum's actions reportedly led to Howard's rise as leader of the Coalition (Maddox, 2005, p. 38-51).

The Lyon Forum also appears to have helped Howard gain indirect support from the Christian church of different denominations in the 1996 elections. For instance, in the pre-Howard government (1992-93), the churches were leading strong critics in opposition to the leader of the Liberal party, especially in the introduction of the *Good and Service Tax (GST)* on food and essential services. In the 1995 electoral campaign, Howard ensured that *GST would never* be part of the coalition policies (Maddox, 2005, p. 228). In the same year, the Lyons Forum got increasing media attention with its submission to the Liberal Party executive on tax. It represented an advantage to the conformed families (based on a conservative and narrow Christian definition of family). It included abandoning no-fault divorce, withholding benefits from dysfunctional families and single mothers, and income splitting to give single-income two-parent families a tax edge (Maddox, 2005, p. 74).

In the first period of the Howard government (1996-1998), the influence of the Lyons Forum became more visible. Its earliest achievements were the following. 1) Family Tax Package in 1996 (Savva, 1997) and the introduction of the *Euthanasia Law Bill*, which overturned the Northern Territory's *Rights of the Terminally Ill Act 1995* on 24 March 1997.<sup>31</sup> 2) The April

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<sup>30</sup> The controversy about the Mardi Gras did not create Hewson's downfall. It attracted attention to the differences between Hewson and Howard over immigration, family policies and income splitting (Maddox, 2005, p. 30-31, 46).

<sup>31</sup> On 9 September 1996, Kevin Andrews, founder of the Lyon Forum, introduced the *Euthanasia Law Bill*. Both parties in the Federal Parliament gave their members a free vote called a conscience vote. With a Coalition party holding the majority of seats in parliament and a Lyon Forum, with influence in the Senate, favouring this bill, the Senate passed the euthanasia bill in 1997.

1997 Cabinet decision to tighten restrictions on pornographic videos by replacing the X-rating with NVE (non-violent erotica) (Maddox, 2005, p. 49-70). 3) Be the driving force to modify the *Sex Discrimination Act* in 1997, which excluded single women and lesbians from access to fertility services (Maddox, 2002, p. 19). Church leaders supported these policies promoted by the Lyons Forum (Warhurst, 2007, p. 25; Warhurst, 2008, p. 220-223).

From 1996 to 2006, the church supported the Howard government in maintaining the status quo in areas of social morality while criticising its social and foreign policies.<sup>32</sup> Catholics were extraordinarily diverse in their views about policies, such as *GST*, industrial relations or participation in the Iraq War. Nevertheless, they were more united in policies behind some moral issues, such as euthanasia, abortion, same-sex marriage or embryonic stem cell research (Warhurst, 2008; Smith, 2009).<sup>33</sup>

In the 2007 election, the Catholic church acted as a unity, and none of its leaders supported the Coalition on the *WorkChoices* legislation.<sup>34</sup> The Australian Catholic Social Justice Council (ACSJ) called parts of the *WorkChoices* legislation immoral for the way it treats those at the bottom rungs of the employment ladder.<sup>35</sup> That year, the NCCA wrote its 2007 Election Briefing Kit to ensure that social justice is not overlooked.<sup>36</sup> The NCCA's negative commentaries on *WorkChoices* legislation moved votes away from the Coalition, as these had serious repercussions on family and community life (Smith, 2009). The Coalition party still held the majority of the Protestant vote but lost the share of the Catholic vote it had won in the 1996-2004 period. In the 2007's elections, Labor led the Coalition among Catholics, 48% to 42% (Bean and McAllister, 2009, p. 208). The policy issues with the greatest impact on voting

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<sup>32</sup> In 2006, the Catholic Church campaigned for "Euthanasia No!" and, in 2006, "Australians Against the Abortion Pill (RU486)", both bills were introduced by Coalition members. In 2002 was a Catholic opposition to stem cell research (research involving embryos) and in 2004 to the same-sex-marriage (Warhurst, 2008). The Coalition in the Marriage Amendment bill 2004 sought to amend the Marriage Act 1961 to define marriage as a union of a man and a woman; and clarify that same-sex marriages entered into under the law of another country will not be recognised in Australia (McKeown, 2017). Catholic churches objected to the Howard government in the following policies: GST (1998 elections), Native title legislation, Refugees and asylum seekers (2001 elections), participation in the Iraq War (2004 elections) and the industrial relation reform (2007 elections) (Maddox, 2005; Warhurst, 2007).

<sup>33</sup> These moral issues are very present in the teaching of Catholic religious doctrine.

<sup>34</sup> In the 1998 and 2004 elections, Catholic leaders had divided views on the Coalition's proposed policies. For instance, some Catholic leaders criticised the Coalition's policy on the GST (1998) and education (2004), but, on both occasions, Catholic Archbishop Pell publicly disagreed with his colleagues who favoured the Coalition Party (Warhurst, 2008, p. 216).

<sup>35</sup> Alberici (2007).

<sup>36</sup> The Catholic Bishops let know their concerns and draw attention to the environment, indigenous rights, industrial relations and education. The three last issues mentioned were also privileged by the two main protestant denominations and the NCCA. In international issues, such as; refugees, environment, peace-making and disarmament, the Catholic Bishops, the Uniting Church and the NCCA highlight these issues (Smith, 2009). The main Christian affiliation in Australia were Catholics (25.8%), Anglicans (18.7%) and Uniting Church (5.7%). Data retrieved by the 2006 Australian Census.

behaviour were industrial relations, taxes (WorkChoices legislation), and medical & health care.<sup>37</sup> The Labor party won the 2007's election.

### **1.5.2. Latin America: Religious Leaders and Politics**

Latin America is the most Catholic region in the world.<sup>38</sup> This region underwent profound changes in terms of religion and politics. Historically, civil wars and state repression accompanied by the violence of everyday life led religious leaders to incorporate these main issues into religion, which they called institutionalised violence and structural sin, and the search for solutions.<sup>39</sup> In the late 1960s and early 1970s, liberation theology, born within the Catholic church in Latin America, challenged both conservative politics and the traditional Catholic church.<sup>40</sup> The positions that the Catholic bishops at the Latin American Catholic Bishops' Conferences of Medellin (1968) and Puebla (1979) took reflected its ideals. These served as a model of action for the involvement of church-sponsored or church-linked groups and networks in the defence of human rights and democracy. Church leaders and church-sponsored institutions became defenders of democracy, values of justice and human rights in Latin America (Levine, 2009; 2010).<sup>41</sup>

From 2013 to 2014, Pew Research Center (PRC) surveyed 19 countries about the importance of religious leaders in politics, obtaining interesting results. In 15 of those, more than 40% of the population thinks that religious leaders should have some or more influence on politics. The countries that give larger importance (some importance) to the role of religious leaders in politics were Panama 28% (45%), Paraguay 17% (45%), Venezuela 26% (32%), Brazil 20% (35%), Argentina 20% (33%), Peru 17% (33%), Colombia 22% (29%), Dominican Republic 28% (22%), Costa Rica 27% (22%), Guatemala 20% (24%), Chile 13% (31%), Bolivia 14%

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<sup>37</sup> 62 per cent of respondents said they disapproved or strongly disapproved of the changes associated with the WorkChoices legislation. (Bean & McAllister, 2009, p. 215).

<sup>38</sup> See Pew Research Center (2014).

<sup>39</sup> Civil wars in Central America, Peru, and Colombia. State repression in Chile, Brazil, Paraguay, Uruguay and Argentina. Religious members and institutions (radio stations, educational organizations and churches) have been prime targets of violence in El Salvador, Guatemala, Paraguay and Uruguay (Hagopian, 2009; Levine, 2010).

<sup>40</sup> Liberation theology is a progressive ideology with an emphasis on the poor and a commitment to working for social justice (Levine, 1988).

<sup>41</sup> This happens in most Latin American countries: Brazil, Chile, Peru, El Salvador, Ecuador, Panama and Nicaragua. Argentina, Paraguay and Guatemala supported authoritarian regimes. Argentina was the exception with the top of the Catholic Hierarchy collaborating with the military government, even when its human rights abuses. The liberationist currents had been present in Argentina since the 1960s in important religious movements but they were defeated politically and marginalized in the church (Hagopian, 2009; Levine, 2010; Edmonds, 2010).

(28%), El Salvador 22% (20%), Honduras 25% (17%) and Puerto Rico 19% (22%).<sup>42</sup> This highlights the fact that for the population living in these countries, whether religious leaders directly or indirectly support a political candidate or not might influence how they vote.

The restoration of democracy in Latin American countries, the end of civil wars and the increase of Protestant and Pentecostal churches affected the behaviour of the Catholic church.<sup>43</sup> In some countries, Catholic religious leaders have lost or abandoned their political roles, leading to increased political participation by evangelical leaders and activist groups. In democracies, the primary focus of Catholic religious leaders is to defend moral conservatism. Policies favouring abortion, euthanasia and gay marriage are their main target of critics in political elections. It suggests that religious leaders succeed in influencing policy on issues on which Christians are well-socialised, as stated by Proposition 3.<sup>44</sup> Catholic clergy does not participate directly in politics unless it acts in defence of the protection of the church's rights or the promotion of a common good.<sup>45</sup> Therefore, Catholic religious leaders tend to indirectly support (by explicitly rejecting) a political candidate in campaign elections. In contrast, Protestant churches either have some of their religious leader running for office or Congress. Protestant church leaders participate actively in their candidates' election campaigns, endorse their candidates, and the church members vote as a cohesive bloc to have their leaders elected.

### **1.5.2.1. The influence of religious leaders in Brazilian elections**

Brazil is the second largest Cristian country in the world. The discussions of politics between parishioners and clergy are common. The growing proportion of Protestants had led to a further intensification of religion in politics since Evangelical and Pentecostal church leaders and predominant members are candidates in political elections. The 2010 Brazilian census identified

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<sup>42</sup> The statistics were constructed using the data from the Pew Research Center 2014 "Religion in Latin America: Widespread Changes in a Historically Catholic Region" report. Uruguay is the only country where a majority of the population (57%) says that religious leaders should not have any influence on politics.

<sup>43</sup> Church leaders act strategically depending on the Catholic church's degree of hegemony, mobilisation and influence (Hagopian, 2009).

<sup>44</sup> For illustration, only three countries (Cuba, Puerto Rico and Uruguay) out of twenty-one allow abortion without restriction. In six countries, (Chile, Nicaragua, Surinam, Honduras, Dominica Republic and El Salvador) abortion is illegal or not explicitly legal to save a woman's life. In all other countries, abortion is legal only to save a woman's life or in cases of mental health, among which six (Argentina, Brazil, Bolivia, Colombia, Mexico and Panama) legalized abortion in case of rape and two (Bolivia and Colombia) in case of incest (Guttmacher Institute, 2018). Colombia is since 1997, the only Latin American country where Euthanasia is legal for terminally ill patients. Gay marriage is legal in only four Latin American countries; Argentina, Brazil, Colombia and Uruguay and Mexico in some jurisdictions (Pew Research Center, 2019).

<sup>45</sup> Catholic religious leaders are prohibited from holding public office or actively participating in politics within a party.



22.2% of the population as having evangelical and pentecostal faith. According to a representative national survey conducted in December 2019, nine years after the census, 31% of Brazilians are Protestants.<sup>46</sup> Historically, the democratic elections for constituent assemblies had led to the participation of the evangelical and pentecostal clergy in politics. It started before the 1933 constituent assembly, in which a new evangelical party was born, the Sao Paulo Evangelical Civil Union. This party sponsored a Pastor to run for deputy (Campos, 2006). In the latter, the Assembly of God (AG) directly endorsed candidates and won 14 of the 33 seats won by evangelical and pentecostal candidates (Boas, 2013). In 2015, the seats won by evangelical and pentecostal candidates increased to 78 (Chemin, 2016). In the 2019-2023 legislative period, the number of evangelical and pentecostal in Brazil's National Congress increased to 202 deputies and 8 senators.<sup>47</sup>

Some facts suggest Religious leaders influence presidential elections in Brazil. In the 1989 presidential elections' first round, some evangelical church leaders from Brazil for Crist Pentecostal Church and the Universal Church of the Kingdom of God (UCKG) endorsed Fernando Collor. The Assemblies of God did not endorse any candidate but discouraged the vote for candidates associated with atheistic-Marxism ideologies. In the run-off when Lula da Silva came closer to Collor, the UCKG, AG and the Four Square leaders endorsed directly Collor, who won the elections (Freston, 2001).<sup>48</sup> The Evangelical and Protestant church's opposition to Lula continued in the 1994 and 1998 presidential elections. The UCKG leaders endorsed Fernando Cardozo in 1994 and 1998, who emerged victorious in the two elections.<sup>49</sup> In 1998's elections, the UCKG showed its large capacity to influence the vote of its members in comparison to other Evangelical and Pentecostal churches.<sup>50</sup> The strong UCKG campaign against Lula started to change. In 2001, the UCKG was involved in a serious negotiation with the Workers Party (PT) regarding its support for Lula's 2002 presidential campaign (Fonseca,

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<sup>46</sup> This estimate was made by the Datafolha Research Institute in 2019, based on 2,948 interviews conducted in 176 municipalities across the country on 5 and 6 December, margin of error of plus or minus 2 percentage points and a confidence level of 95%.

<sup>47</sup> They compose the cross-party Evangelical Parliamentary Front (Frente Parlamentar Evangélica). Available at: <https://www.Câmara.leg.br/internet/deputado/frenteDetalhe.asp?id=54010>. Accessed: 10 Jul. 2022.

<sup>48</sup> The leader of the UCKG presented Collor as the candidate sent by God and Lula as the presence of the devil himself (Campos, 2002). He also attacked Lula in UCKG media, where he said that Lula had the intention to liberalize laws on abortion and homosexual rights (Freston, 2001).

<sup>49</sup> Bishop Macedo founder of the UCKG accused Lula of being the devil's candidate (Freston, 2001). The UCKG now has a large communications empire (the third largest television network in Brazil, scores of radio stations, and a daily newspaper (Fonseca, 2008).

<sup>50</sup> According to Freston (2001), the UCKG corporate vote is estimated to 70 per cent of its potential. It is larger than the capacity of mobilization of the AG which never mobilized more than 40 per cent of its potential voters. In 2001, the UCKG elected 15 federal deputies and 26 state deputies. It supported 3 federal deputies of other churches that were elected.

2008). UCKG leaders endorsed Lula in 2002.<sup>51</sup> Lula won the elections and became president in 2002 (Oro, 2005; Freston, 2008). In the 2010 presidential election, catholic and evangelical religious leaders campaigned against Dilma and supported Serra. She was accused of being in favour of abortion, satanism, and a Bill of Law criminalizing homophobia, which affected her probability of winning in the first round (Mariano & Oro, 2011).<sup>52</sup> These religious issues became the centrepiece in the 2010 run-off campaign between Rousseff and Serra. In the second week of October, 51 representatives from Evangelical and Pentecostal churches, supportive of the federal government, joined in the coordination of Dilma's campaign and posted a series of demands in exchange for their political support (Mariano & Oro, 2011, p. 621). In a new message, Dilma pledged not to "propose changes to legislation on abortion, nor to other issues related to the family and the free expression of any religion". She also affirmed that, if elected, she would not sponsor "any initiative that endangers the family". Moreover, Dilma guaranteed that she will sign only the articles that do not violate freedom of belief, worship, expression and other basic constitutional guarantees if the bill that criminalizes homophobia is approved.<sup>53</sup> The UCKG founder, Bishop Edir Macedo, and the AG leader Manoel Ferreira (Pastor and former congressman) supported PT candidate Dilma Rousseff in the second round. (Duarte de Souza, 2014). She became Brazil's first woman president in 2010. In the 2018 presidential elections, the influence of religious leaders in politics became more visible. Political speeches using faith or religion have become more frequent. Jair Messias Bolsonaro's campaign slogan was "Brazil above everything; God above everyone". In addition, fake news circulated in evangelical circles on sensitive issues related to religion involving PT candidate Fernando Haddad in the months leading up to the presidential election. In the last weeks of the election campaign, Bosorano was endorsed by; Edir Macedo (UCKG's leader), Silas Malafaia (AG - Victory in Christ leader) and the Evangelical Parliamentary Front (Smith, 2019).<sup>54</sup> The fake news affecting the image of Haddad and the endorsement of religious leaders to Bolsonaro affected voting intention among evangelicals, which was decisive in this election. According to estimates by Alves (2018), the evangelical and pentecostal votes were crucial in Bolsonaro's election as president. The votes

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<sup>51</sup> In the 2002 election, Bishop Rodriguez co-founder of the UCKG, from the start of the alliance with the PT in 2000, and Bishop Garotinho, in the run-off have played important roles as mediators together with other Evangelist churches to obtain support for Lula in 2002 (Oros, 2005).

<sup>52</sup> Ibope surveys showed that, between August 26 and September 23, Evangelicals' intention to vote for Dilma fell from 49% to 42%, and her rejection index jumped from 17% to 28% in this religious segment.

<sup>53</sup> Folha de S. Paulo, October 15, 2010.

<sup>54</sup> UCKG's founder, Edir Macedo, and owner of one of the largest media network in Brazil, endorsed Bolsonaro's candidacy and broadcasted a favourable interview with him on his TV programme. José Wellington Bezerra, president of the AG, the largest protestant congregation, endorsed Bolsonaro (Smith & Lloyd, 2018). Bolsonaro had the support of the Evangelical Parliamentary Front, composed of 199 deputies of diverse party affiliations and 60 per cent of the Evangelical electorate's voting intention for the electoral run-off (Zilla, 2018).

by religion received by Bolsonaro in the run-off were as follows; Catholic votes (50.1%), non-religious votes (43%) and Evangelical and Pentecostal votes (63.8%). However, in the presidential elections of 2006 and 2014, Evangelicals and Pentecostal church leaders did not take clear instances. In the 2006 elections, the influence of evangelical and protestant leaders on their electorate was affected by corruption scandals involving representatives of the AG and the UCKG (Lacerda, 2017). In 2014, the evangelical and protestant vote was split between Dilma Rousseff and Aécio Neves. The leaders of the two main evangelical congregations split their support, with AG's leaders endorsing Aécio and UCKG's leaders endorsing Dilma.

Other facts advocate the importance of religious leaders' endorsement in Brazil. Boas & Smith (2015) conducted a survey experiment two and a half weeks before the 2012 municipal elections in Brazil and found that the information channelled by religious congregations and clergy shaped the voting behaviour of their members. It also happened when the clergy endorsed a candidate or explicitly rejected some candidates. Boas & Smith (2019) study the congruence of public opinion across the following categories Evangelicals, women, Afro-Brazilians, No College, sharing a party or an electoral district on economic and political regime preferences, ideological self-placement, abortion, gay marriage, racism and environment. They found that Evangelicals are more congruent than other demographic groups as a result of the socialisation effort of the churches to socialise masses and elites. Lacerda (2018), using a new dataset of evangelical (Protestant) candidates for the Federal Chamber of Deputies and state legislatures in 2004, found that being a church-sponsored candidate significantly increases their electoral performance.

Furthermore, the large divergence in platforms between the two principal candidates in the Brazilian presidential election of 1989, 1994, 1998 and 2018 is consistent with our theory in which through socialisation and endorsement the divergence between platforms becomes larger. In those election years, religious leaders influenced evangelical and pentecostal members to vote for Fernando Collor de Mello (PNR) in 1989 and Fernando Henrique Cardoso (PSDB) in 1994 and 1998.<sup>55</sup> The contestant in each of those elections was Luiz Inácio Lula da Silva (PT). In 1989, the platform announced by Collor was based on market reform, open trade and investment, deregulation and privatisation (Campello, 2013). Cardoso's 1994 announced platform was focused on the *Plan Real* which followed a neoliberal agenda started by Collor but with economic stabilisation. In 1998, at first, Cardoso's electoral platform was centred on the success of the *Plan Real* and after economic growth (Panizza, 2000; Kinzo and Da Silva,

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<sup>55</sup> The National Reconstruction Party (PRN), the Christian Labour Party (PTC) and the Brazilian Social Democracy Party (PSDB).

1999). During the mentioned three election years, Lula had a platform opposed to a neoliberal agenda. His political platform focused mainly on land reform, income redistribution, renegotiation of the domestic debt and suspension of foreign debt payments (Campello, 2013). At that time, there was no information about the increase of Evangelicals and Pentecostals in the population, the Evangelicals and Pentecostals representatives in Congress came mostly from right or centre-right wing conservative parties and the leaders of the evangelical and pentecostal churches influenced members to vote for a specific candidate.<sup>56</sup> For illustration, the majority of the evangelical deputies were in parties of the right or centre-right as PDC, PFL, PTB and PMDB in 1987 (Melo, 2016).<sup>57</sup> They were part of the evangelical's "new right".<sup>58</sup> Evangelical deputies continued to be concentrated in right or centre-right parties such as PFL, PL, PMDB, PPB and PSL in 1998 (Fonseca, 2008; Lacerda, 2017).<sup>59</sup> Furthermore, evangelical congress members were mostly concentrated in pro-government parties during the legislatures of 1987-1991, 1991-1995 and 1995-1999. In addition, their position on the federal government was pro-government.<sup>60</sup> In 2018, Bolsonaro's (PSL) main campaign issues were security, corruption, abortion, and gender politics. In contrast, Haddad (PT) made economic and social issues the centrepiece of his campaign. He proposed education for all and a tax-and-spend plan to reduce unemployment, strength social and improve infrastructure.

As our theory suggests, electoral and policy outcomes are influenced by religious leaders' socialisation and endorsement in Brazil. The political candidates endorsed by the religious leaders of the main Evangelical and Pentecostal churches won the elections. Namely, UCKG leaders have endorsed Cardoso (in 1989, 1994, 1998), Lula (in 2002, 2006), Rousseff (in 2010, 2014) and Bolsonaro (in 2018). All of those candidates became president in their respective election years. Evangelical and Pentecostal leaders show strategic behaviour and leaders' socialisation and endorsement have larger success given that the network used by the church leaders is well developed. They own one of the largest television networks, radio stations and newspapers. For instance, the UCKG's leaders have developed explicit electoral strategies. Before each election, the UCKG carries out a census of its members, which records their

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<sup>56</sup> In 2010, The Brazilian Institute of Geography and Statistics (IBGE) announced that the evangelical population increased from 9.1% to 22.2% between 1991 and 2010.

<sup>57</sup> Christian Democratic Party (PDC), Liberal Front Party (PFL), Brazilian Labor Party (PTB) and the Brazilian Democratic Movement Party (PMDB)

<sup>58</sup> The "new right" defended traditionalist values referring to the family and sexuality to the pillars usually associated with rightist positions, such as the defence of property rights, resistance in agrarian reform and the expansion of state intervention in the economy (Pierucci, 1989).

<sup>59</sup> Liberal Party (PL), Brazilian Progressive Party (PPB) and Social Liberal Party (PSL).

<sup>60</sup> There was 31, 28 and 34 congress members in the pro-government parties against 5, 3 and 1 in the opposition parties respectively to the mentioned legislature years (Fonseca, 2008).

electoral data. The data is presented to the regional bishops, who then transmit it to the national leaders. Together they decide how many candidates to present in each municipality or state. Their decision depends on the type of election, the electoral quotient of the parties and the number of voters registered by the local churches (Oros, 2005). Also, they provide support and endorsement for electoral campaigns to its candidates (via sermons, and church media, among others), instruct its members on how to vote and even plan the church's location. (Boas, 2013; Freston, 1993; Oros, 2005). Furthermore, flexible policies proposed by political candidates are affected by socialisation and endorsement, as religious members are socialised towards policies defending traditional family values and preferences on issues such as abortion, euthanasia and same-sex marriage. These become particularly visible in the 2010 and 2018 presidential election campaigns.

### 1.5.3. Politics in the Democratic Islam World

There are some cultural reasons why Islamic countries do not look for a separation between religion and state as Western democracies do. The tradition of Islamic religion, where the state was the church and the church was the state with God as the head of both and the Prophet as his representative on the earth explain it. Prophet Muhammad, the founder of the Muslim religion, was the head of the state in his own city "*Medina*" (Platteau, 2009; Lewis, 2002). Therefore, it is not surprising that the proportion of Muslims who believe that religious leaders should have a large or some influence on politics is higher than the proportion of Christians who hold the same belief in Latin America.<sup>61</sup> The countries giving greater importance (*some importance*) to the religious leaders' influence in politics were Afghanistan 53% (29%), Malaysia 41% (41%), Jordan 37% (43%), Indonesia 30% (45%), Egypt 28% (47%), Iran 40% (26%), Tunisia 27% (31%), Pakistan 27% (27%), Bangladesh 25% (44%) and Iraq 24% (33%) (Pew Research Center, 2013).

In most Islamic countries, the persistence of the Authoritarian regime is visible with few exceptions with fair and free elections, such as Indonesia, Malaysia and Senegal (EIU, 2016). The Middle East and Northern African countries, except Turkey and the former Soviet bloc

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<sup>61</sup> In Latin America, 90.9% of the population is Christian, from those 50% answered that religious leaders should have a large (18.5%) or some (31.5%) influence in political matters. In the Islamic region, 92.2% of the population is Muslim, of which 65.1% responded that religious leaders should have a great (28.5%) or some (36.6%) influence on politics. I used the data from the Pew Research Center (2012, 2013, 2014) to calculate those statistics.

states, have Islam as their state religion (Fox, 2008). Indonesia, the country with the largest Muslim population in the world, is the case study.<sup>62</sup>

### 1.5.3.1. Local Elections in Indonesia

Indonesia had been run autocratically, with heads of provinces, districts and municipalities appointed directly by the central government until the 1999 democratic elections. As a new democracy, Indonesia starts pursuing a decentralization of governmental power. These, together with the recognition of ethnic and cultural diversities among Indonesia's population groups, resulted in the increasing decision-making power of local chiefs. Since 2005 both district and provincial heads have been elected by direct vote. Indonesian's 1945 constitution states that "*the State shall be based upon the belief in the One and Only God*". It also recognizes Indonesia as a multi-faith nation and protects religious freedom (Fox, 2008).<sup>63</sup> It implies that, at the national level, Shari'a laws are not allowed. However, in the literature, there is evidence that local governments have adopted "*Islam-inspired regulations (IIR)*" to complement national laws, which the government allows to meet local needs (Buehler, 2013; Buehler & Muhtada, 2016; Pisani & Buehler, 2016).<sup>64</sup> To study the influence of religious leaders in Indonesia is better to focus on local rather than national elections for the following reasons. At the regional and national levels, party affiliation remains weak (politicians tend to switch frequently from one political party to another), and political parties are weakly institutionalised (personal characteristics of political candidates prime over parties) (Thornley, 2014; Buehler & Tan, 2007).<sup>65</sup>

Buehler (2016)'s book "*The Politics of Shari'a Law*" points out that state elites politicians are flexible to the demands of religious group leaders if they can help them gain power in electoral elections. Politicians value power brokers, religious leaders who teach Islam and who can mobilize voters. In local districts, competition between politicians allowed Islamist groups to gain influence in politics. Islamist groups have pushed for an increase in the adoption of *IIR* in different districts of Indonesia. For instance, between 1999 and 2012, the number of *IIR*

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<sup>62</sup> The share of Muslims in Indonesia's population is 87.18% according to the 2010 population census.

<sup>63</sup> The Indonesian government recognizes only six official religions: Islam, Protestantism, Catholicism, Hinduism and Confucianism.

<sup>64</sup> Local governments passed regulations such as dress codes for Muslims, collection of religious alms, prohibition of alcohol and prostitution, and promotion of Islam through Qur'an reading education. Additionally, since 2001 the central government allowed the adoption of shari'a regulations in the Aceh province to reduce the separatist insurgency.

<sup>65</sup> Political candidates build their reputation and network support based on their personal attributes.

passed by the provinces was 442, of which 259 (57%) potentially benefited interest groups (Pisani & Buehler, 2016). Six provinces - Aceh, West Java, East Java, West Sumatra, South Kalimantan and South Sulawesi - that have a history of Islamic movements gaining influence in politics account for 67.5 per cent (299/443) of the *IIR* adopted between 1999 and 2013 (Buehler, 2016, p.2).

In most cases, the strategy followed by the leaders of Islamist Movements is to negotiate or pressure the political candidates to pass *IIR* in exchange for their endorsement. The leaders or high ranks of the Islamist Movements rarely try to influence politics by directly competing in the election. The cultural transmission of these groups is high (high degree of cohesiveness and socialisation). Clear examples of these were the local election in the provinces of West Java and South Sulawesi.<sup>66</sup> In West Java, the Movement for the Reform of Islam (GARIS) is well known for lobbying secular politicians and parties and has exerted influence on local governments since 1999 (Buehler, 2013; Buehler, 2016). In 1999, during the election campaign, Wasidi Swastomo, the incumbent in this district at the time, promised radical groups that he would adopt several *IIR*, a promise he kept when he remained in power. He adopted a regulation dress code “headscarf” for women and challenged all the street signs from Latin script to Arabic in 2010. He also passed eight shari’a regulations (*IIR*) between 2001 and 2006. In the Bogor district, the protest of Islamic Movements against the Ahmadiyah sect led to the election of Diani Budiato in 2004, who outlawed the activities of the Ahmadiyah. He passed another regulation, ordering to close of a Christian church in 2006.<sup>67</sup> In 2009, he made the electoral political promise to demolish the Ahmadiyah mosque of Bogor if re-elected, which he delivered in 2010 (Buehler, 2013).

In South Sulawesi, nine *IIR* were adopted, in 2005, under the influence of the Islamic Movement, the Preparatory Committee for the Implementation of Shari’a Law (KPPSI). For instance, in 2001, the district head in Gowa, Syahrul Yasin Limpo, adopted *IIR* on alcohol to gain the support of religious groups. Later, in 2004 he became a deputy governor and started to invite the KPPSI’s leaders to his residence for religious debate and even he gave a speech at the

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<sup>66</sup> Almost all of the Islamist Movements formed in these provinces have as leaders former Darul Islam fighters or religious teachers sympathetic to the Darul Ismal rebellion. These leaders formed or funded religious boarding schools to support Islamist movements and recruit members for these groups. For further detail, see Buehler (2016) chapter 6 and Hasani & Naipospos (2010). In addition, the provinces of West Java adopted 42.1% and South Sulawesi adopted 38.5% of the total number of *IIR* adopted in Indonesia between 1999 and 2012. The distribution of *IIR* adoption was 5.3% at the provincial level and 36.8% at the district and municipal levels in West Java. In South Sulawesi, the distribution of *IIR* adoption was 10.5% at the provincial level and 28% at the district and municipal levels. (Buehler, 2013, p. 76).

<sup>67</sup> The elected district chiefs who were later re-elected made similar promises in Kuningan and Tasikmalaya districts during the election periods. Promises that they quickly fulfilled after being re-elected.

KPPSI congress in 2005. In 2007, when Syahrul Yasin Limpo ran against incumbent Amin Syam for governor, he won the election and became governor of South Sulawesi.<sup>68</sup> He took office and adopted a regulation to ban Ahmadiyah activities in the entire province (Buehler, 2013).

In the Bulukumba regency (consisting of 10 districts) in 2003, Patabai Pabokori, the regent and KPPSI member, adopted *IIR* on dress code and Islamic education.<sup>69</sup> He also adopted the *IIR* to collect money “*Zakat* system” and conducted the Cash Programme in Religiosity of his district during his regency. The collected money from the *zakat* by-law served him to establish a network at the subdistrict level and to give money to religious notable in public. Furthermore, he implemented the Muslim villages’ program, through which these villages received additional budget funds from the district for the implementation of shari’a laws. The money collected from the *zakat* by-law scheme was given to “influential local religious notables and boarding schools” to form a cohesive network of imams and religious teachers. (Buehler, 2008). In other words, politicians used the money to gain the support of religious leaders in times of elections. Many districts in South Sulawesi followed this path (one-third of all districts in the province adopted the *zakat* by-law).<sup>70</sup>

This theory of leader socialisation and endorsement argues that in societies with a high level of socialisation, leader influence in politics is high. In these societies, the club leader decides to negotiate a contract with his preferred politician in exchange for future policies with pecuniary and non-pecuniary benefits for him and his club members. It is the case in the Bulukumba regency and other districts of South Sulawesi in the years analysed. Elected politicians started giving money to religious notables, in public, by introducing an *IIR* to collect money. There were also future policy gains for religious groups after local elections, such as the Cash in Religiosity programme (for Muslims only), the Muslim villages’ programme, the closure of churches, the demolition of the Ahmadiyah mosque in Bogor and the ban on Ahmadiyah activities (in the West Java region). As this theory suggests, the leaders of Islamic movements, through socialisation and endorsement, mobilise members of religious groups to vote for a candidate proposing a specific flexible policy. It was possible given that the club members are

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<sup>68</sup> Amin Syam tried to obtain the endorsement of the Islamist Movements by visiting several Islamist boarding schools and giving them money and other contributions. He praised the *Pesantren* education system and omitted that the Indonesian army, in which he served during the New Order era, had suppressed such radical schools in South Sulawesi. Syahrul Yasin Limpo, their opponent, has an advantage because he started to approach them earlier, after the end of the New Order regime.

<sup>69</sup> It made it mandatory for schoolgirls to wear a headscarf and working men to wear long trousers in the office. It was established as compulsory to have a satisfactory level of Qur’an readings for schoolchildren and students to pass their final exams. It also made it a criterion to become a district bureaucrat and to be able to seek promotion.

<sup>70</sup> This type of exchange also happened in other districts. See Buehler (2016, p. 154-159).



highly socialised and the large size of the Muslim population. The adoption of the *IIR* came after district candidates endorsed by Islamic group leaders won the elections. In particular, the adoption of a high share of *IIR* occurred in districts where Islamist groups have strong historical roots. Politicians traded *IIR* adoption in exchange for religious leader support. Locally connected Islamist Leaders frequently acted as vote-getters through the groups and boarding schools under their control (Buehler, 2016, p. 185). Furthermore, in these districts, the vast number of *IIR* adopted were related to Islamic teaching (indoctrination/socialisation). For example, from 1998 to 2013, 60% (252/422) of all adopted *IIR* were about Islamic teachings (Buehler & Muhtada, 2016).

## 1.6. Concluding comments

Identifying the mechanisms through which organised groups can influence policies and electoral outcomes matters as it defines the future of a country. Most contributions in the literature focus on the effect of a political leader endorsement, the endorsement of a well-known figure or group campaign contributions on political outcomes.<sup>71</sup> In these models, the mechanisms allow the voters (organized and non-organized ones) to infer information about the candidates and vote accordingly. In these models, the endorsement can be observed or inferred by the population as a whole. Endorsement is an effective mechanism only when groups have non-diametrically opposed policy preferences.

This essay argues that group leaders influence policies and electoral outcomes of democratic societies through endorsement and socialisation mechanisms. Although I first start, with a simple probabilistic model of political competition, as the model evolves, with the introduction of endorsement and socialisation, it enables the assessment of the effect of those mechanisms on politics. Each mechanism differs in its impact on club members' preferences. Leader endorsement has a temporary effect on club members' preferences. In contrast, leader socialisation permanently shapes club members' preferences, which has significant implications for future policy decisions.

This work is the first to formally integrate the interaction between leader influence mechanisms and electoral policies and outcomes. The model shows that the leader's choice of whether to use endorsement and socialisation mechanisms separately or jointly depends on the characteristics of the club. Endorsement becomes the most implemented mechanism by the

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<sup>71</sup> See Grossman & Helpman (1996; 1999), Wittman (2009), and Garthwaite & Moore (2013), among others.

leader when the preferences between the leader and the club members are highly divergent since socialisation is too costly. On the contrary, socialisation becomes the most implemented one when the preferences between the leader and the club members are highly convergent.

In the model, the leader acts strategically in choosing which politicians to propose the contract. The leader's decision to propose the contract to a candidate depends on the strength of the leader effect versus the weighted ideological bias of the population towards a political party. The leader effect is composed of the endorsement effect and socialisation effect. If the leader effect is larger than the ideological effect, the leader proposes the contract to his preferred candidate. Otherwise, he proposes the contract to the candidate with the most popular fixed policy. Random choice is manifested only when the leader and the club members are ideologically neutral. Namely, the political candidate the leader proposes the contract is most likely to win and, therefore, the platform that favours the leader and his club is the one that is most likely to be implemented. This study also points out that the change of parameters of the model can affect the leader's level of socialisation capacity. Leader socialisation capacity increases when; the whole population is less subject to popularity shocks, the club population is less subject to ideological biases and flexible policy taste increases. Interestingly, as the marginal return of leader endorsement increases, leader socialisation capacity increases, implying that the leader endorsement renders more likely leader socialisation.

This chapter provides important insights into how the divergence of the platform change based on the mechanism implemented by the leader. Leader endorsement increases the endorsed candidate's probability of winning. However, flexible policies among candidates continue to converge as the leader's endorsement is observed. Leader socialisation increases the probability that the candidate who accepts the leader contract will be elected because leader socialisation capacity is not observed by politicians, leading to a divergence between candidates' flexible policies. The candidate who accepted the leader contract gets the information about the leader's socialisation capacity while his contender does not. It gives him the advantage of setting the right level of flexible policy for the electoral elections. Furthermore, the implementation of both mechanisms by the leader increases the likelihood that the candidate who accepts the leader's contract will be elected. However, the divergence between candidates' flexible policies decreases as the leader's endorsement is public, which decreases the information asymmetry between candidates.

This model is applicable in regions where group leaders use socialisation, endorsement or both to influence politics. While this framework highlights the importance of the leader's role in influencing policy and electoral outcomes in a model of political competition, it is the first

step towards a better understanding of this phenomenon. Several issues require further exploration. First, the identity of the candidates running for election is left undefined. The political candidates could themselves belong to a club. Second, political parties' identity is also undefined. For instance, a club-founded political party might promote the club's interest. Third, some choices of our modelling demand further exploration. In this model, I assume that there is only one organised group, "the club". Nevertheless, there may be many clubs, each with a leader with different socialisation capacities, political preferences and criteria for negotiating with politicians. Multiple clubs may change the way political party representatives and club leaders react. A political candidate must take into consideration the characteristics of each club. The club leaders may also compete to influence policies. The candidates must accept the contracts that they judge as most valuable. The political candidates' flexible policy may depend not only on the socialisation capacity of the leader but also on the weighted average of the groups' flexible policy after socialisation. A leader's influence in politics will be as large as his socialisation capacity and the size and cohesion of the group he represents. Given the prediction of this model, I expect the following results. 1) Leaders of the imposing groups select strategically the candidate to whom they propose their contract. 2) Leader socialisation without leader endorsement is expected when; there are imposing groups of the same size, with perfectly opposite flexible policy preferences, and when group members have a high preference convergence for flexible policy. 3) The candidate with the highest probability of winning is the one that accepts the offers of the leaders of the imposing clubs. 4) A large divergence in the candidates' platforms, as there would be more non-observable variables for the politicians which may increase the information asymmetry between them.

## 1.7. Appendix

### 1.7.1. Candidates' reaction policy

I divide the general *Assumption 1* into two sub-assumption to analyse the candidates' reaction policy in each case.

**Assumption 1.1:** *The function  $G(e)$  is an increasing function for all  $e \in [0,1]$  and  $e \sim U(0,1)$ .*

#### Political Competition after leader endorsement

Suppose that the leader proposes the contract to candidate  $A$ , who accepts it. As he has now all the information available, he sets  $Z_A^* = Z_v^*(e) = e\Delta Z + Z_v^*$ . In contrast, candidate  $B$  is unable to know the leader's level of socialisation capacity. However, he expects the leader to endorse candidate  $A$  when the leader's expected utility with endorsement is at least equal to the one expected without it. That is, when,  $G(e) = U^L(e, 1) - U^L(e, 0) \geq 0$ . So, if  $e_E^I$  is the leader expected indifferent threshold for candidate  $B$ , then  $U^L(e_E^I, 1) = U^L(e_E^I, 0)$ . Thus, politician  $B$  expects the club leader to endorse candidate  $A$  when  $e \in C_E = [e_E^I, 1]$ .

$$\max_{Z_B} p_B(e, \varepsilon_A = 1) = \frac{1}{2} - \Omega \left[ \frac{-\sum_{G=1}^2 \lambda_G b_G + \lambda_2 \phi_2 \{ \gamma [ |Z_B^* - Z_v^*(e)| - |Z_A^* - Z_v^*(e)| ] - h \}}{\sum_{G=1}^2 \lambda_G \phi_G} \right]$$

$$Z_B^* = Z_B^E = \int_{e_E^I}^1 Z_v^*(e) de = \frac{(1 - e_E^{I^2})}{2} \Delta Z + (1 - e_E^I) Z_v^*$$

#### Political Competition without leader endorsement

Similarly, candidate  $B$  expects the leader to endorse candidate  $A$  if the leader's expected utility with endorsement is at least equal to the one expected without it. That is, when,  $U^L(e, 0) - U^L(e, 1) \geq 0$ . So, if  $e_{NE}^I$  is the leader expected indifferent threshold for candidate  $B$ , then  $U^L(e_{NE}^I, 1) = U^L(e_{NE}^I, 0)$ . Therefore, politician  $B$  expects the club leader not to endorse candidate  $A$  when  $e \in C_{NE} = [0, e_{NE}^I]$ .

$$Z_B^* = Z_B^{NE} = \int_0^{e_{NE}^I} Z_v^*(e) de = \left( \frac{e_{NE}^{I^2}}{2} \Delta Z + e_{NE}^I Z_v^* \right)$$

The endorsement game of the leader is a *sequential Nash subgame perfect equilibrium*, where the leader decides whether to endorse or not a candidate after his contract is accepted. Candidate  $B$  observes the leader's endorsement decision but does not know the leader's level of socialisation capacity " $e$ ". Therefore, he makes a Bayesian revision to estimate the leader's socialisation capacity and determines his position on the flexible policy " $Z_B^*$ ". But since we assume that  $G'(e) > 0$ , the leader has a unique indifference threshold  $\bar{e}^I = e_E^I = e_{NE}^I$ , at which the leader is indifferent between supporting candidate  $A$  or not.

**Assumption 1.2:** The function  $G(e)$  is a decreasing function for all  $e \in [0,1]$  and  $e \sim U(0,1)$ .

The reasoning is analogous to the previous one but considering  $G'(e) < 0$ . Consequently, candidate  $B$  expects the leader to endorse candidate  $A$  when  $e \in C_E = [0, e_E^I]$ . Otherwise, he expects the leader not to endorse candidate  $A$  when  $e \in C_{NE} = [e_{NE}^I, 1]$ . Then

$$Z_B^* = Z_B^E = \int_0^{\bar{e}^I} Z_v^*(e) de = \left( \frac{\bar{e}^{I^2}}{2} \Delta Z + \bar{e}^I Z_v^* \right)$$

$$Z_B^* = Z_B^{NE} = \int_{\bar{e}^I}^1 Z_v^*(e) de = \frac{(1 - \bar{e}^{I^2})}{2} \Delta Z + (1 - \bar{e}^I) Z_v^*$$

where,  $\bar{e}^I = e_E^I = e_{NE}^I$ .

### 1.7.2. Proof of Lemma 2

In Lemma 2 (I) to have  $\bar{e} \in \langle 0, e_3 \rangle$ ,  $G(e = 0) < 0$ . Let me define  $\underline{\lambda}_2$  as the club population size at which  $G(e = 0, \lambda_2 = \underline{\lambda}_2) = 0$ . Then for all  $\bar{e} \in \langle 0, e_3 \rangle$ ,  $\lambda_2 > \underline{\lambda}_2$ .

$$\underline{\lambda}_2 = \begin{cases} \frac{\left(\frac{1}{2} + b_1\right) \left\{ \frac{\Delta Z}{2} + Z_v^* \right\}}{\gamma Z_v^{*2} - \frac{h\bar{R}}{\gamma} + \frac{\Delta Z}{2} \left\{ h + \gamma \frac{\Delta Z}{2} - \bar{R} \right\} + Z_v^* \bar{R} - (b_2 - b_1) \left\{ \frac{\Delta Z}{2} + Z_v^* \right\}}, & \text{if } J = A \\ \frac{\left(\frac{1}{2} - b_1\right) \left\{ \frac{\Delta Z}{2} + Z_v^* \right\}}{\gamma Z_v^{*2} - \frac{h\bar{R}}{\gamma} + \frac{\Delta Z}{2} \left\{ h + \gamma \frac{\Delta Z}{2} - \bar{R} \right\} + Z_v^* \bar{R} + (b_2 - b_1) \left\{ \frac{\Delta Z}{2} + Z_v^* \right\}}, & \text{if } J = B \end{cases}$$

Similarly in Lemma 2 (2), to have  $\bar{e} \in \langle e_3, 1 \rangle$ ,  $G(e = 1) < 0$ . Let's define  $\underline{\underline{\lambda_2}}$  as the club population size at which  $G(e = 1, \lambda_2 = \underline{\underline{\lambda_2}}) = 0$ . Then for all  $\bar{e} \in \langle 0, e_3 \rangle$ ,  $\lambda_2 > \underline{\underline{\lambda_2}}$ .

$$\underline{\underline{\lambda_2}} = \begin{cases} \frac{\left(\frac{1}{2} + b_1\right) \left\{ \frac{\Delta Z}{2} + Z_v^* \right\}}{\gamma(\Delta Z + Z_v^*)^2 + \bar{R} \left( \frac{\Delta Z}{2} + Z_v^* \right) - \frac{h\Delta Z}{2} - \gamma \left( \frac{\Delta Z}{2} \right)^2 - \frac{h\bar{R}}{\gamma} - (b_2 - b_1) \left\{ \frac{\Delta Z}{2} + Z_v^* \right\}}, & \text{if } J = A \\ \frac{\left(\frac{1}{2} - b_1\right) \left\{ \frac{\Delta Z}{2} + Z_v^* \right\}}{\gamma(\Delta Z + Z_v^*)^2 + \bar{R} \left( \frac{\Delta Z}{2} + Z_v^* \right) - \frac{h\Delta Z}{2} - \gamma \left( \frac{\Delta Z}{2} \right)^2 - \frac{h\bar{R}}{\gamma} + (b_2 - b_1) \left\{ \frac{\Delta Z}{2} + Z_v^* \right\}}, & \text{if } J = B \end{cases}$$

Proof of Lemma 2 (2)

By Assumption 1.2,  $G'(e) < 0$  and  $\bar{e} \in \langle 0, 1 \rangle$ . Then  $G'(0) < 0$ .

$$G'(0) = k\gamma^2 \left\{ 2 \frac{\left\{ \frac{1}{2} + a \right\}}{k\gamma} [Z_v^*] + \frac{h}{\gamma} \{\Delta Z - Z_v^*\} + 2 \frac{\bar{R}}{\gamma} \Delta Z + 2(\Delta Z - Z_v^*)(Z_v^*) - 2(Z_v^* - \Delta Z) \left( \frac{\Delta Z}{2} \right) \right\} < 0.$$

By simplifying,

$$0 < 2Z_v^{*2} + 2Z_v^* \left( \frac{Z_L}{2} + \frac{h}{\gamma} + \frac{\bar{R}}{\gamma} - \frac{\left\{ \frac{1}{2} + a \right\}}{k\gamma} \right) - Z_L \left( Z_L + \frac{h}{\gamma} + \frac{2\bar{R}}{\gamma} \right).$$

Then

$$Z_v^* \geq \frac{1}{2} \left[ - \left( \frac{Z_L}{2} + \frac{h}{\gamma} + \frac{\bar{R}}{\gamma} - \frac{\left\{ \frac{1}{2} + a \right\}}{k\gamma} \right) + \sqrt{\left( \frac{Z_L}{2} + \frac{h}{\gamma} + \frac{\bar{R}}{\gamma} - \frac{\left\{ \frac{1}{2} + a \right\}}{k\gamma} \right)^2 + 2Z_L \left( Z_L + \frac{h}{\gamma} + \frac{2\bar{R}}{\gamma} \right)} \right].$$

Therefore the minimum value of  $Z_v^*$  is

$$\bar{Z}_v = \frac{1}{2} \left[ - \left( \frac{Z_L}{2} + \frac{h}{\gamma} + \frac{\bar{R}}{\gamma} - \frac{\left\{ \frac{1}{2} + a \right\}}{k\gamma} \right) + \sqrt{\left( \frac{Z_L}{2} + \frac{h}{\gamma} + \frac{\bar{R}}{\gamma} - \frac{\left\{ \frac{1}{2} + a \right\}}{k\gamma} \right)^2 + 2Z_L \left( Z_L + \frac{h}{\gamma} + \frac{2\bar{R}}{\gamma} \right)} \right].$$

### 1.7.3. Proof of Lemma 3

#### *Lemma 3 (I)*

##### Proof of (I)(1)

If  $e_E^1 < \bar{e} < e_E^2$  for  $\bar{e} \in \langle 0, e_2 \rangle$ ,  $\bar{e} < e$  ( $\bar{Z}_{-J}^E = Z_v^*(\bar{e})$ ). Then  $\bar{e}$  is in the decreasing part of the MB with leader endorsement. Then  $e_E^* = \bar{e}$  if  $U_E^L(e = 1) - U_E^L(e = \bar{e}) \leq 0$ .

Let me define  $\lambda_{21}^*$  as the population size at which  $U_E^L(e = 1) - U_E^L(e = \bar{e}) = 0$

$$\begin{aligned} & U_E^L(e = 1) - U_E^L(e = \bar{e}) \\ &= \lambda_2 \left\{ \left( \gamma(Z_v^*(1) - \bar{Z}_{-J}^E) \right)^2 + \left( \gamma(\bar{Z}_{-J}^E - Z_v^*(\bar{e})) \right)^2 + \gamma(Z_v^*(1) + Z_v^*(\bar{e}) - 2\bar{Z}_{-J}^E)\bar{R} \right. \\ & \quad \left. + \gamma(Z_v^*(1) - Z_v^*(\bar{e})) \left\{ \frac{1}{\lambda_2} \left( \frac{1}{2} - (1 - \lambda_2)b_1 - \lambda_2 b_2 \right) + h - \frac{\theta}{\lambda_2 \gamma} \right\} \right\} = 0 \end{aligned}$$

By simplifying,

$$(a) \lambda_{21}^* = \frac{\left\{ \frac{\theta}{\gamma} - \left( \frac{1}{2} - b_1 \right) \right\} (Z_v^*(1) - Z_v^*(\bar{e}))}{\gamma \left\{ (Z_v^*(1) - \bar{Z}_{-J}^E)^2 + (\bar{Z}_{-J}^E - Z_v^*(\bar{e}))^2 \right\} + (Z_v^*(1) + Z_v^*(\bar{e}) - 2\bar{Z}_{-J}^E)\bar{R} + [h + (b_1 - b_2)](Z_v^*(1) - Z_v^*(\bar{e}))}$$

Then from the condition of Lemma 2 and (a),  $e_E^* = \bar{e}$ .

##### Proof of (I)(2)

If  $\bar{e} < e_E^1 < e_E^2$  for  $\bar{e} \in \langle 0, e_2 \rangle$ ,  $\bar{e} < e$  ( $\bar{Z}_{-J}^E = Z_v^*(\bar{e})$ ). Then  $\bar{e}$  is in the decreasing part of the MB with leader endorsement. As a result,  $e_E^* = \bar{e}$  if  $U_E^L(e = 1) - U_E^L(e = e_1^E) \leq 0$ .

Defining  $\lambda_{22}^*$  as the population size at which  $U_E^L(e = 1) - U_E^L(e = e_1^E) = 0$ .

$$\begin{aligned} & U_E^L(e = 1) - U_E^L(e = e_1^E) \\ &= \lambda_2 \gamma (Z_v^*(1) - \bar{Z}_{-J}^E) \left( \gamma (Z_v^*(1) - \bar{Z}_{-J}^E) + \bar{R} + \frac{1}{\lambda_2} \left\{ \frac{1}{2} - b_1 + \lambda_2 (b_1 - b_2) \right\} + h \right. \\ & \quad \left. - \frac{\theta}{\lambda_2 \gamma} \right) - \frac{\lambda_2}{2} \{\bar{R}^2\} = 0. \end{aligned}$$

From which,

$$(b) \quad \underline{\lambda}_{22}^* = \frac{\left\{ \frac{\theta}{\gamma} - \left( \frac{1}{2} - b_1 \right) \right\}}{\gamma(Z_v^*(1) - \bar{Z}_{-J}^E) - \frac{\bar{R}^2}{2\gamma(Z_v^*(1) - \bar{Z}_{-J}^E)} + \bar{R} + h + (b_1 - b_2)}$$

Then by Lemma 2 et (b),  $e_E^* = e_E^1$ .

Proof of (I)(3)

(i) follows from (a) since  $U_E^L(e = 1) - U_E^L(e = \bar{e}) \geq 0$ , when  $\lambda_2 \geq \underline{\lambda}_{21}^*$ .

(ii) follows from (b) since  $U_E^L(e = 1) - U_E^L(e = e_1^E) \geq 0$ , when  $\lambda_2 \geq \underline{\lambda}_{22}^*$ .

(iii) if  $e_E^1 < \bar{e}$  then the unique solution with leader endorsement is  $e_E^2$ ,

for the FOC:

$$e_E^2 = \frac{1}{\Delta Z} \left\{ -\frac{1}{2\gamma} \left[ \frac{1}{\lambda_2} \left\{ \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) - \frac{\theta}{\gamma} \right\} + h + \bar{R} \right] + (\bar{Z}_{-J}^E - Z_v^*) \right\}.$$

Then

$$\begin{aligned} & U_E^L(e = 1) - U_E^L(e = e_E^2) \\ &= k \left( \gamma(Z_v^*(1) - \bar{Z}_{-J}^E) + \left( \frac{1}{2} \left[ \bar{R} + \frac{1}{\lambda_2} \left\{ \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) \right\} + h \right] - \frac{\theta}{2\lambda_2\gamma} \right)^2 \right) > 0. \end{aligned}$$

Similarly, when  $e_E^1 < e_E^2 < \bar{e}$  for  $\bar{e} \in [e_2, e_3)$ ,  $\bar{e} < e(\bar{Z}_{-J}^E = Z_v^*(\bar{e}))$ . Then  $\bar{e}$  is in the increasing part of the MB with leader endorsement, which leads to a corner solution  $e_E^* = 1$  since  $U_E^L(e = 1) - U_E^L(e = \bar{e}) > 0$ .

Proof of (I)(4)

First part

$e_{NE}^* = \bar{e}$  when  $e_{NE}^1 < \bar{e}$  since  $\bar{e} > e(Z_v^*(\bar{e}) = \bar{Z}_{-J}^{NE})$ . That is,  $\bar{e}$  is in the increasing part of the MB with leader endorsement.

$$\begin{aligned} & U_{NE}^L(e = \bar{e}) - U_{NE}^L(e = e_1^{NE}) \\ &= \lambda_2 \left[ \gamma(Z_v^*(\bar{e}) - \bar{Z}_{-J}^{NE}) \right]^2 \\ &+ \lambda_2 \gamma(Z_v^*(\bar{e}) - \bar{Z}_{-J}^{NE}) \left\{ \bar{R} + \frac{1}{\lambda_2} \left( \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) \right) - \frac{\theta}{\lambda_2\gamma} \right\} \\ &- \lambda_2 \left[ \frac{1}{2} \left\{ \bar{R} - \frac{1}{k} \left( \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) \right) + \frac{\theta}{k\gamma} \right\} \right]^2 \end{aligned}$$

Knowing that



$$e_1^{NE} = \frac{1}{\Delta Z} \left\{ \frac{1}{2\gamma} \left[ \frac{1}{\lambda_2} \left\{ \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) - \frac{\theta}{\gamma} \right\} - \bar{R} \right] + (\bar{Z}_{-j}^{NE} - Z_v^*) \right\}$$

$Z_v^*(e_1^{NE}) - \bar{Z}_{-j}^{NE} = \frac{1}{2\gamma} \left[ \frac{1}{\lambda_2} \left\{ \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) - \frac{\theta}{\gamma} \right\} - \bar{R} \right] \approx 0$ . Then  $e_{NE}^* = \bar{e}$  since  $U_{NE}^L(e = \bar{e}) - U_{NE}^L(e = e_1^{NE}) > 0$ .

*Second part*

If  $e_{NE}^1 < e_{NE}^2 < \bar{e}$ ,  $\bar{e} > e$  ( $\bar{Z}_{-j}^{NE} = Z_v^*(\bar{e})$ ). Then  $\bar{e}$  is in the increasing part of the *MB* without leader endorsement. As a result,  $e_E^* = \bar{e}$  if  $U_E^L(e = \bar{e}) - U_E^L(e = 0) \geq 0$ .

Let me define  $\underline{\lambda}_{23}^*$  as the population size at which  $U_{NE}^L(e = \bar{e}) - U_{NE}^L(e = 0) = 0$ .

$$\begin{aligned} U_{NE}^L(e = \bar{e}) - U_{NE}^L(e = 0) = \\ &= \lambda_2 \left\{ \left[ \gamma(Z_v^*(\bar{e}) - \bar{Z}_{-j}^{NE}) \right]^2 + \left[ \gamma(\bar{Z}_{-j}^{NE} - Z_v^*) \right]^2 + \gamma(Z_v^*(\bar{e}) + Z_v^* - 2\bar{Z}_{-j}^{NE})\bar{R} \right. \\ &\quad \left. + \gamma(Z_v^*(\bar{e}) - Z_v^*) \left\{ \frac{1}{\lambda_2} \left( \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) \right) - \frac{\theta}{k\gamma} \right\} \right\} \end{aligned}$$

By simplifying,

$$(c) \quad \underline{\lambda}_{23}^* > \frac{\left\{ \frac{\theta}{\gamma} - \left( \frac{1}{2} - b_1 \right) \right\} (Z_v^*(\bar{e}) - Z_v^*)}{\gamma(Z_v^*(\bar{e}) - \bar{Z}_{-j}^{NE})^2 + \gamma(\bar{Z}_{-j}^{NE} - Z_v^*)^2 + (Z_v^*(\bar{e}) + Z_v^* - 2\bar{Z}_{-j}^{NE})\bar{R} + (b_1 - b_2)(Z_v^*(\bar{e}) - Z_v^*)}$$

Then  $e_{NE}^* = \bar{e}$  since  $U_{NE}^L(e = \bar{e}) - U_{NE}^L(e = 0) \geq 0$ , when  $\lambda_2 \geq \underline{\lambda}_{23}^*$ .

*Proof of (I)(5)*

(i) follows from (c).  $U_{NE}^L(e = \bar{e}) - U_{NE}^L(e = 0) \leq 0$ , when  $\lambda_2 \leq \underline{\lambda}_{23}^*$ .

(ii) If  $e_{NE}^1 < \bar{e} < e_{NE}^2$ ,  $\bar{e}$  is in the decreasing part of the *MB* without leader endorsement. Then  $e_E^* = 0$  since  $U_E^L(e = \bar{e}) - U_E^L(e = 0) < 0$ .

**Lemma 3 (II)**

In the following cases,  $\bar{e}$  is always in the increasing part of the *MB* since  $\bar{e} > e(\bar{Z}_{-j}^E = Z_v^*(\bar{e}))$ .

Proof of (II)(1)

Defining  $\underline{\lambda}_{24}^*$  as the population size at which  $U_E^L(e = 0) - U_E^L(e = \bar{e}) = 0$ .

$$\begin{aligned} U_E^L(e = 0) - U_E^L(e = \bar{e}) \\ = \lambda_2 \left( \gamma(Z_v^* + Z_v^*(\bar{e}) - 2\bar{Z}_{-J}^E) + \left[ \bar{R} + \frac{1}{\lambda_2} \left\{ \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) \right\} + h \right] \right) \gamma(Z_v^* \\ - Z_v^*(\bar{e})) - \theta(Z_v^* - Z_v^*(\bar{e})) = 0 \end{aligned}$$

By simplifying,

$$(d) \quad \underline{\lambda}_{24}^* = \frac{\frac{\theta}{\gamma} - \left\{ \frac{1}{2} - b_1 \right\}}{\gamma(Z_v^* + Z_v^*(\bar{e}) - 2\bar{Z}_{-J}^E) + \bar{R} + h + (b_1 - b_2)}$$

It follows that  $e_E^* = \bar{e}$ , when  $e_E^2 < \bar{e}$  and  $\lambda_2 > \underline{\lambda}_{24}^*$ . Otherwise  $e_E^* = 0$

Proof of (II)(2)

Let me define  $\underline{\lambda}_{25}^*$  as the value at which  $U_{NE}^L(e = 1) - U_{NE}^L(e = \bar{e}) = 0$ .

$$\begin{aligned} U_{NE}^L(e = 1) - U_{NE}^L(e = \bar{e}) \\ = \lambda_2 \left[ \gamma(Z_v^*(1) - \bar{Z}_{-J}^{NE}) + \left( \frac{1}{2} \left\{ \bar{R} + \frac{1}{\lambda_2} \left( \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) \right) \right\} \right) \right]^2 \\ - \lambda_2 \left[ \gamma(Z_v^*(\bar{e}) - \bar{Z}_{-J}^{NE}) + \left( \frac{1}{2} \left\{ \bar{R} + \frac{1}{\lambda_2} \left( \frac{1}{2} - b_1 + \lambda_2(b_1 - b_2) \right) \right\} \right) \right]^2 - \theta \Delta Z + \theta \bar{e} \Delta Z \\ = 0. \end{aligned}$$

Then

$$(e) \quad \underline{\lambda}_{25}^* = \frac{\frac{\theta}{\gamma} - \left\{ \frac{1}{2} - b_1 \right\}}{\gamma(Z_v^*(1) + Z_v^*(\bar{e}) - 2\bar{Z}_{-J}^E) + \bar{R} + (b_1 - b_2)}.$$

From the condition of Lemma 2 and (e),  $U_{NE}^L(e = 1) - U_{NE}^L(e = \bar{e}) \leq 0$  only when  $\underline{\underline{\lambda}}_2 < \lambda_2 < \underline{\underline{\lambda}}_{25}^*$ .



## **Chapter**

### **2. Political Culture and Democratisation**

## **Abstract**

This research claims that the transmission of political-culture matters for the transition toward democracy and for becoming a stable democracy. However, some important long-standing unresolved issues and some contextual factors of a society affect the strength of the political transmission of preferences. They influence the steady state of the share of citizens who prefer a democratic system and, hence, the probability of democratisation for autocratic societies and the probability of remaining a democracy for democratic societies. A model of political-cultural transmission with overlapping generations is developed to examine the effect of inequality, democratic effectiveness, corruption, elite uncertainty and extra-elite socialisation on the probability of becoming or remaining a democracy, through their impact on the transmission of political preferences in the long run among citizens. The theoretical analysis shows that, in autocracies, inequality, elite uncertainty, and extra-elite socialisation increase the transmission of democratic political culture, which, in turn, increases the probability of democratisation. In counterpart, in democracies, inequality and corruption decrease the transmission of democratic political culture and, therefore, the probability of remaining in democracy.

**JEL Classification:** D02, D10, D31, D63, D72, D73, D81, H13, P16, Z10

**Keywords:** Socialisation, political system, inequality, corruption, elite uncertainty, political preferences, democracy, political culture.

## 2.1. Introduction

Most economists, political scientists, and policymakers have realised that factors like inequality, corruption, system effectiveness and uncertainty affect support for democracy and thus the transition to democracy in autocratic countries or democratic consolidation in democratic countries. However, there is little research on how these factors affect support for democracy. Much of the theoretical and empirical work focuses either on the relationship between inequality and the likelihood of democratisation or on how support for democracy affects subsequent democratic change (Acemoglu & Robinson, 2006; Answell & Samuels, 2014; Boix, 2003; Claassen, 2020). Nevertheless, the idea that democratic support matters for democracy and its consolidation has raised interest among scholars, increasing the empirical research examining the effect of inequality and corruption on support for democracy (e.g. Anderson & Tverdova, 2003; Krieckhaus et al., 2014; Linde & Erlingsson, 2013).

Moreover, political and social scientists have long described and theorised the importance of political socialisation as a channel through which political culture develops and serves to create the basis for long-term support for a political system. It can be resumed as follows. 1) Political socialisation matters in the evolution of political culture as it predisposes the new generation to absorb civic culture through exposure to the political attitudes and behaviour of the old generation (Almond & Verba, 1963). 2) The process of political socialisation helps the political system's legitimisation which is necessary for the maintenance of the most enduring form of political system support (Easton, 1965). Another important implication from systems analysts and democratic theorists is that long-term political system ineffectiveness in meeting citizens' expectations erodes system legitimacy and thus undermines support for a political system (Easton, 1975; Lipset, 1959).

This research provides a framework to analyse the interaction between political-cultural changes, political systems principles, and long-term experience with its performance. Further, it allows studying the impact of the factors that originated the political culture changes toward the transition to a democratic political system (in autocratic countries) or democratic consolidation (in democratic countries). It acknowledges the importance of social networks for individuals since it influences, through socialisation and learning, their values and political preferences. It also recognises the influence that political systems ideologies and their long-term performance have in the evolution of political preferences of individuals depending on the socio-economic and cultural background from which they have emerged.

Specifically, I first develop a basic model of political socialisation and cultural transmission. In this model, the cultural trait to be transmitted is the ideological preference for a political system.<sup>72</sup> There are two classes of homogeneous agents, the elite and the poor, and two possible political systems, autocracy and democracy. Parents exhibit imperfect empathy since the well-being of their children matters to them, yet they analyse the future situation of their children from their views about the political systems. Parental socialisation is costly but increases the likelihood that a child will acquire the political preference of his or her parents. Thus, if citizens who prefer a democratic system are a minority, then democratic-type parents have incentives to increase their socialisation effort, which will, in turn, strengthen the preference for a democratic system. Under reasonable conditions, endogenous socialisation effort leads to an equilibrium with heterogeneous preferences for a political system. This model explains the existence of heterogeneous political preferences among citizens but does not explain how factors such as inequality, elite uncertainty, the effectiveness of a political system, corruption and extra-elite socialisation alter the equilibrium of heterogeneous preferences for a political system.

To examine how inequality affects the transmission of political preferences, I introduce class inequality (model 2.3.2) into the basic model. The autocratic ruler always favours the elite, which, in turn, helps him to maintain his regime. The benefit and the cost of the elite depend on the level of inequality in the country. Since the country starts as an autocracy, the political preference that democratic parents transmit to their children is towards the principles of democracy, as they have no experience with democracy. It predicts that an increase in inequality increases the transmission of preferences towards a democratic political system either when the cost of inequality is high enough or when inequality is so high that its effect on citizens' utility more than offsets their ideological preferences.

Two extensions of model 2.3.2 are made in order to analyse how the long-term performance of a political system in tackling inequality (model 2.3.3) and corruption (model 2.3.4) affects the transmission of political preferences. The assumption of perfect democracy is relaxed in these models. They require citizens to have large enough experience with the performance of a democratic political system, such that they consider it when transmitting their political preferences. Model 2.3.3 shows that the lower the effectiveness in reducing inequality is, the lower the transmission of preferences towards a democratic political system will be. Model 2.3.4 predicts that the higher the level of corruption is, the lower the transmission of preferences

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<sup>72</sup> It follows Bisin & Verdier's (2000, 2001) models, in which children are first exposed to parental socialisation and, if it fails, are randomly matched to the population role model.

towards a democratic political system will be. Besides, it suggests that societies with a higher level of corruption are more susceptible to being influenced by alternative agents of socialisation, as corruption erodes belief in any political system, leading to a very weak parental socialisation.

This study also explores an alternative channel that can lead to an increase in the transmission of preferences towards a democratic system, the elite uncertainty about the autocratic ruler type. To this end, two possible types of autocratic rulers, each aligned with the interest of a different class, are introduced into model 2.3.2. Elite uncertainty comes from the risk of expropriation that the elite may face when the autocratic ruler aligns himself with the interests of the poor. Expropriation signals the ruler's loyalty to the poor and helps him gain power as the elite becomes powerless. Model 2.3.5 shows that elite uncertainty increases the transmission of preferences towards a democratic political system. Additionally, I extend the uncertainty model to examine how the elite can influence the political preferences towards a democratic political system by using schools and the mass media it owns (model 2.3.6). It is called the Extra-elite socialisation model and helps to explore alternative mechanisms that can induce a transmission of political preferences.<sup>73</sup> The results suggest that extra-elite socialisation increases the transmission of preferences towards a democratic political system.

Furthermore, this framework studies the influence of the above factors on either the probability of democratisation or consolidation of democracy.<sup>74</sup> In countries without democratic experience, the models of inequality, elite uncertainty and extra-elite socialisation serve to examine the impact of those factors on the likelihood of democratisation. In counterpart, in countries with democratic experience, the models of the effectiveness of democracy and corruption allow examining how democratic system effectiveness affects the probability of remaining democratic. It is important because it gives a better understanding of the essential role of the political-cultural evolution of preferences in the maintenance or change of a political system.

This chapter is organised as follows. Section 2.2 describes the related literature. Section 2.3 presents the basic model with all its extension and the result of the transmission dynamics of political culture. Section 2.4 then shows how each of the factors analysed in the models and their extensions impact the path to a stable democracy. It is followed by section 2.5, which sets out the conclusions and some avenues for future research.

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<sup>73</sup> Extra-elite socialisation is a type of oblique socialisation used by the elite to influence the political preference of citizens. To do so, they use agents of socialisation that they own, such as schooling and mass media.

<sup>74</sup> Clearly, the influence of these factors comes from their impact on the transmission of political preferences.



## 2.2. Related Literature

The model for this research follows the seminal work of Bisin & Verdier (2000, 2001) on the cultural transmission of preferences. It investigates the evolution of cultural traits in a population of socially interacting individuals. It explains the persistence of cultural minorities and the two-way causality between socialisation decisions and policy outcomes. This article is also related to the paper of Ticchi, Verdier & Vindigni (2013). They develop a theory of endogenous regime transition in which the transmission of political culture matters for regime consolidation. However, neither of these papers explains how issues like inequality, political system effectiveness, corruption, political uncertainty and extra-elite socialisation affect the evolution of the political system preferences among economic classes. To demonstrate this claim, I extend Bisin & Verdier's model by introducing two homogeneous classes of agents (the poor and the economic elite) and two political systems (autocracy and democracy). It also considers the endogenous cost the elite will incur when they wish to maintain autocracy.

The formal study of the dynamics of the interaction between the political culture changes of the economic classes and the preferences for political systems in this article is, to my knowledge, new. Namely, endogenous modelling of the impact of inequality, corruption and democratic effectiveness in shaping preferences for a political system through the process of political socialisation is one of the main contributions of this essay. However, it has been widely discussed and theorised in sociology and political sciences (Almond & Verba, 1963; Easton, 1965, 1975; Inglehart, 1997; Lipset, 1959; Mauk, 2020). For instance, the political system support theories suggest that long-term experiences with a political system influence the evolution of its support (Almond & Verba, 1963; Easton, 1965, 1975; Lipset, 1959). These theories imply that long-term experience with political system effectiveness (in dealing with issues such as inequality and corruption) should affect citizens' preferences and support for a political system.

This research is related to the political economy of redistribution literature, which assumes that democracy will lead to redistribution as it extends the vote rights of the poor (Alesina & Rodrick, 1994; Bénabou, 2000; Meltzer & Richard, 1981; Roberts, 1977; Romer, 1975). It is also connected to the models that, in addition, incorporate social unrest in their analysis (e.g. Acemoglu & Robinson, 2006; Boix, 2003; Grossman, 1995; Roemer, 1985). In these models, inequality matters in shaping political transitions. Nevertheless, the approach developed here is

different. Inequality affects the expected utility of parents, influencing the transmission of political preferences, which then leads to political transitions.

This work can be contrasted with empirical work focusing on the effect of democracy on corruption (Manow, 2005; Martinola & Jackman, 2002; Mohtadi & Roe, 2003; Paldam, 2002; Rock, 2009, 2017; Sandholtz & Koetzle, 2000). An alternative point of view is taken into account here.<sup>75</sup> In this model, corruption affects the functioning of the political democratic system of the country through its effect on redistribution.<sup>76</sup>

Theoretical modelling of corruption considers its effect on political ideology, as stated by the political science literature, which studies how corruption affects political attitudes, system legitimacy and trust (Anderson & Tverdova, 2003; Bratton et al., 2005; Della Porta, 2000; Mishler & Rose, 2001; Seligson, 2002). It is also related to political ideology literature (Higgs, 1987, 2008; Hinnich & Munger, 1994; North, 2005). This model follows the view of this literature in which political ideology is considered programmatic but with a coordinating role of expectations. However, this analysis goes further and focuses on the impact of corruption in the transmission of political system preferences. In this chapter, corruption affects the political ideology of democratic citizens and the distribution of resources, expected to be improved under a democratic political system.<sup>77</sup> It will shape citizens' support for a political system and thus the probability of democratisation or democratic consolidation.

In the last two extensions of the model, the assumption that autocratic rulers favour the economic elite over the poor is relaxed. It is in line with the literature on expropriation, state autonomy, property rights and institutional constraints. According to the literature on expropriation and state autonomy, autocratic rulers have incentives to expropriate elites and exclude them from their ruling coalition to gain autonomy and power (Albertus, 2015; Albertus & Menaldo, 2012; Trimberger, 1978).<sup>78</sup> The literature on property rights and institutional constraints reinforces this idea. It suggests that under autocratic political systems, rulers have fewer institutional constraints allowing them to violate property rights easily through policy changes (Albertus, 2015; Ansell & Samuels, 2014; North, 1990; Olson, 1993). This model introduces elite uncertainty about the type of autocratic ruler based on this literature. But in

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<sup>75</sup> Corruption is considered a long-standing issue, as the level of corruption changes slowly over time.

<sup>76</sup> Much of the political economy literature link inequality and corruption when explaining why democratisation does not necessarily bring redistribution (e.g. Acemoglu & Robinson, 2006; Acemoglu et al., 2015; Hellman, 1998; Hellman et al., 2003; Houle, 2018; Uslaner & Brown, 2005).

<sup>77</sup> Citizens who prefer a democratic system because of its ideals may no longer believe in it if, once established, it does not follow its principles. As Warren (2004) states, corruption undermines the culture of democracy.

<sup>78</sup> This policy is a powerful one, it allows autocratic rulers to reduce political insecurity and ensure their survival in office by eliminating their powerful rivals, the elites (Albertus, 2015).

addition, this study focuses on the implication of elite uncertainty about the leader type in the transmission of preferences for a political system and how it can affect the probability of democratisation, a channel not yet investigated by the existing literature.

Lastly, this investigation is connected to the literature studying the role of schooling and the media as agents of political socialisation (e.g. Amnå, 2009, 2012; Sapiro, 2004).<sup>79</sup> Most of this literature emphasises the role of schooling and the media on political interest, civic engagement and political participation. Instead, this framework analyses the role of schooling and the media as agents of socialisation and examines how they affect the transmission of policy preferences for a political system. The economic elite uses these agents of socialisation as tools to influence citizens' political preferences.

## 2.3. Political preferences transmission in an unequal world

I develop an overlapping generation model of political socialisation. It is closely related to the work of Bisin & Verdier (2000, 2001). Section 2.3.1 sets out the main ideas incorporating two classes of actors, the elite and the poor, and lays the groundwork for further extensions in later subsections of this chapter.

### 2.3.1. Socialisation and political preferences

There is a continuum of agents in each generation. Each agent lives for two periods, first as a child and then as an adult. Each individual has one offspring, which makes the population stationary and normalises to one. The population is composed of two homogeneous classes of agents ( $C$ ), the poor ( $P$ ) and the economic elite ( $E$ ), such that  $C \in \{P, E\}$ . Let  $q_t$  denote the proportion of the poor in the population. There are two possible political systems, Autocracy ( $A$ ) and Democracy ( $D$ ). Among individuals, the preferences ( $p$ ) related to the political systems are of two types:  $p = \{p_i, p_j\} \in \{D, A\}$ . Letting the  $U_C^{p_i p_j}$  denote the perceived utility of a parent type  $p_i$  belonging to class  $C$  when he has a child of type  $p_j$ . I simplify the basic model by making ideological preferences symmetric,  $U_P^{DD} = U_P^{AA} = U_E^{AA} = U_E^{DD} = \bar{U}$  and  $U_P^{DA} = U_P^{AD} = U_E^{DA} = U_E^{AD} = \underline{U}$ .

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<sup>79</sup> See Moeller & de Vreese's (2013) empirical study of the differential role of the media as an agent of political socialisation in Europe.

The transmission of political system preferences in each class occurs through social learning. Children are born without well-defined preferences or traits. They acquired their preferences through the direct influence of their parents (vertical transmission) or the influence of the general population (oblique/horizontal transmission). Parents' altruism motivates them to socialise their children, despite the cost they may incur. Namely, parents perceive the welfare of their children through the filter of their preferences, "imperfect empathy". As a result, parents always want to socialise their children to their preferences (Bisin & Verdier, 2000, 2001).

The socialisation process in each class occurs in two steps. First, each parent decides how much effort to put into socialising their child to their preferences, denoted by  $\tau_C^p$ . Children are exposed to their parents' socialisation and adopt their parents' preferences with a probability of  $\tau_C^p$ . With a probability of  $1 - \tau_C^p$ , parental socialisation fails, and then the child is randomly matched with an individual of the previous generation and adopts their preferences. Let  $d_t$  be the share of people type  $D$  in the population at the time  $t$ .  $d_1(d_2)$  represents the share of democratic people among the poor (the elite). Then the probabilities that a parent of preference  $p_i$  has a child with a preference  $p_j$  ( $P_C^{p_i p_j}$ ) are:

$$(1.a) \quad \begin{aligned} P_P^{D,D} &= \tau_P^D + (1 - \tau_P^D)d_t, & P_P^{D,A} &= (1 - \tau_P^D)(1 - d_t) \\ P_P^{A,A} &= \tau_P^A + (1 - \tau_P^A)(1 - d_t), & P_P^{A,D} &= (1 - \tau_P^A)d_t \end{aligned}$$

$$(1.b) \quad \begin{aligned} P_E^{D,D} &= \tau_E^D + (1 - \tau_E^D)d_t, & P_E^{D,A} &= (1 - \tau_E^D)(1 - d_t) \\ P_E^{A,A} &= \tau_E^A + (1 - \tau_E^A)(1 - d_t), & P_E^{A,D} &= (1 - \tau_E^A)d_t. \end{aligned}$$

It follows that at  $t + 1$ , the share of adults of type  $D$  is:

$$(2) \quad d_{t+1} = d_t + (1 - d_t)[d_1 q_t \tau_P^D + d_2 (1 - q_t) \tau_E^D] - d_t \{(1 - d_2)(1 - q_t) \tau_E^A + (1 - d_1) q_t \tau_P^A\}.$$

Parents' socialisation choice depends on the parental perceived utility for their child, the transition probabilities and the parental socialisation cost.  $H(\tau_C^p)$  denotes the cost of socialisation effort by class,  $\tau_C^p$ . I assume that it is convex and guarantees an interior solution:  $H'(\cdot) \geq 0, H'(0) = 0, H''(\cdot) > 0$  and  $\lim_{\tau_C^p \rightarrow 1} H'(\tau_C^p) = \infty$ . Assuming no discount rate, each parent with preferences  $p$  chooses  $\tau_C^p$  to maximise,

$$(3) \quad U_C^p = P_C^{p_i p_i} \bar{U} + P_C^{p_i p_j} \underline{U} - H(\tau_C^p).$$

From (1.a), (1.b) and (3), it follows,

$$\begin{aligned}
(4. a) \quad U_P^D &= [\tau_P^D + (1 - \tau_P^D)d_t]\bar{U} + [(1 - \tau_P^D)(1 - d_t)]\underline{U} - H(\tau_P^D) \\
U_P^A &= [\tau_P^A + (1 - \tau_P^A)(1 - d_t)]\bar{U} + [(1 - \tau_P^A)d_t]\underline{U} - H(\tau_P^A) \\
(4. b) \quad U_E^D &= [\tau_E^D + (1 - \tau_E^D)d_t]\bar{U} + [(1 - \tau_E^D)(1 - d_t)]\underline{U} - H(\tau_P^D) \\
U_E^A &= [\tau_E^A + (1 - \tau_E^A)(1 - d_t)]\bar{U} + [(1 - \tau_E^A)d_t]\underline{U} - H(\tau_P^A).
\end{aligned}$$

The maximisation leads to a unique solution, given by the first-order condition (FOC) for each parent with a preference for a determined political system. Let  $\Delta U \equiv \bar{U} - \underline{U}$  represent the benefit for a parent of having a child with the same preferences.

$$\begin{aligned}
(5) \quad H'(\tau_P^D) &= (1 - d_t)\Delta U, H'(\tau_P^A) = d_t\Delta U \\
H'(\tau_E^D) &= (1 - d_t)\Delta U, H'(\tau_E^A) = d_t\Delta U.
\end{aligned}$$

The left side of each FOC represents the marginal cost of extra parental socialisation, and the right side represents the expected marginal benefit. Notice that at the margin, an incremental increase in parental socialisation increases the probability for a child to be vertically socialised, who otherwise would have been obliquely socialised, yielding a benefit  $\Delta U$ . The FOCs also show that parental socialisation incentive decreases when the share of individuals with the same preference increases since vertical socialisation substitutes oblique socialisation. Similarly, as the share of individuals with preference  $A$  ( $B$ ) decreases, the intensity of vertical socialisation of type  $A$  ( $B$ ) increases.<sup>80</sup> This implies that there is a steady state equilibrium (SSE) in which the size of each group remains constant ( $d_t = d_{t+1}$ ), and therefore both political preferences are represented in society. Furthermore, from (5)  $\tau_P^D = \tau_E^D$  and  $\tau_P^A = \tau_E^A$ , given the assumption of symmetry of preferences made before. Consequently, I introduce  $\tau^D = \tau_P^D = \tau_E^D$  and  $\tau^A = \tau_P^A = \tau_E^A$  on the SSE equation.<sup>81</sup>

Then from (2), it implies that in SSE,

$$(6) \quad d_t(1 - d_t)(\tau^D - \tau^A) = 0.$$

<sup>80</sup> Bisin & Verdier (2001) called this phenomenon “cultural substitution”.

<sup>81</sup> From (5), given the symmetric ideological preferences assumption  $\tau_P^D = \tau_E^D$  and  $\tau_P^A = \tau_E^A$ .

Equation (6) can be satisfied when there is a society with homogeneous preferences for a political system, either in a democratic system ( $d_t = 1$ ) or in an autocratic one ( $d_t = 0$ ). A heterogeneous equilibrium is possible when  $\tau^D = \tau^A$ , that is, when parents in the two groups with different political system preferences invest the same level of socialisation effort. From (6) and the FOCs in (5) yields a unique interior SSE.

**Lemma 1:** *There is a unique interior SSE in which  $d^* = \frac{1}{2}$  and  $H'(\tau^D) = H'(\tau^A) = \frac{\Delta U}{2}$  such that  $\tau_P^D = \tau_E^D = \tau_P^A = \tau_E^A = \tau^*$ .*

There are three SSEs. Two of which materialise in societies with homogeneous preferences for a political system. These are the SSEs at 0 and 1. The last SSE is  $d_t = d^*$ . When the share of the population with preferences for a democratic system is below the SSE,  $\underline{d} < d^*$ , democratic-type parents try harder than autocratic-type parents to socialise their children. It is because the group with autocratic preferences belongs to a larger group. As a result,  $d_{t+1}(\underline{d}) > \underline{d}$ , and over time the share of the population who prefers a democratic system will converge to  $d^*$ . On the contrary, when  $d_t = \bar{d} > d^*$ , the group with democratic preference socialises less, as they represent a larger share of the population ( $d_{t+1}(\bar{d}) < \bar{d}$ ), and over time the population's democratic share will converge to  $d^*$ . The assumption of symmetric ideological preferences allows a simplified result where the SSE  $d^* = \frac{1}{2}$ , but quantitatively the result is general.<sup>82</sup>

### 2.3.2. Inequality and the transmission of political preferences

I extend the previous model to see how inequality affects the preference for a political system in a society. In particular, in autocratic societies with high inequality, the former political system fails, as a larger share of the population is unhappy with it. The people wish to change to a better political system, fair and with better redistribution.

I consider that inequality discourages the preference for an autocratic system in a society. It does through its impact on the income distribution among classes. In autocratic systems, the ruler, who will not necessarily consider the preferences of the whole population, will decide on

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<sup>82</sup> With asymmetric preferences  $d^* = \frac{1}{2} \left\{ \frac{d_1 q_t \Delta U_P^D [d_2 (1-q_t) \Delta U_E^D + (1-d_2)(1-q_t) \Delta U_E^A] + d_2 (1-q_t) \Delta U_E^D [d_1 q_t \Delta U_P^D + (1-d_1) q_t \Delta U_P^A]}{[d_1 q_t \Delta U_P^D + (1-d_1) q_t \Delta U_P^A] [d_2 (1-q_t) \Delta U_E^D + (1-d_2)(1-q_t) \Delta U_E^A]} \right\}$  and  $d_1 q_t H'(\tau_P^D) = d_2 (1-q_t) H'(\tau_E^D) = (1-d_1) q_t H'(\tau_P^A) = (1-d_2)(1-q_t) H'(\tau_E^A)$ .

redistribution. He or she could give an advantage to one class over the other generating discontent. The disadvantaged class will prefer another political system, say democracy, which allows them, through democratic elections, to decide on a better redistribution for the majority of the population. Moreover, inequality discourages the preference for an autocratic system through its effect on the cost of maintaining autocracy. For instance, the elite will no longer prefer an autocratic political system if the cost of maintaining autocracy or the risk of expropriation is so high that the elite has no interest in continuing to finance it (Albertus & Gay, 2017).

Supposing that the country starts as an autocracy. I made three assumptions when developing this model.

**Assumption (1):** The alternative political system to autocracy is perfect democracy ( $\theta = 0$ ).

Citizens living under autocracy have no experience with a democratic political system, so they do not know how well it will work. Thus, citizens in autocratic countries will believe in the values and principles that democracy advocates. Therefore, citizens will expect political outcomes in a democratic system to be those of a perfect democracy. The parameter  $\theta$  denotes the inequality between the economic elite and the poor.

**Assumption (2):** Economic elite captures autocratic regimes at a cost,  $c(\theta)$ .

It allows the economic elite to influence policies in their favour. Nevertheless, capturing autocratic regimes is costly for the elite ( $c(\theta)$ ). The cost is assumed to increase with inequality ( $\theta$ ).<sup>83</sup> The reasons behind it are as follows. Greater inequality increases people's pressure on autocratic authorities, making them more expensive to capture. Greater inequality can lead to social unrest and revolution in a country where the only hope for an autocratic regime to survive is to use costly repression. Even in religious countries, greater inequality destabilises autocratic regimes, which are well known for using religious networks to distribute income to the poor to reduce the possible threats of regime instability.  $c(\theta)$  represents all these costs. It denotes the individual cost incurred by the elite to maintain the autocratic ruler in power.

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<sup>83</sup> I assume that  $c(\theta)$  is convex and guarantees an interior solution  $C'(\cdot) \geq 0, C'(0) = 0, C''(\cdot) > 0$  and  $\lim_{\theta \rightarrow 1} C'(\theta) = \infty$ . Moreover, in an unequal society, the elite will want to maintain an autocratic system only if  $c'(\theta) \leq u$ .

**Assumption (3):** Parents have a cognitive bias when defining the expected utility of their children.

Parental expectation about their children's utility depends on their cognitive bias about the political system in which they expect their children to live. Namely, democratic parents expect their children to live in a democracy only if they succeed in transmitting their democratic preferences. Democratic parents believe that the transmission of democratic preferences is vital for the actual arrival of democracy as a new political system.

The idea is that if children are endowed with strong democratic beliefs, they will support and fight, if necessary, for the establishment and consolidation of democracy. This will lead, in democracy, to the utility that democratic parents expected for their children. Similarly, democratic parents believe that if they fail to transmit their political preferences, they will have autocratic-type children, who will continue to live in an autocratic system and have a utility that corresponds to their class.

**Assumption (4):**  $H(\tau_C^p) = s_C^p \tau_C^{p^2}$  for all  $p \in \{A, D\}$  and  $C \in \{P, E\}$ .

$s_C^p$  represents the share of  $p$ -type individuals among class  $C$ .

Under assumption 1, in democracy, parents expect their children to have an equal share of the country's income ( $u$ ), independent of their economic class. Under assumption 2, parents know that autocratic governments favour the elite over the poor in the distribution of the country's income. Moreover, elite parents know that the benefit they receive from inequality has a cost  $c(\theta)$ . Let me define the parental expected utility as follows  $U_C^p(\theta) = (1 + \beta * \theta)u - \frac{1}{2}(1 + \beta)c(\theta)$ . It represents the expected net parental utility of having a child of type  $p$  belonging to class  $C$ . The parameter  $\theta$  denotes the inequality between the economic elite and the poor.  $\beta$  is a dichotomous variable that takes the value of 1 if the individual belongs to the elite and -1 otherwise. Notice that, under perfect democracy ( $\theta = 0$ ), the income distribution across classes is the same ( $u$ ).

The total perceived utility of a parent type  $p_i$  belonging to class  $C$  when he or she has a child of type  $p_j$  has two components. The ideological utility of parent type  $p_i$  of having a child of type  $p_j$  does not depend on class. The other is the expected net parental utility of a  $p_i$ -type parent from having a  $p_i$ -type child who belongs to class  $C$ . Then



$$U_P^{DD} = U_E^{DD} = \bar{U} + u, U_P^{DA} = \underline{U} + (1 - \theta)u, U_E^{DA} = \underline{U} + (1 + \theta)u - c(\theta) \\ U_P^{AA} = \bar{U} + (1 - \theta)u, U_E^{AA} = \bar{U} + (1 + \theta)u - c(\theta), U_P^{AD} = U_E^{AD} = \underline{U} + u.$$

Now, each parent with preferences  $p$  chooses  $\tau_C^p$  to maximise,

$$(7) \quad U_C^p = P_C^{p_i, p_i} U_C^{p_i, p_i} + P_C^{p_i, p_j} U_C^{p_i, p_j} - H(\tau_C^p).$$

Incorporating inequality in parents' expected utilities increases the overall preference for democracy among the poor since  $\Delta U - \theta u < \Delta U < \Delta U + \theta u$ . Among the elite, the preference for a political system depends on the difference between  $\theta u - c(\theta)$ . If this is positive (negative), the parents' overall preference for autocracy increases (decreases). However, when  $c(\theta) < \Delta U + \theta u$  ( $\theta u < \Delta U$ ), children from the elite (poor), who prefer an autocratic system, will choose autocracy over democracy, and parents from the elite (poor) will socialise their children, as they will still benefit from socialisation.<sup>84</sup> Nevertheless, the benefits from socialisation from elite (poor) parents who prefer an autocratic system are smaller, as their objective functions become,

$$U_P^A = [\tau_P^A + (1 - \tau_P^A)(1 - d_t)]\{\bar{U} + (1 - \theta)u\} + [(1 - \tau_P^A)d_t]\{\underline{U} + u\} - H(\tau_P^A) \\ U_E^A = [\tau_E^A + (1 - \tau_E^A)(1 - d_t)]\{\bar{U} + (1 + \theta)u - c(\theta)\} + [(1 - \tau_E^A)d_t]\{\underline{U} + u\} - H(\tau_E^A)$$

each equation has a unique solution given by its FOC,

$$(8) \quad H'(\tau_P^A) = d_t(\Delta U - \theta u) \\ H'(\tau_E^A) = d_t(\Delta U + \theta u - c(\theta))$$

analogously the FOC of a parent who prefers a democratic system are,

$$(9) \quad H'(\tau_P^D) = (1 - d_t)(\Delta U + \theta u) \\ H'(\tau_E^D) = (1 - d_t)(\Delta U - \theta u + c(\theta))$$

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<sup>84</sup> A poor child who prefers autocracy will choose an autocratic system over a democratic system because  $\bar{U} - \theta u > \underline{U}$ . A child who prefers autocracy and that belongs to the elite will also choose an autocratic system over a democratic one since  $\bar{U} + \theta u - c(\theta) > \underline{U}$ , given that  $c(\theta) < \Delta U + \theta u$ .

Let  $d_C$  be the value of  $d_t$  at which  $H'(\tau_C^D) = H'(\tau_C^A)$ . Then  $\bar{d}$  is defined as the weighted linear combination of  $d_C$  of each class.

$$(10) \quad \bar{d} = q_t \left\{ \frac{1}{2} + \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} + \frac{1}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\}.$$

Substituting (8)-(10) into (2) yields the following new SSE

$$(11) \quad d^\theta = \begin{cases} \frac{\bar{d} - [\bar{d}(1 - \bar{d})]^{1/2}}{\bar{d} - 1/2} & \text{if } q_0 \geq \frac{1}{2} - \frac{c(\theta)}{4 \left( \theta u - \frac{c(\theta)}{2} \right)} \\ \frac{\bar{d} + [\bar{d}(1 - \bar{d})]^{1/2}}{\bar{d} - 1/2} & \text{if } q_0 < \frac{1}{2} - \frac{c(\theta)}{4 \left( \theta u - \frac{c(\theta)}{2} \right)} \\ \bar{d} & \text{if } c(\theta) = 2\theta u \end{cases}$$

**Proposition 1:** Assume that Assumptions (1)-(4),  $d_0 \neq \{0,1\}$  hold. Then there is a unique SSE  $d^\theta$  such that

(1) If  $c(\theta) \geq \Delta U + \theta u$  and  $\theta u \geq \Delta U$ , then  $d_t$  converges to  $d^\theta = 1 > d^*$ .

(2) If  $c(\theta) \leq \theta u - \Delta U$  and  $\theta u \geq \Delta U$ , then  $d_t$  converges to  $d^\theta = \frac{1}{2} + \frac{c(\theta)}{4(\Delta U + \theta u - \frac{c(\theta)}{2})}$  and

$$\frac{\partial d^\theta}{\partial \theta} > 0.$$

(3) Otherwise,

(i)  $d_t$  converges to  $d^\theta \geq d^*$  and  $\frac{\partial d^\theta}{\partial \theta} > 0$  if  $q_0 \geq \frac{1}{2} - \frac{c(\theta)}{4(\theta u - \frac{c(\theta)}{2})}$  or  $c(\theta) = 2\theta u$ .

(ii)  $d_t$  converges to  $d^\theta < d^*$  and  $\frac{\partial d^\theta}{\partial \theta} > 0$  if  $q_0 < \frac{1}{2} - \frac{c(\theta)}{4(\theta u - \frac{c(\theta)}{2})}$ .

Furthermore  $d^\theta$  increases with  $\theta$  and as  $\theta \rightarrow 0$ , the SSE is characterised by  $d^\theta = d^*$ .

The main idea of Proposition 1 is that in societies with high inequality, the benefit of the poor increases when they prefer a democratic system to an autocratic one.<sup>85</sup> For the poor, high inequality makes socialisation more interesting for democratic-type parents and less interesting for autocratic-type parents. For the elite, inequality decreases the benefit of choosing an

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<sup>85</sup> A democratic political system is expected to be more egalitarian than an autocratic one since, in that system, the population majority decides policies.

autocratic system by increasing the cost of maintaining it, which reduces the return of having a child who prefers an autocratic political system. It makes socialisation less attractive for autocratic-type parents. All this suggests that the SSE with inequality must have more democratic types than the SSE without inequality.

Clearly in (1), if  $c(\theta) > \Delta U + \theta u$  and  $\theta u \geq \Delta U$  then, within the elite, a child who prefers an autocratic system will choose a democratic system, as the cost of maintaining autocracy is too high. Because of parents' imperfect empathy for their children's preferences, parents who prefer an autocratic system will choose not to socialise their children to their political preferences. Similarly, if inequality is high enough,  $\theta u \geq \Delta U$ , then poor parents who prefer an autocratic system will choose not to socialise their children, as the expected revenue loss due to inequality is too high. As a result, the consolidation of democracy occurs when  $c(\theta) > \Delta U + \theta u$  and  $\theta u > \Delta U$  for any starting  $d_t \in \{0,1\}$  as the population dynamics will evolve towards  $\lim_{t \rightarrow \infty} d_t = 1$ .

In (2), the benefit for the poor under a democratic political system is higher than the benefit of having a child with the same preferences ( $\Delta U < \theta u$ ), so democracy will be their preferred system. For the elite, if the benefit of inequality and having a child with the same preferences are higher than the cost of maintaining autocracy ( $c(\theta) < \theta u - \Delta U$ ), autocracy will be their preferred system. As a result, the population splits into two groups, each with homogeneous preferences for an opposing political system, with the poor preferring a democratic system and the elite preferring an autocratic one. It implies that the increase in inequality increases the cost of maintaining the autocratic system leading to a new SSE with more democratic types than the SSE without inequality. The SSE level  $d^\theta$  increases with  $\theta$  because higher inequality makes socialisation less attractive for autocratic-type parents compared to democratic-type parents. However, for both types of parents, an increase in inequality makes socialisation more attractive. It means that inequality, through its impact on the cost of maintaining autocracy, reduces the marginal benefit of socialisation for autocratic-type parents. Nevertheless, for them, the benefit of inequality outweighs the cost it involves since, in equilibrium, their level of socialisation is higher than their level of socialisation without inequality.

All other cases will lead to an interior SSE in which each class consists of citizens with heterogeneous preferences, as shown by (3). In general, inequality increases the preference for a democratic political system ( $q_0 \geq \frac{1}{2}$ ). I take the simplest case to explain the intuition of (3). When the cost of inequality is high enough ( $c(\theta) = 2\theta u$ ), the benefit of the two economic classes who prefer the same political system is similar. Socialisation becomes more attractive

to democratic-type parents and less attractive to autocratic-type parents across the entire population. It implies that in societies with high inequality, the cost of maintaining a system is also high, as it increases with inequality. In this case, both classes are better off under democracy, resulting in a SSE with more individuals preferring a democratic system over an autocratic system. In addition, the SSE  $d^\theta$  increases in  $\theta$  because higher inequality makes socialisation less attractive for autocratic-type parents. Therefore, in equilibrium, the level of socialisation is lower than the level of socialisation without inequality.

### 2.3.3. Inequality and the Effectiveness of Democracy

In the previous model, the assumption was that since citizens in autocratic countries have no experience with democracy, they expect political outcomes in a democratic system to be those of a perfect democracy. In this part, I relax this assumption. Instead, I assume that the country has already transitioned towards democracy and that its citizens have experience with a democratic political system. The assumptions made in developing this model are as follow.

**Assumption (5):** The political system is an imperfect democracy ( $\alpha > 0$ ).

Citizens living in a democracy have realised that the expected political outcomes as redistribution depend on the efficiency of the system  $\alpha \in [0,1]$  and that the effectiveness of democracy increases as  $\alpha \rightarrow 0$ . Thus, an increase in the effectiveness of democracy can lead to greater economic equality.

In the setup of this model, I introduce a parameter  $\alpha$ . In particular, I assume that for some  $\alpha \in [0,1]$ ,  $U_P^{DD} = \bar{U} + (1 - \alpha\theta)u \geq U_P^{AD} = \underline{U} + (1 - \alpha\theta)u$  and  $U_E^{DD} = \bar{U} + (1 + \alpha\theta)u \geq U_E^{AD} = \underline{U} + (1 + \alpha\theta)u$ .<sup>86</sup>

**Assumption (6):** The cost of investment,  $(1 - \alpha)c(\theta)$ , made by the elite to increase their de facto power increases when inequality and the effectiveness of democracy increase.

In a democracy, de jure power favours the population majority (the poor in this model). Political outcomes like redistribution depend not only on the allocation of de jure power but also on the redistribution of de facto power. Therefore, it is logical to assume that the elite will

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<sup>86</sup> The assumption that  $\alpha\theta$  could be at most equal to the level of inequality  $\theta$  is because if the level of effectiveness of democracy is lower than the level of inequality, it will not improve equality. Therefore, a democratic system will no longer be seen as a worthwhile alternative to replace an autocratic system.

invest more in de facto political power since they have the most to gain from influencing and controlling politics (i.e. blocking a fully egalitarian redistribution).<sup>87</sup>

The return on investment in de facto power is higher in highly unequal and inefficient societies. In highly unequal societies, the elite can extract more rent but at a higher cost, as rent and cost  $c(\theta)$  increase with inequality.<sup>88</sup> On the contrary, higher democratic inefficiency increases the returns of the elite investment as democratic inefficiency reduces the cost of investing in it. For instance, the low effectiveness of democracy may come from the durability of past institutions built by autocrats. It lowers the investment cost of the elite in de facto power since democracies are already constrained by other de jure institutions such as constitutions, conservative political parties and judiciaries, among others.<sup>89</sup> Even if it is not the case, low levels of democratic effectiveness lead to an easier way to capture or constrain democracy through bribery or patronage. Conversely, if democracy is highly effective,  $\alpha \rightarrow 0$ , then the elite will need to make costlier investments to gain political power, such as capturing political parties' platforms or influencing citizens' policy preferences.<sup>90</sup>

I incorporate into the model Assumption (6) in which the elite can constrain or capture democracy by increasing their de facto power at a cost  $(1 - \alpha)c(\theta)$ .<sup>91</sup>  $\frac{\partial(1-\alpha)c(\theta)}{\partial\alpha} < 0$  means that the cost of the elite to increase their de facto power increases when the effectiveness of democracy increases since democracy becomes more efficient as  $\alpha \rightarrow 0$ . When  $\theta > 0$ ,  $\Delta U \rightarrow 0$  as  $\alpha \rightarrow 0$ , then a poor type will choose democracy over autocracy. On the contrary, an elite type will choose autocracy over democracy when  $\alpha \rightarrow 0$ . However, the benefits from socialisation will be determined by  $\theta$  and  $\alpha$  as the objective functions now become,

$$U_P^A = [\tau_P^A + (1 - \tau_P^A)(1 - d_t)]\{\bar{U} + (1 - \theta)u\} + [(1 - \tau_P^A)d_t]\{\underline{U} + (1 - \alpha\theta)u\} - H(\tau_P^A)$$

$$U_E^A = [\tau_E^A + (1 - \tau_E^A)(1 - d_t)]\{\bar{U} + (1 + \theta)u - c(\theta)\} + [(1 - \tau_E^A)d_t]\{\underline{U} + (1 + \alpha\theta)u - (1 - \alpha)c(\theta)\} - H(\tau_E^A)$$

<sup>87</sup> See also Acemoglu & Robinson (2008), Mosca (1939) and Olson (1965) for a theoretical justification.

<sup>88</sup> The justification for this follows the same reasoning as in Assumption 2.

<sup>89</sup> Acemoglu et al. (2015).

<sup>90</sup> In highly unequal countries, all of these investment costs from the elite would be even higher because an efficient democracy will allow parties with totally opposing platforms to enter politics, making it more costly and difficult to align platforms on redistribution.

<sup>91</sup> I implicitly assume that the effectiveness of democracy does not depend on inequality.

yielding a unique FOC for each equation,

$$(12) \quad \begin{aligned} H'(\tau_P^A) &= d_t[\Delta U - (1 - \alpha)\theta u] \\ H'(\tau_E^A) &= d_t[\Delta U + (1 - \alpha)\theta u - \alpha c(\theta)] \end{aligned}$$

similarly, the FOCs of a parent with democratic preferences are,

$$(13) \quad \begin{aligned} H'(\tau_P^D) &= (1 - d_t)[\Delta U + (1 - \alpha)\theta u] \\ H'(\tau_E^D) &= (1 - d_t)[\Delta U - (1 - \alpha)\theta u + \alpha c(\theta)]. \end{aligned}$$

Defining  $\bar{d}^\alpha$  :

$$(14) \quad \bar{d}^\alpha = q_t \left\{ \frac{1}{2} + \frac{1}{2} \left( \frac{(1 - \alpha)\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} + \frac{1}{2} \left( \frac{\alpha c(\theta) - (1 - \alpha)\theta u}{\Delta U} \right) \right\}.$$

Substituting (12) - (14) into (2) gives the following new SSE

$$(15) \quad d^\alpha = \begin{cases} \frac{\bar{d}^\alpha - [\bar{d}^\alpha(1 - \bar{d}^\alpha)]^{1/2}}{\bar{d}^\alpha - 1/2} & \text{if } q_0 \geq \frac{1}{2} - \frac{\alpha c(\theta)}{4 \left( (1 - \alpha)\theta u - \frac{\alpha c(\theta)}{2} \right)} \\ \frac{\bar{d}^\alpha + [\bar{d}^\alpha(1 - \bar{d}^\alpha)]^{1/2}}{\bar{d}^\alpha - 1/2} & \text{if } q_0 < \frac{1}{2} - \frac{\alpha c(\theta)}{4 \left( (1 - \alpha)\theta u - \frac{\alpha c(\theta)}{2} \right)} \\ \bar{d}^\alpha & \text{if } \alpha c(\theta) = 2(1 - \alpha)\theta u \end{cases}$$

**Proposition 2:** Assume that Assumptions (3)-(6) and  $d_0 \neq \{0,1\}$  hold. Then there is a unique SSE  $d^\alpha$  such that

- (1) If  $\alpha c(\theta) \geq \Delta U + (1 - \alpha)\theta u$  and  $(1 - \alpha)\theta u \geq \Delta U$ , then  $d_t$  converges to  $d^\alpha = 1 > d^*$ .
- (2) If  $\alpha c(\theta) \leq (1 - \alpha)\theta u - \Delta U$  and  $(1 - \alpha)\theta u \geq \Delta U$ , then  $d_t$  converges to  $d^\alpha = \frac{1}{2} + \frac{\alpha c(\theta)}{4(\Delta U + (1 - \alpha)\theta u - \frac{\alpha c(\theta)}{2})}$  and  $\frac{\partial d^\alpha}{\partial \alpha} < 0$ .

(3) Otherwise,

(i)  $d_t$  converges to  $d^\alpha \geq d^*$  and  $\frac{\partial d^\alpha}{\partial \alpha} < 0$  if  $q_0 \geq \frac{1}{2} - \frac{\alpha c(\theta)}{4\left((1-\alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)}$  or

$$\alpha c(\theta) = 2(1 - \alpha)\theta u.$$

(ii)  $d_t$  converges to  $d^\alpha < d^*$  and  $\frac{\partial d^\alpha}{\partial \alpha} < 0$  if  $q_0 < \frac{1}{2} - \frac{\alpha c(\theta)}{4\left((1-\alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)}$ .

Furthermore,  $d^\alpha$  decreases with  $\alpha$  and as  $\alpha \rightarrow 1$ , then  $d^\alpha \rightarrow d^* < d^\theta$ .

The intuition of Proposition 2 is simple if democracy is not as effective as a democratic-type parent expects, the analysis results in a SSE  $d^\alpha$  that lies between  $d^*$  and  $d^\theta$ . As the effectiveness of democracy decreases from 0 to 1, in the SSE, the share of citizens who prefer a democratic system falls from  $d^\theta$  to  $d^*$ . The explanation is that a decrease in the effectiveness of a democratic system makes socialisation less attractive for democratic-type parents compared to a perfect democratic system. On the contrary, for an autocratic type parent, a decrease in the effectiveness of a democratic makes socialisation more attractive compared to a perfect democratic system. As a result, at the equilibrium, the level of socialisation effort is lower than the one found in a perfect democratic system.

#### 2.3.4. Political preferences: Inequality and Corruption

The search for a change of a political system from autocracy to democracy and its consolidation is affected by citizens' ideological preferences, inequality, and the effectiveness of democracy. Corruption weakens democratic political systems as it prevents them from delivering what citizens expect. In countries with high corruption, ideological preferences for a political system matter less since citizens do not trust the implementation of the policies proposed by any political system. Moreover, corruption encumbers equality. In highly unequal societies, elites possess a large share of resources that they can use to buy influence and undermine democracies. When elites capture democracy through corruption, inequality tends to increase while the effectiveness of democracy tends to decrease, as policies favour elites over the poor.

The introduction of corruption in model 2.3.2 weakens the preference for democracy. The level of corruption is assumed exogenous, as corruption is a longstanding phenomenon with very low variation over time.

**Assumption (7):** Corruption affects the ideological preferences and the redistributive outcomes under democracy.

In specific, I assume that for some  $\mathfrak{c} \in [0,1]$ , the perceived utility of a parent type  $p_i$  belonging to the class  $C$  when he has a child of type  $D$  becomes,

$$\begin{aligned} U_P^{DD} &= (1 - \mathfrak{c})[\bar{U} + u] + \mathfrak{c}[\underline{U} + (1 - \theta)u] \\ U_P^{AD} &= (1 - \mathfrak{c})[\underline{U} + u] + \mathfrak{c}[\bar{U} + (1 - \theta)u]. \end{aligned}$$

Notice that as corruption increases, the preference of the poor for a democratic system decreases and the preference of the elite for a democratic system increases. That is, as  $\mathfrak{c} \rightarrow 1$ , democratic types among the poor become indifferent between an autocratic and a democratic system.

**Assumption (8):** Corruption decreases the cost of inequality,  $(1 - \mathfrak{c})c(\theta)$ .

In autocracy or democracy, a higher level of corruption facilitates the capture of political power by the elite. When citizens experience the same problems of inequality under democracy as they did under autocracy due to corruption, this erodes citizens' beliefs in the democratic system. As a result, corruption leads citizens to be indifferent between democracy and autocracy and to believe that whatever the political system, nothing will change. In a democracy, the erosion of citizens' beliefs decreases the cost of a coup or the use of corrupt means to gain political power. A bad long-term experience with democracy will decrease the cost of maintaining autocracy as the new regime. Introducing this assumption into the perceived utilities of a type  $p_i$  parent from the elite from having a child type  $p_i$  yields to,

$$\begin{aligned} U_E^{DD} &= (1 - \mathfrak{c})[\bar{U} + u] + \mathfrak{c}[\underline{U} + (1 + \theta)u - (1 - \mathfrak{c})c(\theta)] \\ U_E^{AD} &= (1 - \mathfrak{c})[\underline{U} + u] + \mathfrak{c}[\bar{U} + (1 + \theta)u - (1 - \mathfrak{c})c(\theta)] \end{aligned}$$

and

$$\begin{aligned} U_E^{AA} &= \bar{U} + (1 + \theta)u - (1 - \mathfrak{c})c(\theta) \\ U_E^{DA} &= \underline{U} + (1 + \theta)u - (1 - \mathfrak{c})c(\theta). \end{aligned}$$

Not surprisingly, democratic-type parents belonging to the elite still prefer a democratic system to an autocratic one since corruption favour the elite over the poor. Corruption also



affects the cost of maintaining autocracy through its effect on democracy's effectiveness in redistributing wealth,  $\frac{\partial(1-\mathfrak{C})c(\theta)}{\partial \mathfrak{C}} < 0$ . The objective functions of a democratic-type parent become,

$$\begin{aligned} U_P^D &= [\tau_P^D + (1 - \tau_P^D)d_t]\{(1 - \mathfrak{C})[\bar{U} + u] + \mathfrak{C}[\underline{U} + (1 - \theta)u]\} \\ &\quad + [(1 - \tau_P^D)(1 - d_t)]\{\underline{U} + (1 - \theta)u\} - H(\tau_P^D) \\ U_E^D &= [\tau_E^D + (1 - \tau_E^D)d_t]\{(1 - \mathfrak{C})[\bar{U} + u] + \mathfrak{C}[\underline{U} + (1 + \theta)u]\} \\ &\quad + [(1 - \tau_E^D)(1 - d_t)]\{\underline{U} + (1 + \theta)u - (1 - \mathfrak{C})c(\theta)\} - H(\tau_E^D) \end{aligned}$$

the FOCs for a democratic type are,

$$\begin{aligned} (16) \quad H'(\tau_P^D) &= (1 - d_t)(1 - \mathfrak{C})[\Delta U + \theta u] \\ H'(\tau_E^D) &= (1 - d_t)(1 - \mathfrak{C})\{\Delta U - \theta u + (1 - \mathfrak{C})c(\theta)\} \end{aligned}$$

likewise, the FOCs for an autocratic type are,

$$\begin{aligned} (17) \quad H'(\tau_P^A) &= d_t(1 - \mathfrak{C})[\Delta U - \theta u] \\ H'(\tau_E^A) &= d_t(1 - \mathfrak{C})\{\Delta U + \theta u - (1 - \mathfrak{C})c(\theta)\}. \end{aligned}$$

Let me define  $\bar{d}^{\mathfrak{C}}$  as follows:

$$(18) \quad \bar{d}^{\mathfrak{C}} = q_t \left\{ \frac{1}{2} + \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} + \frac{1}{2} \left( \frac{(1 - \mathfrak{C})c(\theta) - \theta u}{\Delta U} \right) \right\}.$$

Then substituting (16) - (18) into (2) results in the following SSE

$$(19) \quad d^{\mathfrak{C}} = \begin{cases} \frac{\bar{d}^{\mathfrak{C}} - [\bar{d}^{\mathfrak{C}}(1 - \bar{d}^{\mathfrak{C}})]^{1/2}}{\bar{d}^{\mathfrak{C}} - 1/2} & \text{if } q_0 \geq \frac{1}{2} - \frac{(1 - \mathfrak{C})c(\theta)}{4 \left( \theta u - \frac{(1 - \mathfrak{C})c(\theta)}{2} \right)} \\ \frac{\bar{d}^{\mathfrak{C}} + [\bar{d}^{\mathfrak{C}}(1 - \bar{d}^{\mathfrak{C}})]^{1/2}}{\bar{d}^{\mathfrak{C}} - 1/2} & \text{if } q_0 < \frac{1}{2} - \frac{(1 - \mathfrak{C})c(\theta)}{4 \left( \theta u - \frac{(1 - \mathfrak{C})c(\theta)}{2} \right)} \\ \bar{d}^{\mathfrak{C}} & \text{if } (1 - \mathfrak{C})c(\theta) = 2\theta u \end{cases}$$

**Proposition 3:** Assume that Assumptions (3)-(4),(7)-(8) and  $d_0 \neq \{0,1\}$  hold. Then there is a unique SSE  $d^c$  such that

(1) If  $(1 - c)c(\theta) \geq \Delta U + \theta u$  and  $\theta u \geq \Delta U$ , then  $d_t$  converges to  $d^c = 1 > d^*$ .

(2) If  $(1 - c)c(\theta) \geq \theta u - \Delta U$  and  $\theta u \geq \Delta U$ , then  $d_t$  converges to

$$d^c = \frac{1}{2} + \frac{(1-c)c(\theta)}{4(\Delta U + \theta u - \frac{(1-c)c(\theta)}{2})} \text{ resulting in } \frac{\partial \tau_c^p}{\partial c} < 0 \text{ and } \frac{\partial d^c}{\partial c} < 0.$$

(3) Otherwise, there is an interior SSE where  $\frac{\partial \tau_c^p}{\partial c} < 0$  and in which

(i)  $d_t$  converges to  $d^c \geq d^*$  and  $\frac{\partial d^c}{\partial c} < 0$  if  $q_0 \geq \frac{1}{2} - \frac{(1-c)c(\theta)}{4(\theta u - \frac{(1-c)c(\theta)}{2})}$  or

$$(1 - c)c(\theta) = 2\theta u.$$

(ii)  $d_t$  converges to  $d^c < d^*$  and  $\frac{\partial d^c}{\partial c} < 0$  if  $q_0 < \frac{1}{2} - \frac{(1-c)c(\theta)}{4(\theta u - \frac{(1-c)c(\theta)}{2})}$ .

Furthermore,  $d^c$  decreases with  $c$  and as  $c \rightarrow 1$ , then  $d^c \rightarrow d^* = \frac{1}{2} < d^\theta$  and  $\tau_c^p = 0$ .

These results suggest that as corruption increases, it discourages socialisation for poor citizens who prefer a democratic system because it encumbers redistribution. It also discourages socialisation for the share of the elite that prefers an autocratic system as it makes a democratic system more attractive to them. That explains why the socialisation effort at the equilibrium is lower than the one found in a perfect democratic system,  $\tau_c^{p^c} < \tau_c^{p^\theta}$ . Moreover, an increase in corruption reduces the benefit of preferring a democratic system among parents in each class, decreasing the return of having a child who has democratic political system preferences. It implies that the SSE of the model that incorporates corruption is lower than the SSE of those that do not. Furthermore, the level of SSE  $d^c$  decreases with corruption since the higher the level of corruption is, the lower the attractiveness of socialising for parents who prefer a democratic system within each class will be.

If the conditions of (1) hold, then this society will become a consolidated democracy for any starting  $d_t \in \{0,1\}$  as the population dynamics will evolve towards  $\lim_{t \rightarrow \infty} d_t = 1$  as stated in part (1) of Proposition 1.

In (2) when  $(1 - c)c(\theta) \geq \theta u - \Delta U$  and  $\Delta U < \theta u$ ,  $d^* < d^c < d^\theta$ . It highlights that the elite prefer an autocratic system when inequality is high, but the cost of maintaining autocracy is lower than the benefits from inequality. The poor, in contrast, prefer a democratic system. Clearly, there is neither vertical socialisation from parents belonging to the elite for a democratic system nor vertical socialisation from parents belonging to the poor for an autocratic

system since, in both cases, their children do not get benefit from having the same political preferences as them.<sup>92</sup> Therefore, there is a split of preferences among economic classes where the elite prefer an autocratic system and the poor a democratic system.  $d^* < d^c$ , as the cost of maintaining autocracy increases with inequality, which, in turn, increases the share of individuals who prefer a democratic system.  $d^c < d^\theta$ , given that when corruption exists in societies, the effect of inequality on the cost of maintaining autocracy decreases as corruption increases.

In (3), when  $c < 1$  and  $(1 - c)c(\theta) = 2\theta u$ ,  $d^c = d^\theta$ , implying that the share of individuals who prefer a democratic system will remain the same as in societies without corruption. It does not mean that corruption does not affect the SSE but rather that it affects similarly citizens who prefer democracy and citizens who prefer autocracy. Therefore, the gain of an autocratic-type parent of non-socialising his or her child cancels out the loss of a democratic-type parent of socialising his or her child, resulting in  $\tau_c^{p^c} < \tau^*$ .<sup>93</sup> However, in the general case,  $d^c$  is smaller than  $d^\theta$ , as  $d^c$  decreases with corruption when  $q_0 \geq \frac{1}{2} -$

$$\frac{(1-c)c(\theta)}{4\left(\theta u - \frac{(1-c)c(\theta)}{2}\right)}.$$
<sup>94</sup>

High levels of corruption increase citizen mistrust in a democratic political system. It hinders political equality and encumbers redistribution. Corruption, therefore, renders a democratic system incapable of delivering what citizens expect of it, a better redistribution. That is why, when  $c \rightarrow 1$ , corruption is so high that it neutralises the effect of inequality over the share of citizens who prefer a democratic system. Thus,  $d^c \rightarrow d^*$ . Moreover, although the effect of corruption appears to be similar to that found in the democracy effectiveness model, it is not. Corruption is worse, as it degrades citizens' beliefs in any possible political system. It explains why, in equilibrium, the parental socialisation effort is lower than those found in previous models ( $\tau_c^{p^c} < \tau_c^{p^a}$ ). Notice also that as  $c \rightarrow 1$ ,  $\tau_c^{p^c} \rightarrow 0$ .<sup>95</sup> Furthermore, this suggests that in highly corrupted countries, other agents of oblique socialisation (schooling, the media and

<sup>92</sup> If inequality is high enough,  $\Delta U < \theta u$ , a child belonging to the economically poor class and having an autocratic type of parent, prefers a democratic system to an autocratic one. Then since parents have imperfect-empathy preferences over the choice made by their children, they will choose not to socialise their children to their political preferences. The same logic applies to a child belonging to the economic elite that has a democratic type parent.

<sup>93</sup>  $\frac{\partial U_E^{AD}}{\partial c} = -\frac{\partial U_P^{DD}}{\partial c} = \Delta U + \theta u$  and  $\frac{\partial U_P^{AD}}{\partial c} = -\frac{\partial U_E^{DD}}{\partial c} = \Delta U - \theta u$ .

<sup>94</sup> For example, suppose the effect of corruption is  $2kc$  for democratic types and  $2(1 - k)c$  for autocratic ones, where  $k \in \langle 0, 1 \rangle$ . Then for all  $k \neq \frac{1}{2}$ ,  $d^c < d^\theta$  as  $\frac{\partial d^c}{\partial c} < 0$ . For  $k = \frac{1}{2}$ , the impact of corruption is similar for both types of individuals as in the special case of model 2.3.4.

<sup>95</sup> From FOCs (16) and (17) as  $c \rightarrow 1$ ,  $\tau_c^p \rightarrow 0$  for all  $p \in \{D, A\}$  and  $C \in \{P, E\}$ .

religion) can play a significant role in politics, as they can strongly influence the preferences of citizens with low levels of parental socialisation.

### 2.3.5. Political preferences: Inequality with Elite Uncertainty

As discussed in the introduction, the economic elite will not necessarily support autocracy, as they are uncertain about how the autocratic leader will be. An autocratic system may not benefit the elite over the poor since, under autocracy, the ruler has fewer constraints when governing, making it easier for the ruler to violate property rights and expropriate the elite.

This model analyses an alternative reason that might lead to a transition towards democracy, the elite uncertainty about the autocratic ruler type. I relax the assumption of model 2.3.2 that the elite capture the autocratic system at a cost  $c(\theta)$ . However, I still assume that the country starts as an autocracy. In addition, I make the following assumption to allow for the possibility of different types of autocratic rules.

**Assumption (9):** The elite is uncertain about the autocratic leader type,  $\phi$ .

The potential autocratic ruler can be of two types defined by  $\phi = \{0,1\}$ . It represents the ruler's alignment with the interests of a class. In particular, when  $\phi = 0$ , the autocratic ruler is aligned with the interest of the poor and will have strong incentives to expropriate the elite's wealth and redistribute it among all the individuals to reduce inequality. When  $\phi = 1$ , the autocratic ruler is aligned with the interest of the economic elite and has no interest in reducing inequality.  $p^\phi = \text{Probability}(\phi = 0)$  is the probability that the autocratic ruler aligns with the interest of the poor. The average type of autocratic leader  $\mu = 1 - p^\phi$  may differ across countries.<sup>96</sup> The type of ruler also affects the cost of maintaining autocracy since the elite pay  $c(\theta)$  only when the leader is of type  $\phi = 1$ ,  $\frac{\partial(1-p^\phi)c(\theta)}{\partial p^\phi} < 0$ . Then the perceived utility of a parent type  $p_i$  belonging to the class  $C$  when he or she has a child who prefers an autocratic system becomes,

$$U_P^{AA} = \bar{U} + p^\phi u + (1 - p^\phi)(1 - \theta)u \geq U_P^{DA} = \underline{U} + p^\phi u + (1 - p^\phi)(1 - \theta)u \text{ and } U_E^{AA} = \bar{U} + p^\phi u + (1 - p^\phi)[(1 + \theta)u - c(\theta)] \geq U_E^{DA} = \underline{U} + p^\phi u + (1 - p^\phi)[(1 + \theta)u - c(\theta)].$$


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<sup>96</sup> Economic elites may expect potential autocrats to be more in their favour in one country than in another.

Note that the uncertainty about the type of autocratic ruler is measured by the variance  $v = p^\phi(1 - p^\phi)$ .<sup>97</sup> If  $p^\phi > \frac{1}{2}$ , the elite prefers a democratic system since the higher  $p^\phi$  is, the higher the probability that the autocratic leader will expropriate the elite. Then the lower  $p^\phi \in \left[\frac{1}{2}, 1\right]$  is, the higher the elite uncertainty about the autocratic ruler type will be, and the higher the elite's preference for a democratic system will be  $\left(\frac{\partial \Delta U_E^D}{\partial v} > 0, \frac{\partial \Delta U_E^A}{\partial v} < 0\right)$ .<sup>98</sup> The objective function of an autocratic-type parent becomes,

$$\begin{aligned} U_P^A &= [\tau_P^A + (1 - \tau_P^A)(1 - d_t)]\{\bar{U} + p^\phi u + (1 - p^\phi)(1 - \theta)u\} \\ &\quad + [(1 - \tau_P^A)d_t][\underline{U} + u] - H(\tau_P^A) \\ U_E^A &= [\tau_E^A + (1 - \tau_E^A)(1 - d_t)]\{\bar{U} + p^\phi u + (1 - p^\phi)[(1 + \theta)u - c(\theta)]\} \\ &\quad + [(1 - \tau_E^A)d_t][\underline{U} + u] - H(\tau_E^A). \end{aligned}$$

There is a unique solution for each equation given by its FOC,

$$\begin{aligned} (20) \quad H'(\tau_P^A) &= d_t\{\Delta U - (1 - p^\phi)\theta u\} \\ H'(\tau_E^A) &= d_t\{\Delta U - (1 - p^\phi)(c(\theta) - \theta u)\} \end{aligned}$$

similarly, the FOCs for a democratic type are,

$$\begin{aligned} (21) \quad H'(\tau_P^D) &= (1 - d_t)\{\Delta U + (1 - p^\phi)\theta u\} \\ H'(\tau_E^D) &= (1 - d_t)\{\Delta U + (1 - p^\phi)(c(\theta) - \theta u)\}. \end{aligned}$$

Defining  $\bar{d}^\phi$  as follows:

$$(22) \quad \bar{d}^\phi = q_t \left\{ \frac{1}{2} + \frac{(1 - p^\phi)}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} + \frac{(1 - p^\phi)}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\}.$$

Substituting (20)- (22) into (2) results in,

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<sup>97</sup> The variance of the elite uncertainty is at its maximum for  $p^\phi = \frac{1}{2}$ .

<sup>98</sup> For the economic elite, the benefice of a democratic-type parent of having a child of his or her type is  $\Delta U_E^D = [\Delta U - \theta u] + p^\phi \theta u + c(\theta)$ .

$$(19) \quad d^\phi = \begin{cases} \frac{\bar{d}^\phi - [\bar{d}^\phi(1 - \bar{d}^\phi)]^{1/2}}{\bar{d}^\phi - 1/2} & \text{if } q_0 \geq \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)} \\ \frac{\bar{d}^\phi + [\bar{d}^\phi(1 - \bar{d}^\phi)]^{1/2}}{\bar{d}^\phi - 1/2} & \text{if } q_0 < \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)} \\ \bar{d}^\phi & \text{if } c(\theta) = 2\theta u \end{cases}$$

**Proposition 4:** Assume that Assumptions (3)-(4),(9) and  $d_0 \neq \{0,1\}$  hold. Then there is a unique SSE  $d^\phi$  such that

(1) If  $(1 - p^\phi)(c(\theta) - \theta u) \geq \Delta U$  and  $(1 - p^\phi)\theta u \geq \Delta U$ , then  $d_t$  converges to  $d^\phi = 1 > d^*$ .

(2) If  $(1 - p^\phi)(\theta u - c(\theta)) \geq \Delta U$  and  $(1 - p^\phi)\theta u \geq \Delta U$ , then  $d_t$  converges to  $d^\phi = \frac{1}{2} + \frac{(1-p^\phi)c(\theta)}{4(\Delta U + (1-p^\phi)[\theta u - \frac{c(\theta)}{2}])}$  and  $\frac{\partial d^\phi}{\partial p^\phi} < 0$ .

(3) Otherwise,

(i)  $d_t$  converges to  $d^\phi \geq d^*$  and  $\frac{\partial d^\phi}{\partial p^\phi} < 0$  if  $q_0 \geq \frac{1}{2} - \frac{c(\theta)}{4(\theta u - \frac{c(\theta)}{2})}$  or  $c(\theta) = 2\theta u$ .

(ii)  $d_t$  converges to  $d^\phi < d^*$  and  $\frac{\partial d^\phi}{\partial p^\phi} < 0$  if  $q_0 < \frac{1}{2} - \frac{c(\theta)}{4(\theta u - \frac{c(\theta)}{2})}$ .

Furthermore,  $d^\phi$  increases with elite uncertainty when  $p^\phi > \frac{1}{2}$ .

Logically, the SSE in (1) only exists if  $p^\phi \neq 1$ . It leads to a homogenisation of preferences in favour of a democratic political system since autocratic-type parents of neither class intend to socialise their children to their political traits.

The assumption that autocratic rulers are pro-elite is relaxed in this model. It explains why the share of individuals who prefer democracy decreases when the probability of the autocratic ruler favours the poor increases. The poor who suffer from inequality does not necessarily require a democratic system to reduce it since, in this model, the alignment of the interests of the autocratic ruler with those of the poor can also reduce inequality.

Not surprisingly, in (2) and (3) (i), as  $p^\phi$  goes from 0 to 1, the SSE proportion of individuals who prefer a democratic system goes from  $d^\theta$  to  $d^*$ . It is because when both political systems consider the issue of inequality, the benefit for the portion of individuals who prefer a democratic system reduces, making socialisation less attractive to them ( $\tau_c^{p_i \phi} < \tau_c^{p_i \theta}$ ). That is,

as  $p^\phi$  increases, the level of wealth redistribution increases so that when  $p^\phi \rightarrow 1$ , citizens have the same level of wealth regardless of their economic class. Therefore, when the autocratic leader has the interest of the poor at heart ( $\phi = 0$ ), only the ideological preferences matter for the citizens to prefer a determined political system,  $\tau_c^{p_i^\phi} \rightarrow \tau_c^{p_i^*}$  and  $d^\phi \rightarrow d^*$ . On the contrary, when  $p^\phi \rightarrow 0$ , the autocratic leader has no interest in redistributing wealth, therefore the level of inequality matters when citizens decide which political system they prefer,  $\tau_c^{p_i^\phi} \rightarrow \tau_c^{p_i^\theta}$  and  $d^\phi \rightarrow d^\theta$ .

Moreover, when  $p^\phi > \frac{1}{2}$ , the elite prefer a democratic system since the higher  $p^\phi \in \left[\frac{1}{2}, 1\right]$ , the more aligned the autocratic ruler is with the interest of the poor. Specifically, when  $p^\phi$  goes from 1 to  $\frac{1}{2}$ , elite uncertainty “ $v$ ” and  $d^\phi$  increase. It implies that the higher the elite uncertainty, the higher the proportion of individuals who prefer democracy. There are two reasons for this. Under autocracy, the decrease of  $p^\phi$  decreases the likelihood of a more equalitarian society, which increases the benefit for the share of individuals who prefer a democratic system, making socialisation more attractive to them. Lastly, for autocratic-type parents, a decrease of  $p^\phi$  decreases for poor parents the benefit of preferring an autocratic system, which induces them to socialise less, and it decreases for the parents from the elite the incentive to socialise their children, as the risk of expropriation is high since  $p^\phi > \frac{1}{2}$ .<sup>99</sup>

### 2.3.6. Political preferences: Extra-elite socialisation

In the previous models, I analysed the role of family and peers as agents of socialisation and their effect on the evolution of preference for a political system among individuals. However, other agents of socialisation, such as schooling and the media, affect citizens’ political preferences. These additional agents of socialisation play an important role in individuals’ political preferences as they influence our political views.<sup>100</sup> Not surprisingly, autocratic regimes have controlled most media coverage and schooling over time. It is still seen today in autocratic countries, such as North Korea, Turkmenistan, Eritrea, China, Russia, Vietnam, Syria, Iran, Laos, and Cuba, among others. This extension considers schooling and the media

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<sup>99</sup> For  $p^\phi > \frac{1}{2}$ , the risk of expropriation increases when  $p^\phi$  increases, as  $\frac{\partial d^\phi}{\partial v} = \frac{\partial d^\phi}{\partial p^\phi} * \frac{1}{(1-2p^\phi)} > 0$  becomes larger as  $p^\phi$  increases.

<sup>100</sup> The media is a powerful socialising tool not only because of the information that it provides but also because there are messages that we receive from the media without being aware of (Subliminal messages). See also Amnå et al. (2009) and Amnå (2012) for a literature review.

as extra agents of elite socialisation since they favour the elite's political preferences. It is the case when the autocratic regime aligns with the interest of the economic elite. It can also occur in democracy in countries where the elite own a large share of the media and the public school system.

In the previous model, elite uncertainty increases the preference for a democratic system among the economic elite. Thus, when  $p^\phi > \frac{1}{2}$ , democracy is the preferred system for the elite. For simplicity, let me take the extreme case in which the autocratic regime will favour the poor ( $p^\phi = 1$ ).

**Assumption (10):** The effectiveness of the elite's socialisation agents ( $\varepsilon$ ) determines the degree of elite influence on citizens' political preferences and  $p^\phi = 1$ .

In this model setup, agents of socialisation, such as education and the media, tilt the socialisation process in favour of the political system preferred by the elite. Formally, be  $\varepsilon \in [0,1]$  the effectiveness of the extra-elite socialisation and after incorporating it into our model of inequality with elite uncertainty. As seen in the previous model, elite uncertainty increases the preference for a democratic system among the economic elite. Thus, democracy is the preferred system for the elite, given that  $p^\phi = 1$ .<sup>101</sup> The probability that a child who was not socialised by his autocratic-type parent prefers an autocratic system is now  $(1 - \varepsilon)(1 - d_t)$  (and it is  $1 - (1 - \varepsilon)(1 - d_t)$  for a child who was not socialised by his democratic-type parent). Namely, the more extra-elite socialisation increases, the less likely it is that oblique socialisation will result in a preference for an autocratic political system.

For simplicity, I take the following form of the cost of socialisation  $H(\tau_C^p) = \frac{(\tau_C^p)^2}{2}$ .<sup>102</sup> Then the transition dynamics equation becomes,

$$(24) \quad d_{t+1} = d_t + (1 - d_t)\{\varepsilon + (1 - \varepsilon)[d_1 q_t \tau_P^D + d_2 (1 - q_t) \tau_E^D]\} - [\varepsilon + d_t (1 - \varepsilon)][(1 - d_1) q_t \tau_P^A + (1 - d_2) (1 - q_t) \tau_E^A].$$

Each parent, democratic and autocratic type depending on his or her class, maximises,

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<sup>101</sup> Although the assumptions made simplify the model, the results are general. In societies with a high probability of expropriation, elites are expected to prefer democracy because authoritarian regimes often have the institutional capacity and political authority to make redistribution possible. Democratic regimes, instead, are often so saddled with checks and balances that allow the elite to regain the political power necessary to block any attempt to redistribute. For instance, the elite could capture veto power through the legislature or the judiciary and stop redistribution.

<sup>102</sup> Implicitly,  $d_1 = d_2 = \frac{1}{2}$ .



$$\begin{aligned}
U_P^D &= [\tau_P^D + (1 - \tau_P^D)[1 - (1 - \varepsilon)(1 - d_t)]]\{\bar{U} + u\} + \\
&\quad [(1 - \tau_P^D)(1 - \varepsilon)(1 - d_t)]\{\underline{U} + u\} - H(\tau_P^D) \\
U_E^D &= [\tau_E^D + (1 - \tau_E^D)[1 - (1 - \varepsilon)(1 - d_t)]]\{\bar{U} + u\} + \\
&\quad [(1 - \tau_E^D)(1 - \varepsilon)(1 - d_t)]\{\underline{U} + u\} - H(\tau_E^D) \\
\\ 
U_P^A &= [\tau_P^A + (1 - \tau_P^A)(1 - \varepsilon)(1 - d_t)]\{\bar{U} + u\} + \\
&\quad [(1 - \tau_P^A)[1 - (1 - \varepsilon)(1 - d_t)]]\{\underline{U} + u\} - H(\tau_P^A) \\
U_E^A &= [\tau_E^A + (1 - \tau_E^A)(1 - \varepsilon)(1 - d_t)]\{\bar{U} + u\} + \\
&\quad [(1 - \tau_E^A)[1 - (1 - \varepsilon)(1 - d_t)]]\{\underline{U} + u\} - H(\tau_E^A),
\end{aligned}$$

which has a unique solution for each preference group and class given by the FOCs,

$$\begin{aligned}
(25) \quad \tau_P^D &= (1 - \varepsilon)(1 - d_t)\Delta U \\
\tau_E^D &= (1 - \varepsilon)(1 - d_t)\Delta U
\end{aligned}$$

$$\begin{aligned}
(26) \quad \tau_P^A &= [1 - (1 - \varepsilon)(1 - d_t)]\Delta U \\
\tau_E^A &= [1 - (1 - \varepsilon)(1 - d_t)]\Delta U.
\end{aligned}$$

Then the population will converge to a new SSE as follow,

**Proposition 5:** Assume that Assumptions (3)-(4), (10) and  $d_0 \neq \{0,1\}$  hold. Then there is a unique interior SSE characterised by  $d^\varepsilon = \frac{1}{2} + k > d^\phi$  with  $\tau_P^D = \tau_E^D = \tau^D < \tau^\phi$  and  $\tau_P^A = \tau_E^A = \tau^A > \tau^\phi$ .<sup>103</sup> Furthermore,  $d^\varepsilon$  increases with the effectiveness of the extra-elite socialisation favouring democracy ( $\varepsilon$ ), as when  $\varepsilon \rightarrow 1$ , there is an increase in  $\tau^A$  while  $\tau^D \rightarrow 0$  and, therefore, the proportion of democratic types slowly enlarges with  $\lim_{t \rightarrow \infty} d_t = 1$ .

Not surprisingly, this Proposition suggests that when the risk of expropriation for the elite is high, the share of citizens from the elite who prefers a democratic system increases, and therefore, they can use other forms of socialisation to ensure the preference for a democratic

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<sup>103</sup>  $k = \frac{\sqrt{2\varepsilon\Delta U + (1+\varepsilon^2)(\Delta U)^2 - 6\varepsilon[-\Delta U + \Delta U^2]} - (1+\varepsilon)\Delta U}{4(1-\varepsilon)\Delta U}$ .

political system in a society. Extra-elite socialisation affects parental socialisation towards a determinate political system for both types. For the share of individuals who prefer a democratic system, parental socialisation decreases as  $\varepsilon$  increases, as these mechanisms of transmission of political preferences substitute each other.<sup>104</sup> In contrast, for the share of individuals who prefer an autocratic system, parental socialisation increases with  $\varepsilon$ , as oblique socialisation for that system decreases with  $\varepsilon$ , increasing their marginal return of socialising.

Moreover, extra-elite socialisation leads the oblique socialisation towards the preference for a democratic system that, without it, is only randomly matched to an older generation individual. Precisely, as  $\varepsilon$  increases, the probability that oblique socialisation results in a preference for an autocratic system decreases, which in turn, in the SSE, increases the share of citizens who prefer a democratic system. Furthermore, when  $\varepsilon \rightarrow 1$ , the response of parents who prefer an autocratic system is to increase  $\tau^A$  since the marginal benefit of socialising increases for them, and there is no oblique socialisation for their type. Thus, when extra-elite socialisation is implemented,  $\tau^A$  increases and remains fixed over time as it no longer depends on  $d_t$ , while  $\tau^D \rightarrow 0$  as oblique socialisation for a democratic system is so effective that it substitutes direct parental socialisation. This high effectiveness of extra-elite socialisation leads in the very long term to a population with homogeneous preferences.

## 2.4. Discussion

The models developed in the previous section point out that long-standing issues (inequality and corruption) and contextual factors affect the transmission of preferences for a political system. I use the implication of these models to argue that through their effect on the transmission of political preferences towards a political system, these factors affect the stability of a democratic political system. Suppose that the probability of becoming or remaining a democracy depends on the long-run equilibrium dynamics of the population that supports (prefers) democracy. I believe it is reasonable to expect that; an autocratic country with a high proportion of citizens who prefer a democratic political system will have a higher probability of democratisation. Likewise, a democratic country with a high proportion of citizens who prefer a democratic political system will have a higher probability of remaining a democracy.

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<sup>104</sup> Bisin & Verdier (2001) show that vertical and oblique cultural transmission are cultural substitutes in populations that have heterogeneous population traits.

The equilibrium of the share of citizens who prefer a democratic system,  $d^e$ , represents the different SSEs found in section 2.3.<sup>105</sup> Then when countries start as autocracies, models 2.3.2, 2.3.5 and 2.3.6 predict that an increase in inequality ( $\theta$ ), elite uncertainty ( $v$ ) and the effectiveness of extra-elite socialisation ( $\varepsilon$ ) will increase the probability of becoming a democracy. Model 2.3.2 suggest that an increase in inequality in autocratic countries increases citizens' support for a democratic political system and, therefore, the probability of becoming a democracy. The idea is that the higher the level of inequality, the greater the citizens' dissatisfaction with autocracy, the greater the cost of maintaining it and the greater the expectation of a better redistribution under democracy favours the transmission of political preferences towards a democratic political system. Models 2.3.5 and 2.3.6 underline alternative factors that could lead to democratisation. In both models, the elite's fear of losing economic and political power leads them to prefer democracy to autocracy. In addition, model 2.3.6 analyses alternative channels of political socialisation (schooling and the media) through which the elite can influence preferences for a political system and thus affect the cultural transmission of political preferences. It predicts that the greater the effectiveness of these socialisation agents is, the greater their impact will be on the transmission of political-cultural preferences towards the political system preferred by elites.

In countries with long enough experience as democracies, models 2.3.3 and 2.3.4 highlight the long-term negative impact on democratic stability that citizens' bad experiences with the functioning of democracy on issues such as inequality and corruption have. In these models, the share of democratic citizens decreases as the effectiveness of the democratic system in handling inequality ( $\alpha$ ) decreases and as corruption ( $\mathfrak{C}$ ) increases. It is because long-term bad experience affects not only the democratic preferences of citizens at a given period in time but also the evolution of citizens' democratic preferences in society and, therein, the stability of democracy. More importantly, this research suggests that, in democratic regimes, the negative effect of inequality on support for democracy comes from the poor long-term performance of the democratic political system in delivering redistribution, which decreases the transmission of political-cultural preferences for democracy.

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<sup>105</sup> This assumption is in line with the support system theories in which socialisation is one of the major sources of political system legitimacy, as it increases the most enduring form of support for a political system (Almond & Verba, 1963; Easton, 1965, 1975; Eckstein, 1988; Mauk, 2020)

## 2.5. Conclusion and comments

This research analyses how political factors such as inequality, democratic efficiency, corruption, elite uncertainty about the ruler type and extra-elite socialisation (oblique socialisation in schooling and the media) influence political-cultural shifts in societies among economic classes concerning political system preference. The analysis of this chapter is composed of two parts. In the first part, I study how inequality and elite uncertainty affect the evolution of politico-cultural preferences in society, which, in turn, will influence the probability of its democratisation. In the second part, I study how long-standing issues like inequality and corruption affect the evolution of political-cultural preferences in a society in ways that erode the likelihood of remaining a democracy or becoming a stable democracy.

The models of the first part complement the predictions made by political economy theory on democratisation (e.g. Acemoglu & Robinson, 2006; Albertus, 2015; Ansell & Samuels, 2014; Boix, 2003). Models of sections 2.3.2 and 2.3.5 predict that an increase in inequality and elite uncertainty about the autocratic ruler type increases the probability of democratisation of a country. However, the effect of inequality and elite uncertainty on the probability of democratisation comes from the citizens' evolution of political preferences towards a democratic political system. The evolution of endogenous political preferences follows this path since when citizens living under an autocratic political system feel excluded from the political and economic sphere, they will prefer to adopt political systems closer to their ideological views, in this case, democracy. At the same time, the inexperience of these societies with a democratic political system makes it easier for democratic-type parents to increase their level of socialisation, as they expect a greater reward in the future under a perfect democracy, as is the case in these models.

The models that incorporate the effectiveness of democracy in tackling inequality and corruption (sections 2.3.3 and 2.3.4) are the first to formally integrate the interaction between political-cultural changes and the long-term performance of political systems. These models argue for the importance of tackling long-standing issues such as inequality and corruption, as they negatively affect the transmission of democratic preferences. Therefore, the probability of becoming a stable democracy decreases. The predictions of these models are in line with the literature on support for democracy, which states that long-term bad experiences with a political system in dealing with significant issues should affect citizens' preferences and support for a political system (e.g. Almond & Verba, 1963; Easton, 1965, 1975; Inglehart, 1997; Lipset, 1959; Mauk, 2019).

This theoretical analysis also highlights the corrosive effect of corruption, especially for democratic political systems. Corruption degrades citizens' beliefs in any possible political system, leading to a feeble transmission of political preferences. It undermines a democratic political system, as corruption allows the elite to increase the capture of political power, eroding the fundamental principle of democracy, the political equality of citizens. In addition, the weak vertical transmission of political preferences makes the new generation more easily influenced by other agents of socialisation like schooling and the media. For instance, if the economic elites own the mainstream media and private schools, they can use them as socialisation agents to influence the choice of the political system to be installed in the country, even if it is flawed.

Equally important, this research emphasises the principal role that oblique socialisation agents (schooling and the media) can play in societies. As shown in model 2.3.6, these socialisation agents, called extra-elite socialisation agents, change the steady state of preferences of the political system in their favour depending on their socialisation capacity. This model predicts that elite uncertainty about the type of ruler led the elite to prefer a democratic system and, through the alternative agents of socialisation that belong to them, to socialise citizens to their preferred political system. In this case, the extra-elite socialisation towards a democratic political system as the elite fear expropriation from the autocratic ruler. Extra-elite socialisation changes the preference of the whole population, with a higher proportion preferring a democratic system, even when the autocratic ruler will favour redistribution to the poor.

This theoretical analysis highlights the essential role of inequality, elite uncertainty and political system effectiveness in handling inequality and corruption and forging a democratic political culture. It is only a first step towards a better understanding of possible alternative channels that can explain the democratisation and non-democratisation of societies. Some issues require further exploration. 1) Modelling the impact of a political authority that has the power to use public institutions to socialise citizens towards a political system. 2) Applying the model of extra-elite socialisation in democracy and analysing its impact on the political outcome of elections. Moreover, empirical studies that validate some of the predictions of this research through its impact on the political support of citizens would be a good step forward. Specifically to test whether the effect of inequality on support for democracy differs in autocratic versus democratic countries, as suggested by this investigation.

## 2.6. Appendix

### 2.6.1. Proof of Propositions (1) – (4)

Re-writing (2), as follows,

$$d_{t+1} = d_t + q_t[(1 - d_t)d_1\tau_P^D - d_t(1 - d_1)\tau_P^A] + (1 - q_t)\{(1 - d_t)d_2\tau_E^D - d_t(1 - d_2)\tau_E^A\}.$$

This transition equation implies that in the SSE,

$$(A) \quad q_t[(1 - d_t)d_1\tau_P^D - d_t(1 - d_1)\tau_P^A] + (1 - q_t)\{(1 - d_t)d_2\tau_E^D - d_t(1 - d_2)\tau_E^A\} = 0.$$

Let me define  $\Delta U_C^D = U_C^{DD} - U_C^{DA}$  and  $\Delta U_C^A = U_C^{AA} - U_C^{AD}$ . It follows that Case 1 from Proposition (1) – (4) occurs when  $\Delta U_C^D \leq 0$ .

### 2.6.2. Proof of the first part of the Propositions (1) – (4)

**Case 1.** When  $\Delta U_E^D \leq 0$  and  $\Delta U_P^D \leq 0$ . From this  $\tau_P^A = \tau_E^A = 0$ .

Substituting the FOCs of each model into (A),

$$(1 - d_t)^2\{q_t\Delta U_P^D + (1 - q_t)\Delta U_E^D\} = 0.$$

As a result, for any starting  $d_t \in \{0,1\}$  the population dynamics will evolve towards  $\lim_{t \rightarrow \infty} d_t = 1$ .

### 2.6.3. Proof of the second part of the Propositions (1) – (4)

**Case 2.** When  $\Delta U_E^D \leq 0$  and  $\Delta U_P^A \leq 0$ , implies that  $\tau_P^A = \tau_E^D = 0$ .

Substituting the FOCs of each model into (A),

$$d_t(1 - d_t)[\tau_P^D - \tau_E^A] = 0.$$

Then there is a unique interior SSE that satisfies  $\tau_P^D = \tau_E^A$ , from which I obtain the second part of each proposition (1) - (4).

- $d^\theta = \frac{1}{2} + \frac{c(\theta)}{4(\Delta U + \theta u - \frac{c(\theta)}{2})}$  and  $\frac{\partial d^\theta}{\partial \theta} = \frac{c'(\theta)(\Delta U + \theta u) - uc(\theta)}{4(\Delta U + \theta u - \frac{c(\theta)}{2})^2} > 0$  for model 2.3.2, given  $c(\theta) < \theta u - \Delta U$  and  $\Delta U < \theta u$ .
- $d^\alpha = \frac{1}{2} + \frac{\alpha c(\theta)}{4(\Delta U + (1-\alpha)\theta u - \frac{\alpha c(\theta)}{2})}$  and  $\frac{\partial d^\alpha}{\partial \alpha} = \frac{(c(\theta) + \alpha c'(\theta))(\Delta U + (1-\alpha)\theta u) + \alpha c(\theta)\theta u}{4(\Delta U + (1-\alpha)\theta u - \frac{\alpha c(\theta)}{2})^2} < 0$  for model 2.3.3 since  $\alpha c(\theta) \leq (1-\alpha)\theta u - \Delta U$  and  $(1-\alpha)\theta u \geq \Delta U$ .
- $d^c = \frac{1}{2} + \frac{(1-c)c(\theta)}{4(\Delta U + \theta u - \frac{(1-c)c(\theta)}{2})}$  and  $\frac{\partial d^c}{\partial c} = \frac{-c(\theta)(\Delta U + \theta u)}{4(\Delta U + \theta u - \frac{(1-c)c(\theta)}{2})^2} \leq 0$  for model 2.3.4 as  $(1-c)c(\theta) \geq \theta u - \Delta U$  and  $\theta u \geq \Delta U$ .
- $d^\phi = \frac{1}{2} + \frac{(1-p^\phi)c(\theta)}{4(\Delta U + (1-p^\phi)[\theta u - \frac{c(\theta)}{2}])}$  and  $\frac{\partial d^\phi}{\partial p} = \frac{-c(\theta)(\Delta U + (1-p^\phi)\theta u)}{4(\Delta U + (1-p^\phi)[\theta u - \frac{c(\theta)}{2}])^2} * \frac{1}{(1-2p^\phi)} > 0$  when  $p^\phi > \frac{1}{2}$  for model 2.3.5, given  $(1-p^\phi)(\theta u - c(\theta)) \geq \Delta U$  and  $(1-p^\phi)\theta u \geq \Delta U$ .

#### 2.6.4. Proof of the third part of the Propositions (1) – (4)

**Case 3.** All the other possibilities of  $\Delta U_C^p$  where  $p \in \{A, D\}$  and  $C \in \{P, E\}$ .

Substituting the FOCs of each model into (A),

$$(B) \quad q_t[(1-d_t)^2\Delta U_P^D - d_t^2\Delta U_P^A] + (1-q_t)\{(1-d_t)^2\Delta U_E^D - d_t^2\Delta U_E^A\} = 0.$$

**Proposition 1 (3)** comes from finding the interior SSE in model 2.3.2.

Substituting  $\Delta U_C^p$ , and  $\bar{d}$  defined in (10) into (B) and after some algebra, we have,

$$(2\bar{d} - 1)d_t^2 - 2\bar{d}d_t + \bar{d} = 0.$$

It gives two possible values to which  $d_t$  will converge at the SSE,  $d_t = \frac{\bar{d} \pm [\bar{d}(1-\bar{d})]^{1/2}}{\bar{d}-1/2}$ . Notice

that we have two real solutions,  $[\bar{d}(1-\bar{d})]^{1/2} \geq 0$  since  $\bar{d} \in [0,1]$ .

Equation (10) can be rewritten as,

$$\bar{d} = \frac{1}{2} + q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1-q_t) \left\{ \frac{1}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\}.$$

Then

- (i). For all values of  $q_t$  such that  $q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\} \geq 0$ , the unique interior SSE between 0 and 1 will be  $d_t = d^\theta = \frac{\bar{d} - [\bar{d}(1 - \bar{d})]^{1/2}}{\bar{d} - 1/2}$ .
- (ii). For all values of  $q_t$  such that  $q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\} < 0$ , the unique interior SSE between 0 and 1 will be  $d_t = d^\theta = \frac{\bar{d} + [\bar{d}(1 - \bar{d})]^{1/2}}{\bar{d} - 1/2}$ .

Furthermore,

- When  $q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\} \geq 0$ ,  $\frac{\partial d^\theta}{\partial \theta} = \frac{\partial d^\theta}{\partial \bar{d}} * \frac{\partial \bar{d}}{\partial \theta} > 0$ , as  $\frac{\partial d^\theta}{\partial \bar{d}} = \frac{[(\bar{d} - 1/2)^2 + 2\{2\bar{d}(1 - \bar{d}) - [\bar{d}(1 - \bar{d})]^{1/2}\}]}{4[\bar{d}(1 - \bar{d})]^{1/2}(\bar{d} - 1/2)^2} > 0$  and  $\frac{\partial \bar{d}}{\partial \theta} \geq 0$ .
- When  $q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\} < 0$ ,  $\frac{\partial d^\theta}{\partial \theta} = \frac{\partial d^\theta}{\partial \bar{d}} * \frac{\partial \bar{d}}{\partial \theta} > 0$ , since  $\frac{\partial d^\theta}{\partial \bar{d}} = -\frac{[(\bar{d} - 1/2)^2 + 2\{2\bar{d}(1 - \bar{d}) - [\bar{d}(1 - \bar{d})]^{1/2}\}]}{4[\bar{d}(1 - \bar{d})]^{1/2}(\bar{d} - 1/2)^2} < 0$  and  $\frac{\partial \bar{d}}{\partial \theta} < 0$ .

**The proofs of Propositions 2 (3), 3 (3) and 4 (3)** follow the same reasoning as **Proposition 1 (3)**. However, the new factors introduced in each model change the SSE as they affect  $\Delta U_C^p$ .

**Proposition 2 (3)** is obtained from the interior SSE found in model 2.3.3.

Substituting  $\Delta U_C^p$ , and  $\bar{d}^\alpha$  defined in (14) into (B), gives,

$$(2\bar{d}^\alpha - 1)d_t^2 - 2\bar{d}^\alpha d_t + \bar{d}^\alpha = 0.$$

It implies that,

- (i). For all values of  $q_t$  such that  $q_t \left\{ \frac{1}{2} \left( \frac{(1 - \alpha)\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{\alpha c(\theta) - (1 - \alpha)\theta u}{\Delta U} \right) \right\} \geq 0$ , the unique interior SSE will be  $d_t = d^\alpha = \frac{\bar{d}^\alpha - [\bar{d}^\alpha(1 - \bar{d}^\alpha)]^{1/2}}{\bar{d}^\alpha - 1/2}$ .
- (ii). For all values of  $q_t$  such that  $q_t \left\{ \frac{1}{2} \left( \frac{(1 - \alpha)\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{\alpha c(\theta) - (1 - \alpha)\theta u}{\Delta U} \right) \right\} < 0$ , the unique interior SSE will be  $d_t = d^\alpha = \frac{\bar{d}^\alpha + [\bar{d}^\alpha(1 - \bar{d}^\alpha)]^{1/2}}{\bar{d}^\alpha - 1/2}$ .

Additionally,

- When  $q_t \left\{ \frac{1}{2} \left( \frac{(1 - \alpha)\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{\alpha c(\theta) - (1 - \alpha)\theta u}{\Delta U} \right) \right\} \geq 0$ ,  $\frac{\partial d^\alpha}{\partial \alpha} = \frac{\partial d^\alpha}{\partial \bar{d}^\alpha} * \frac{\partial \bar{d}^\alpha}{\partial \alpha} \leq 0$ , as  $\frac{\partial d^\alpha}{\partial \bar{d}^\alpha} = \frac{[(\bar{d}^\alpha - 1/2)^2 + 2\{2\bar{d}^\alpha(1 - \bar{d}^\alpha) - [\bar{d}^\alpha(1 - \bar{d}^\alpha)]^{1/2}\}]}{4[\bar{d}^\alpha(1 - \bar{d}^\alpha)]^{1/2}(\bar{d}^\alpha - 1/2)^2} > 0$  and  $\frac{\partial \bar{d}^\alpha}{\partial \alpha} \leq 0$ .



- When  $q_t \left\{ \frac{1}{2} \left( \frac{(1-\alpha)\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{\alpha c(\theta) - (1-\alpha)\theta u}{\Delta U} \right) \right\} < 0$ ,  $\frac{\partial d^\alpha}{\partial \alpha} = \frac{\partial d^\alpha}{\partial \bar{d}^\alpha} * \frac{\partial \bar{d}^\alpha}{\partial \alpha} < 0$ , since  $\frac{\partial d^\alpha}{\partial \bar{d}^\alpha} = - \frac{[(\bar{d}^\alpha - 1/2)^2 + 2\{2\bar{d}^\alpha(1 - \bar{d}^\alpha) - [\bar{d}^\alpha(1 - \bar{d}^\alpha)]^{1/2}\}]}{4[\bar{d}^\alpha(1 - \bar{d}^\alpha)]^{1/2}(\bar{d}^\alpha - 1/2)^2} < 0$  and  $\frac{\partial \bar{d}^\alpha}{\partial \alpha} > 0$ .

**Proposition 3 (3)** derives from obtaining the interior SSE in model 2.3.4.

Substituting  $\Delta U_C^p$ , and  $\bar{d}^c$  defined in (18) into (B), we get,

$$(2\bar{d}^c - 1)d_t^2 - 2\bar{d}^c d_t + \bar{d}^c = 0.$$

Results in the following new SSE,

- (i). For all values of  $q_t$  such that  $q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{(1-c)c(\theta) - \theta u}{\Delta U} \right) \right\} \geq 0$ , the unique interior SSE will be  $d_t = d^c = \frac{\bar{d}^c - [\bar{d}^c(1 - \bar{d}^c)]^{1/2}}{\bar{d}^c - 1/2}$ .
- (ii). For all values of  $q_t$  such that  $q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{(1-c)c(\theta) - \theta u}{\Delta U} \right) \right\} < 0$ , the unique interior SSE will be  $d_t = d^c = \frac{\bar{d}^c + [\bar{d}^c(1 - \bar{d}^c)]^{1/2}}{\bar{d}^c - 1/2}$ .

Moreover,

- When  $q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{(1-c)c(\theta) - \theta u}{\Delta U} \right) \right\} \geq 0$ ,  $\frac{\partial d^c}{\partial c} = \frac{\partial d^c}{\partial \bar{d}^c} * \frac{\partial \bar{d}^c}{\partial c} \leq 0$ , as  $\frac{\partial d^c}{\partial \bar{d}^c} = \frac{[(\bar{d}^c - 1/2)^2 + 2\{2\bar{d}^c(1 - \bar{d}^c) - [\bar{d}^c(1 - \bar{d}^c)]^{1/2}\}]}{4[\bar{d}^c(1 - \bar{d}^c)]^{1/2}(\bar{d}^c - 1/2)^2} > 0$  and  $\frac{\partial \bar{d}^c}{\partial c} \leq 0$ .
- When  $q_t \left\{ \frac{1}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left( \frac{(1-c)c(\theta) - \theta u}{\Delta U} \right) \right\} < 0$ ,  $\frac{\partial d^c}{\partial c} = \frac{\partial d^c}{\partial \bar{d}^c} * \frac{\partial \bar{d}^c}{\partial c} < 0$ , since  $\frac{\partial d^c}{\partial \bar{d}^c} = - \frac{[(\bar{d}^c - 1/2)^2 + 2\{2\bar{d}^c(1 - \bar{d}^c) - [\bar{d}^c(1 - \bar{d}^c)]^{1/2}\}]}{4[\bar{d}^c(1 - \bar{d}^c)]^{1/2}(\bar{d}^c - 1/2)^2} < 0$  and  $\frac{\partial \bar{d}^c}{\partial c} > 0$ .

**Proposition 4 (3)** follows from the interior SSE obtained in model 2.3.5.

Substituting  $\Delta U_C^p$ , and  $\bar{d}^\phi$  defined in (22) into (B) and after some algebra. Then

$$(2\bar{d}^\phi - 1)d_t^2 - 2\bar{d}^\phi d_t + \bar{d}^\phi = 0.$$

It follows that,

- (i). For all values of  $q_t$  such that  $q_t \left\{ \frac{(1-p^\phi)}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{(1-p^\phi)}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\} \geq 0$ , the unique interior SSE will be  $d_t = d^\phi = \frac{\bar{d}^\phi - [\bar{d}^\phi(1 - \bar{d}^\phi)]^{1/2}}{\bar{d}^\phi - 1/2}$ .
- (ii). For all values of  $q_t$  such that  $q_t \left\{ \frac{(1-p^\phi)}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{(1-p^\phi)}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\} < 0$ , the unique interior SSE will be  $d_t = d^\phi = \frac{\bar{d}^\phi + [\bar{d}^\phi(1 - \bar{d}^\phi)]^{1/2}}{\bar{d}^\phi - 1/2}$ .

As well,

- When  $q_t \left\{ \frac{(1-p^\phi)}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{(1-p^\phi)}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\} \geq 0$  and  $p^\phi > \frac{1}{2}$ ,  

$$\frac{\partial d^\phi}{\partial v} = \frac{\partial d^\phi}{\partial \bar{d}^\phi} * \frac{\partial \bar{d}^\phi}{\partial p^\phi} * \frac{\partial p^\phi}{\partial v} \leq 0, \quad \text{as} \quad \frac{\partial d^\phi}{\partial \bar{d}^\phi} = \frac{[(\bar{d}^\phi - 1/2)^2 + 2\{2\bar{d}^\phi(1 - \bar{d}^\phi) - [\bar{d}^\phi(1 - \bar{d}^\phi)]^{1/2}\}]}{4[\bar{d}^\phi(1 - \bar{d}^\phi)]^{1/2}(\bar{d}^\phi - 1/2)^2} > 0,$$

$$\frac{\partial \bar{d}^\phi}{\partial p^\phi} \leq 0 \text{ and } \frac{\partial p^\phi}{\partial v} = \frac{1}{(1 - 2p^\phi)} > 0.$$
- When  $q_t \left\{ \frac{(1-p^\phi)}{2} \left( \frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{(1-p^\phi)}{2} \left( \frac{c(\theta) - \theta u}{\Delta U} \right) \right\} < 0$  and  $p^\phi > \frac{1}{2}$ ,  

$$\frac{\partial d^c}{\partial c} = \frac{\partial d^c}{\partial \bar{d}^c} * \frac{\partial \bar{d}^c}{\partial c} < 0, \text{ since } \frac{\partial d^c}{\partial \bar{d}^c} = - \frac{[(\bar{d}^\phi - 1/2)^2 + 2\{2\bar{d}^\phi(1 - \bar{d}^\phi) - [\bar{d}^\phi(1 - \bar{d}^\phi)]^{1/2}\}]}{4[\bar{d}^\phi(1 - \bar{d}^\phi)]^{1/2}(\bar{d}^\phi - 1/2)^2} < 0,$$

$$\frac{\partial \bar{d}^\phi}{\partial p^\phi} > 0 \text{ and } \frac{\partial p^\phi}{\partial v} = \frac{1}{(1 - 2p^\phi)} > 0.$$

### 2.6.5. Proof of the special scenario of Case 3 from Propositions (1) to (4)

Each model has a special scenario with a stable interior SSE. It happens, in model 2.3.2, when  $c(\theta) = 2\theta u$ , in model 2.3.3 when  $\alpha c(\theta) = 2(1 - \alpha)\theta u$ , in model 2.3.4 when  $(1 - c)c(\theta) = 2\theta u$  and in model 2.3.5 when  $c(\theta) = 2\theta u$ .

Substituting each one of the conditions in the FOCs in its respective model we obtain  $d_1 \tau_P^D = d_2 \tau_E^D$  and  $(1 - d_1) \tau_P^A = (1 - d_2) \tau_E^A$ .

Introducing it into (A),

$$(C) \quad q_t \{(1 - d_t)[d_1 \tau_P^D] - d_t[(1 - d_1) \tau_P^A]\} = 0$$

which can also be re-written as,

$$(D) \quad (1 - q_t)\{(1 - d_t)[d_2\tau_E^D] - d_t[(1 - d_2)\tau_E^A]\} = 0.$$

Additionally, by decomposing the share of democratic types by class, we have,

$$(E) \quad \begin{aligned} d_{1,t+1}q_{t+1} &= d_1q_tP_P^{D,D} + (1 - d_1)q_tP_P^{A,D} \\ &= q_t\{d_t + (1 - d_t)d_1\tau_P^D - d_t(1 - d_1)\tau_P^A\} \end{aligned}$$

$$(F) \quad \begin{aligned} d_{2,t+1}(1 - q_{t+1}) &= d_2(1 - q_t)P_E^{D,D} + (1 - d_2)(1 - q_t)P_E^{A,D} \\ &= (1 - q_t)\{d_t + (1 - d_t)d_2\tau_E^D - d_t(1 - d_2)\tau_E^A\}. \end{aligned}$$

Since the SSE is characterised by  $q_{t+1} = q_t$ ,  $d_{1,t+1} = d_1$  and  $d_{2,t+1} = d_{2,t+1}$

From substituting (C) into (E) and (D) into (F), we get,

$$\begin{aligned} 0 &= q_t\{d_t - d_1\} \\ 0 &= (1 - q_t)\{d_t - d_2\}. \end{aligned}$$

Therefore, there is only an interior SSE where  $q_t \neq \{0,1\}$  in which  $d_1 = d_2 = d_t$ . It follows that the new SSE per model is,

- $d^\theta = \bar{d} = \frac{1}{2} + \frac{1}{2}\left(\frac{\theta u}{\Delta U}\right)$  and  $\frac{\partial d^\theta}{\partial \theta} = \frac{u}{2\Delta U} > 0$  for model 2.3.2.
- $d^\alpha = \bar{d}^\alpha = \frac{1}{2} + \frac{1}{2}\left(\frac{(1-\alpha)\theta u}{\Delta U}\right)$  and  $\frac{\partial d^\alpha}{\partial \alpha} = -\frac{\theta u}{2\Delta U} < 0$  for model 2.3.3.
- $d^c = \bar{d}^c = \frac{1}{2} + \frac{1}{2}\left(\frac{\theta u}{\Delta U}\right)$  and  $\frac{\partial d^c}{\partial c} = 0$  for model 2.3.4.
- $d^\phi = \bar{d}^\phi = \frac{1}{2} + \frac{(1-p^\phi)}{2}\left(\frac{\theta u}{\Delta U}\right)$  and  $\frac{\partial d^\phi}{\partial v} = -\frac{\theta u}{2\Delta U} * \frac{1}{(1-2p^\phi)} > 0$  when  $p^\phi > \frac{1}{2}$  for model 2.3.5.

## 2.6.6. Proof of Proposition 5

When  $p^\phi = 1$ ,  $\tau_P^D = \tau_E^D = \tau^D$  and  $\tau_P^A = \tau_E^A = \tau^A$ , given the assumption  $H(\tau_C^p) = \frac{(\tau_C^p)^2}{2}$ . It follows that the unique interior SSE found substituting FOCs (25) and (26) in (24) is  $d^\varepsilon = \frac{1}{2} + k$ .

Where  $k = \frac{\sqrt[2]{2\varepsilon\Delta U + (1+\varepsilon^2)(\Delta U)^2 - 6\varepsilon[-\Delta U + \Delta U^2]} - (1+\varepsilon)\Delta U}{4(1-\varepsilon)\Delta U}$

The second part of **Proposition 5** is found by taking the derivative of  $d^\varepsilon$  with respect to  $\varepsilon$ .

Re-writing the SSE of proposition 5 as follows

$$(1 - \varepsilon) d^\varepsilon = \frac{[2(1-\varepsilon)\Delta U - (1+\varepsilon)(\Delta U)] + \sqrt[2]{2\varepsilon\Delta U + (1+\varepsilon^2)(\Delta U)^2 - 6\varepsilon[-\Delta U + \Delta U^2]}}{4\Delta U}$$

and denoting  $A = 2\varepsilon\Delta U + (1 + \varepsilon^2)(\Delta U)^2 - 6\varepsilon[-\Delta U + \Delta U^2]$ . Then

$$\frac{\partial d^\varepsilon}{\partial \varepsilon} (1 - \varepsilon) = \frac{1}{4\Delta U} \left\{ -3\Delta U + \frac{2(\Delta U + \varepsilon\Delta U^2 + 3\Delta U - 3\Delta U^2)}{2\sqrt[2]{A}} \right\} + d^\varepsilon$$

$$\frac{\partial d^\varepsilon}{\partial \varepsilon} (1 - \varepsilon) = \frac{1}{4\Delta U} \left\{ -\Delta U + \frac{(\Delta U + \varepsilon\Delta U^2 + 3\Delta U - 3\Delta U^2)}{\sqrt[2]{A}} + \frac{[-(1+\varepsilon)(\Delta U)] + \sqrt[2]{A}}{(1-\varepsilon)} \right\}.$$

The following equation is obtained after simplification,

$$\frac{\partial d^\varepsilon}{\partial \varepsilon} = \frac{1}{(1 - \varepsilon)^2 \sqrt[2]{A}} \left\{ \frac{1}{2} \sqrt[2]{A} + (1 + \varepsilon) \left[ 1 - \frac{1}{2} \Delta U \right] \right\}$$

Then  $\frac{\partial d^\varepsilon}{\partial \varepsilon}$  is positive since that thanks to FOCs (25) and (26), we know the maximum value of  $\Delta U \rightarrow 1$ .

### Determining $\tau^D$ , $\tau^A$ and how they vary with respect to $\varepsilon$

From FOCs (25) and (26)

$$\tau^D = (1 - \varepsilon)(1 - d_t)\Delta U$$

$$\tau^A = [1 - (1 - \varepsilon)(1 - d_t)]\Delta U$$

$$\frac{\partial \tau^D}{\partial \varepsilon} = - \left[ (1 - d^\varepsilon) + (1 - \varepsilon) \frac{\partial d_t}{\partial \varepsilon} \right] \Delta U < 0$$

$$\frac{\partial \tau^A}{\partial \varepsilon} = \left[ (1 - d^\varepsilon) + (1 - \varepsilon) \frac{\partial d_t}{\partial \varepsilon} \right] \Delta U > 0$$

Notice that when  $\varepsilon \rightarrow 1$ , the democratic parents do not socialise their children  $\tau^D \rightarrow 0$ , as the high level of extra-elite socialisation, substitutes parental socialisation for democratic types.

On the contrary, for the autocratic type, parental socialisation is set at its maximum value  $\tau^A \in (0,1)$ . Furthermore, the dynamics of the transition in (24) imply that  $\lim_{t \rightarrow \infty} d_t = 1$ .



## **Chapter**

### **3. Inequality, Corruption and Support for Democracy**

## **Abstract**

Do inequality and corruption erode support for democracy? Scholars have long theorised that long-term experience with a political system influences the support for it. However, the empirical evidence provided is weak. This study examines the effect of inequality and corruption on support for democracy in 119 countries over 30 years. It shows that inequality and corruption have a negative effect on support for democracy. These findings highlight the importance of inequality and corruption as determinants of support for democracy. Furthermore, this essay investigates whether the effect of inequality on support for democracy differs between autocratic and democratic countries. It found a positive effect of inequality on support for democracy in autocratic countries. This empirical evidence suggests that the negative effect of inequality on support for democracy comes from long-term experience with a political system that has continually failed to accomplish its principles. The results are robust to different measures of inequality and corruption.

**JEL Classification:** C23, C26, D31, D63, D73, H11, Z10, Z18

**Keywords:** Inequality, corruption, political culture, democracy, support for democracy.



### 3.1. Introduction

In theory, in democratic systems, rulers have strong incentives to implement policies that benefit the majority of citizens since the system of checks and balances in a democracy provides a balance of power in society. They are accountable to the entire population through free and fair elections, which, in turn, helps create and maintain support for a democratic system. As scholars have long argued, support for democracy is essential for the survival of democracy because as long as citizens remain committed to democratic political values, they will tolerate and defend institutional structures based on democratic principles that allow for regime stability (Easton, 1965, 1975; Lipset, 1959; Norris, 2011). However, the general decline in support for democracy, which has been even more severe in regions with high inequality, has increased the investigation of how inequality affects citizens' support for democracy. Arguably, if inequality matters when studying democratic support, then the study of corruption should matter as well since both issues are closely linked when explaining the malfunctioning of democracy (Acemoglu & Robinson, 2006; Acemoglu et al., 2015; Dahl, 1971; Hellman, 1998; Hellman et al., 2003; Houle, 2018; Uslaner & Brown, 2005). Corruption, it is argued, threatens democracy by undermining its legitimacy and eroding its support (Anderson & Tverdova, 2003; Bratton et al., 2005; Seligson, 2002).

The theoretical prediction in the literature that examines the effect of inequality and corruption on support for democracy can be summarised as follows. Political economy theory suggests that, in countries with high inequality, citizens will prefer democracy because it gives them political power to make redistribution possible (Acemoglu & Robinson, 2006; Boix, 2003; Meltzer & Richard, 1981). Performance theory, which focuses on the performance of the democratic political system, points out that inequality and corruption generate disillusionment with democracy, leading to lower levels of democratic support (Anderson & Tverdova, 2003; Krieckhaus et al., 2014). Chapter 2 predicts that, in autocratic countries, inequality increases the preference for a democratic political system when citizens believe in its principles as they expect it to work accordingly (perfect democracy). Nevertheless, in democratic countries, when citizens' experience with democracy increases and inequality, corruption or both remain important issues (imperfect democracy), citizens' preferences for democracy will decrease.

Although inequality and corruption are recognised to undermine the principles of democracy and thus the support for democracy, studying the effect of those issues on support for democracy has little empirical testing. This study contributes to this literature by investigating the effects of inequality and corruption on diffuse support for democracy in a sample of 119 countries over

30 years. The main empirical results show that inequality and corruption have a negative effect on support for democracy. To see whether the negative effects are the result of long-term experience with democracy, I go further and test, in countries with no democratic experience, the effect of inequality on support for democracy. The findings show that inequality increases the support for democracy in countries with no democratic experience. It suggests that the negative effect of inequality and corruption on diffuse support for democracy is the result of long experience with a political system that has continually failed to accomplish its principles. That is, as Lipset (1959) and Easton (1965, 1975) hypothesised more than 50 years ago, long-term experiences with a political system influence the evolution of its support.

This research provides the most extensive empirical test of the effect of inequality and corruption on support for democracy. It accounts for reverse causality, unobserved country-specific factors, heterogeneity and serial correlation. Earlier studies only focus on the effect of inequality or corruption on support for democracy. These studies are mainly cross-sectional studies with samples limited to a few countries. Moreover, the most commonly used measures of support for democracy are democracy satisfaction and other democracy support indices. The former is a very narrow measure of democratic support. The latter measures correspond to some forms of democratic support from the World Values Survey database. In contrast, this study uses a more reliable and valid measure of democratic support (diffuse support for democracy), which is available from Claassen (2020). He used a Bayesian latent variable model since data were heavily fragmented across time, country, and disparate survey items and generated a smooth index of support for democracy from 14 survey projects for 150 countries over 30 years.

Furthermore, this investigation goes beyond the previous studies by testing the effect of inequality in countries without democratic experience. Thus, seeking to contribute to a better understanding of the decline of support for democracy by examining if the relationship between inequality and support for democracy changes from the former results when considering countries with no democratic experience. Besides, whereas the existing studies mostly use the Gini index as a measure of inequality, this research incorporates alternative measures of inequality, the Palma ratio and the Share of the top 1%. Lastly, in this study, the principal indicator of corruption is the Political Corruption index, which has coverage across countries and over time since 1900 from the Varieties of Democracy Project (V-Dem). The Political Corruption Index (PCI) is a more reliable measure than the Corruption Perceptions Index (CPI) in which the comparison over time it is only possible since 2012. Moreover, in autocratic countries, alternative measures of corruption are also proposed for analysis.

Section 3.2 describes the literature on what we know about the relationship between inequality and support for democracy or corruption and support for democracy. Subsequently, section 3.3 presents the hypotheses. Section 3.4 discusses measurement issues, data analyses and methodology. Section 3.5 presents the empirical strategy. Then section 6 shows the results. Lastly, section 3.7 presents the conclusion and some avenues for future research.

## **3.2. Contextual factor and Support for Democracy**

### **3.2.1. Existing literature about Inequality, Corruption and Democracy**

Inequality and corruption are among the most studied phenomena to understand why some countries democratise and consolidate while others do not. The political economy literature on inequality and democratisation builds on the seminal work of Meltzer & Richard (1981), Roberts (1977) and Romer (1975). The idea is that extending voting rights to the poor will lead to progressive distribution since when it occurs, the median voter's income is lower than the country's average income, incentivising the median voter to support high-tax progressive distribution policies. Boix (2003) and Acemoglu & Robinson (2006) make several extensions of the above model and incorporate social unrest. The former found a negative relationship between inequality and democracy. The latter develops a framework to explain under which conditions democratic transition and consolidation occur. They found that inequality follows an inverted U-shaped pattern with democracy and its consolidation happening at intermediate levels of inequality. Ansell & Samuels (2014) develop an alternative approach to explain democratisation. They use an elite competition approach to argue that the increase in inequality reveals a newly emerging but politically disenfranchised capitalist class that challenges the landed elites and drives democratisation. Despite all the arguments favouring a the positive relationship between inequality and democratisation, empirical attempts to test it have found mixed results. Boix (2003) found a positive relationship between inequality and democracy. Ansell & Samuels (2014) found a negative relationship between them. Houle (2009), Przeworski et al. (2000) and Teorell (2010) found no relationship between inequality and democratisation.

There has been considerable discussion about the importance of corruption when studying democratic consolidation since high levels of corruption are expected to hinder democracy. However, to my knowledge, existing empirical work focuses on the effect of democracy in

curbing corruption rather than how corruption affects democracy and its consolidation. Moreover, existing literature has not reached a consensus on the pattern of the relationship between corruption and democracy. For instance, Paldam (2002) and Sandholtz & Koetzle (2000) study the impact of democracy on corruption and found a negative relationship between the two. Martinola & Jackman (2002) found a negative relationship between corruption and democracy. Their results also suggested that there may be a non-linear relationship since when introducing the square term of democracy, they found that democracy leads to less corruption.

Mohtadi & Roe (2003) develop an endogenous growth model of two-sector to explain the inverted U relationship between corruption and democracy. The general idea of this model is that democracy, in its early years, is not sufficiently developed (low checks and balances), so rent-seeking increases, but only to a certain point because as the number of rent-seekers increases, the returns per rent-seeker decreases. Simultaneously, as time goes on, democracies become more mature and transparency increases, raising the cost of rent-seeking. Manow (2005) empirically found that corruption follows an inverted U-shape relationship with democracy. Rock (2009, 2017) found strong support for an inverted U-pattern between corruption and democracy duration.

### **3.2.2. Inequality, Corruption and Support for Democracy**

A long-standing argument, found in the seminal contributions made by Lipset (1959), Almond & Verba (1963) and Easton (1965, 1975), holds that support for democracy matters for democratic survival and consolidation.<sup>106</sup> Lipset (1959) argues that the legitimacy of a political system is a principal requirement for its stability. In his own words, “Legitimacy involves the capacity of a political system to engender and maintain the belief that existing political institutions are the most appropriate or proper ones for the society” (Lipset, 1959, p. 86). Almond & Verba (1963) suggest that for a democratic political system to survive, its citizens must generally accept it as the proper form of government. Easton (1965, 1975) differentiates between two types of regime support systems. Specific support for a political system is object-specific and directed at political authorities and authoritative institutions. It is related to citizens’ satisfaction with the functioning of government and institutions. On the

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<sup>106</sup> See Alexander (2002), Diamond (1999; 2008), Inglehart & Wenzel (2005) and Linz & Stepan (1996). Claassen (2020) empirically tests this hypothesis and shows that there is a positive effect of support for democracy on subsequent changes towards democracy. He found that diffuse support for democracy matter more for the permanence of democracy than for its emergence.

contrary, diffuse support – the most enduring form of support – is the evaluation of what a system is or represents. It is generated through socialisation and evolves with citizens' long-term experience with a political system. Diffuse support is expressed in citizens' trust in the system and belief in its legitimacy.

Despite the wide acceptance of democratic support theory by political scientists (e.g. Booth & Seligson, 2009; Bratton et al., 2005; Gibson, 1996; Norris, 2011), the study of the effect of long-standing issues such as inequality and corruption on support for democracy has received little empirical attention. It must be due to data requirements to measure support for democracy. It was only with the inclusion in the third wave of the World Values Survey (WVS) of items measuring some forms of democratic support that the relationship between democratic support and other variables could be empirically possible to test. It has also allowed researchers to generate aggregate measures of support for democracy that have contributed to the development of additional research on support for democracy (e.g. Claassen, 2020; Dalton & Ong, 2005; Inglehart & Welzel, 2005; Klingemann, 1999; Magalhães, 2014; Mattes & Bratton, 2007).

Seeking to answer the question of how income inequality erodes democracy led researchers to explore how inequality affects the behaviour and attitudes of citizens towards a democratic system. Income inequality has a corrosive effect on civic cooperation (Pickett & Wilkinson, 2009), political participation (Booth & Seligson, 2009; Solt, 2008, 2010), on tolerance and generalized social trust (Andersen & Fetner, 2008; Barone & Mocetti, 2016; Booth & Seligson, 2009; Gustavsson & Jordahl, 2008; Stephany, 2017; Uslaner & Brown, 2005). Some scholars have also argued that economic inequality undermines the most notorious principle of democracy by generating political inequality (Bartels, 2008; Dahl, 2006; Houle, 2018). The general idea that emerges from these studies is that inequality affects citizens' behaviour and attitudes in such ways that it erodes citizens' trust in democracy and delegitimises the democratic system. Although income inequality matters in studying why support for democracy declines, it has received little empirical attention.

Previous empirical research suggests a negative relationship between inequality and democratic support. Anderson & Singer (2008) claim that in countries with higher levels of inequality, individuals evaluate the performance of the democratic political system more negatively and trust in democratic institutions less. They differentiated the electorate by ideology and concluded that leftist voters evaluate a democratic system more negatively than the rest of the electorate. Andersen (2012) found that countries with high levels of inequality support less democracy than countries with a low level of inequality, even in former Communist societies. He emphasises that economic growth needs to be accompanied by redistributive

policies to nurture democratic values, which will consolidate democracy; otherwise, it will hinder the support for democracy. Krieckhaus et al. (2014) argue that inequality affects democratic support depending on how individuals evaluate the democratic system. They distinguish between prospective evaluations versus retrospective evaluations as well as between egocentric evaluations versus sociotropic evaluations. Their finding suggests that citizens are retrospective when supporting democracy. According to the authors, high inequality would explain the higher demand for democratisation but leads to lower levels of democratic support. Wu & Chang (2019), using subjective (perceived unfairness) and objective (Gini index) measures of inequality, found that democratic support decreased with inequality in 28 East Asian and Latin American democracies in 2013 and 2015.

Inequality is certainly not the only factor to consider in evaluating attitudes and values associated with democracy. In this regard, Seligson (2002) empirically shows that corruption erodes trust in the institutions and the legitimacy of a political system. Moreover, scholars have found a negative effect of corruption on the evaluation of government performance and trust in institutions (Anderson & Tverdova, 2003; Bratton et al., 2005; Della Porta, 2000; Mishler & Rose, 2001). Also, much of the literature links inequality and corruption in explaining why democratisation does not necessarily bring redistribution (e.g. Acemoglu & Robinson, 2006; Acemoglu et al., 2015; Hellman, 1998; Hellman et al., 2003; Houle, 2018; Uslaner & Brown, 2005). While corruption is theoretically known to harm the democratic political system, there is little evidence about its impact on democratic support. For instance, Collins & Gambrel (2017) found a negative relationship between corruption and popular support for democracy in the hybrid regime of Kyrgyzstan. They analysed the following four elements of democratic support. Support for democracy as a political system, support for the main democratic institutional components, trust in state institutions, and support for the government. They found that corruption undermines all four forms of democratic support. Linde & Erlingsson (2013) show that the increase in the public perception of corruption has a detrimental effect on support for democracy in Sweden. Erlingsson et al. (2016), using survey data before and after the 2009 financial crisis in Iceland, found that the increase in the perception of corruption decreases democratic system support.

The main differences between the existing studies and this work are as follows. Previous studies have analysed the relationship between either inequality and democratic support or corruption and democratic support. However, such investigations do not study the effect of inequality and corruption on support for democracy, which is what this article investigates. Most importantly, earlier studies neither consider the possibility of omitted factors affecting

inequality, corruption and support for democracy nor reverse causality between the explanatory variables, inequality and corruption, and support for democracy. This study attempts to overcome these problems using the instrumental variables approach. Furthermore, this article explores how inequality affects support for democracy in non-democratic countries.

Another limitation is that most of the research focuses on either a single country or a small number of countries (e.g. Andersen, 2012; Anderson & Singer, 2008; Collins & Gambrel, 2017; Linde & Erlingsson, 2013; Erlingsson et al., 2016; Wu & Chang, 2019). One of the most extensive studies is the one of Krieckhaus et al. (2014), who cover 40 countries taking into account the third, fourth and fifth waves of the World Value Survey, giving them a sample of 57 country-years. Moreover, those who study a limited number of countries mainly use a cross-sectional research design, which does not allow controlling for idiosyncratic country-specific factors (e.g. Andersen, 2012; Anderson & Singer, 2008). However, to my knowledge, there is not a single panel data study of the effect of inequality and corruption on support for democracy. In contrast, this research covers 119 countries over 30 years, including a large sample of non-democracies. In each estimated regression, a fixed effects model with the robust and cluster option is used to control for unobserved country-specific factors, heterogeneity among countries and serial correlation.

The existing test of the relationship of either inequality or corruption on democratic support is further limited since the results relied on a small fraction of opinion data (support for democracy measure). Previous studies use limited and specific measures of support for democracy, such as satisfaction with democracy. Others have constructed indexes of democratic support based on a few items from the World Value Survey database (e.g. Andersen, 2012; Krieckhaus et al., 2014). In addition, at the macro level, the Gini index and the Corruption Perception Index (CPI) are the measures of inequality and corruption used. In contrast, this research uses a more reliable and valid measure of support for democracy, available from Claassen (2020). He generated an aggregated normalised index from 14 survey projects for 150 countries and 30 years. As alternative measures of inequality, this paper uses the share of total income accruing to the top 1% of the population and the Palma ratio to corroborate the estimates. Besides, the measure of corruption used here is the political corruption index from the V-Dem project, which is a more reliable measure than the CPI index in which comparison over time is only possible since 2012.

### 3.3. Hypotheses

The theory of support for a political system suggests that long-term experiences with a political system influence the evolution of its support (Almond & Verba, 1963; Easton, 1965, 1975; Lipset, 1959).<sup>107</sup> Easton (1965, p. 445) explains, “If discontent with perceived performance continues over a long enough time, it may gradually erode even the strongest underlying bonds of attachment towards a political system”. Furthermore, the theoretical model of Chapter 2 predicts that inequality and corruption affect the socialisation process when remaining long enough by decreasing the cultural transmission of democratic preferences, which can continually diminish citizens’ support for democracy. Therefore, long-term experiences of how a democratic political system handles issues such as economic inequality and corruption may influence support for democracy.

Following previous studies (Andersen, 2012; Anderson & Singer, 2008; Krieckhaus et al., 2014; Wu & Chang, 2019), this paper tests the general hypothesis that economic inequality erodes support for democracy. It assumes that the effect of inequality does not manifest immediately, but that is through the long-term experience of how inequality evolves under a determined political system that democratic support is affected. Namely, this leads to testing whether income inequality erodes the most stable form of democratic support, the diffuse support for democracy.

H1: Income inequality has a negative effect on the most enduring form of support for a democratic political system.

Like inequality, corruption negatively affects individuals’ beliefs system, resulting in low levels of trust (Anderson & Tverdova, 2003; Bratton et al., 2005; Seligson, 2002; Mishler & Rose, 2001). It also erodes the legitimacy of a democratic political system (Seligson, 2002). Existing research studying the effect of corruption on democratic satisfaction and democratic support has recognised its corrosive influence on those variables (Collins & Gambrel, 2017; Erlingsson et al., 2016; Linde & Erlingsson, 2013). In line with the existing research, this paper test the hypothesis of whether corruption undermines democratic support.

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<sup>107</sup> The learning about a political system is not only cognitive in nature but involves feelings, expectations and political evaluations that result largely from political experiences and not from the simple projection into political orientation of basic needs and attitudes that are the product of childhood socialisation (Almond & Verba, 1963, 34).



H2: Corruption negatively affects support for democracy.

The Eastonian diffuse support builds on the idea that citizens accept a political regime as the best for their country when it conforms to their moral principles (Easton, 1965, p. 278). The generation of this kind of support comes first through socialisation toward the political values and principles of the political regime (Easton, 1965; Eckstein, 1988; Rokeach, 1973) and then evolves with citizens' long-term experience with that regime (Easton, 1965; Lipset, 1959). This article tests in H1 and H2 the effect of citizens' long-term experience with the way a democratic political system tackles inequality and corruption on their support for democracy. In addition, the model of Chapter 2 implicitly predicts that in countries without democratic experience, inequality increases socialisation towards a democratic system and thus its support, as socialisation increases the share of citizens who prefer democracy. Following the culturalist approach, it is through socialisation towards the values and principles of the democratic political system that support for democracy is engendered. This article tests whether, in countries without democratic experience, there is an effect of inequality on support for democracy.

H3: Income inequality increases the support for democracy in non-democratic countries.

### **3.4. Data and Methodology**

I construct a yearly panel for 119 countries from 1975 to 2020. Nevertheless, for the empirical analysis, I restrict the dataset to the period 1987-2017, as it is for that period that the annual data for support for democracy is available. The sample of countries by the political system is composed as follows. Twenty-seven consolidated democracies. Twenty-seven countries have remained democratic after a transition occurred before 1980 or during the period 1987-2017 from autocracy to democracy. Nine countries have undergone more than one transition but have at least 25 years of experience as a democracy. Twenty-one countries have an unstable political system and less than 20 consecutive years of democratic or autocratic experience. Eight countries have experienced more than one transition but have at least 25 years of experience as autocracies. Twenty-seven consolidated autocracies. Appendix A1 shows a complete list of countries.

## Dependent variable

Support for democracy measure used in this research comes from Claassen (2020), which has, to my knowledge, the largest country-yearly dataset available for support for democracy. He collected national aggregate responses focusing on public support for democracy, specifically diffuse support, from cross-national survey projects that fielded nationally representative samples of citizens. The total dataset has 3765 aggregated responses per country drawn from 1390 nationally representative survey samples, covering 150 countries and going back to 1988.<sup>108</sup> He develops a dynamic Bayesian latent trait model, which allows the measurement of “smooth” panel opinion on a country-by-year basis, using all available data sources, even when these are fragmented in time and space, to obtain a standardised aggregate measure of support for democracy.<sup>109</sup> Measures of support for democracy are estimated only for 137 countries to ensure that at least two separate survey data were available. In the current analysis, Belize and Malta are left out of the dataset since V-Dem data are unavailable for countries with a population of less than one million. Taiwan is also left out since the data for their GDP per capita in constant 2010 US dollars are unavailable. The dataset left is composed of 2547 support for democracy estimates for 133 countries over 30 years (time series ranging from 5 to 30 years).<sup>110</sup> Table 1 presents general descriptive statistics on the measure of support for democracy and other main variables. However, as the sample used in each regression changes depending on the data availability of the inequality measure and all other variables used by regression, Appendix A2 provides detailed summary statistics by samples and inequality measures.<sup>111</sup>

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<sup>108</sup> The survey projects used by Claassen (2020) were the World and European Values Surveys, the Afrobarometer, Arab Barometer, Latinobarometer, Asiabarometer, Asian Barometer, South Asia Barometer, New Europe Barometer, Latin American Public Opinion Project, Eurobarometer, European Social Survey, Pew Global Attitudes Project, and the Comparative Study of Electoral Systems.

<sup>109</sup> Claassen (2020) provides an explanation of the model. See the supporting information of his article for further details.

<sup>110</sup> The dataset is of 2535 support for democratic estimates for 133 countries over 30 years when using the Gini index as a measure of income inequality. Bahrain has been excluded from the dataset because the inequality index is available for only one period.

<sup>111</sup> I use the standard deviation from Appendix A2 to interpret the results of Table 2 and Table 3.

**Table 1: Summary Statistics**

	Democracies		Autocracies		Total	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Support for Democracy	0.21	0.89	-0.39	0.72	0.03	0.89
Gini Index	37.24	9.69	40.74	7.60	38.44	9.16
Palma Ratio	5.47	3.97	6.33	3.99	5.79	4.00
Share top 1%	0.15	0.06	0.17	0.06	0.16	0.06
Political Corruption	0.33	0.27	0.68	0.20	0.48	0.30
Judicial Corruption Index	0.88	1.45	-0.68	1.03	0.22	1.50
Clientelism Index	0.33	0.24	0.59	0.20	0.44	0.26
GDP p.c. (2010 US\$)	18053	20470	4388	7690	12232	17650
GDP p.c. growth	0.02	0.04	0.02	0.08	0.02	0.06
Primary G. S. E.	102.56	12.76	97.38	19.87	100.39	16.32
Secondary G. S. E.	85.03	28.65	56.98	29.92	73.70	32.32
Tertiary S. E.	38.48	24.68	17.70	18.22	29.67	24.33
Unemployment Rate	8.58	5.94	7.98	7.08	8.38	6.49
Electoral Democracy	0.75	0.13	0.29	0.12	0.55	0.26
Liberal Democracy	0.64	0.17	0.18	0.09	0.44	0.27
State Capacity	1.05	0.88	-0.01	0.61	0.59	0.93
Natural Resources Dep.	4.64	6.49	11.15	14.15	6.92	10.35
<i>N</i>	2355		1754		4185	

## Explicative variables

I use three measures of income inequality. The principal inequality measure is the Gini index (Gini) of the Standardized World Income Inequality Database (SWIID, version 9) created by Solt (2020).<sup>112</sup> The Gini coefficient ranges from 0 to 100 (between 17.5 and 67.2, in the data of this study). A country with a coefficient of 100 would be one in which the richest own all of the country's income. SWIID remains the best option for measuring income inequality, as it has the highest coverage and the best comparability across countries and over time. The SWIID Gini measures evolve and improve with each new version.<sup>113</sup> The two alternative measures of income inequality used are the share of total income that accrues to the top 1% of the population (Top 1% Income Share) and the Palma ratio. The former comes from the World Income Database (WID). It captures the income inequality between the 1% richest member of society and the rest of the population. The latter is the ratio of "the pre-tax national income of the richest 10% of the population" to "the pre-tax national income of the poorest 40% of the population".

<sup>112</sup> It takes a Bayesian approach to standardise observations collected from various sources and uses the Luxembourg Income Survey data as the standard. The principal sources are the OECD income distribution database, the socio-economic database for Latin America and the Caribbean generated by CEDLAS and the World Bank, Eurostat, the World Bank's PovcalNet, the United Nations Economic Commission for Latin America and the Caribbean, national statistical offices around the world and many other sources.

<sup>113</sup> SWIID data collection and methodology are detailed and freely available for each new version. See <https://fsolt.org/> for further detail.

Also, the pre-tax income for the top 10% and the bottom 40% of the population come from WID. Palma (2011) was the first to propose this ratio. According to him, changes in inequality are determined exclusively by changes in the income level of the richest 10% and the poorest 40%, as those within the top 50% and 90% of income levels (middle group) hold a stable share of GNI (around 50%).<sup>114</sup> A Palma ratio of five indicates that the richest 10% hold five times the income of the poorest 40% of the nation.<sup>115</sup>

The principal measure of corruption is the PCI index from the Varieties of Democracy dataset (V-Dem, version 11.1). It includes the following types of corruption executive, legislative, judicial and bureaucratic, as well as grand and petty corruption. Furthermore, it covers a wide range of corrupt behaviours such as bribes, undocumented extra payments, kickbacks, contracts for personal gain, future employment, theft, embezzlement and misappropriation of public funds or other state resources while also considering the catch-all term of “material inducements”. The political corruption index captures the relevant meaning of corruption through its various conceptualisations.<sup>116</sup> It also resonates with the academic use of the term corruption as the use of public office for private gain since each indicator links public officials to corrupt acts.<sup>117</sup> The political corruption index ranges from 0 to 1, where 0 is the lowest and 1 is the highest level of corruption.

This research uses the index of clientelism as a corruption alternative measure, whose data also come from the V-Dem dataset, to test H3. The clientelism index range is from 0 to 1, where higher scores indicate a higher degree of clientelism.<sup>118</sup> Clientelism is chosen as an

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<sup>114</sup> Cogham et al. (2016) tested the validity of the Palma ratio as proposed by Palma (2011). They found that the data for 141 counties between 1990 and 2012 reaffirms the Palma proposition and that it is getting stronger over time. Palma (2014) examines whether there is a remarkable current homogeneity in the income shares of the middle and upper-middle strata across the world in 131 countries at different times. He tests whether the foundation of Palma’s ratio, the 50/50 rule, in which half of each country’s population within deciles 5 to 9 tends to appropriate around 50% of national income, is a historically stable stylised fact or whether it is a new phenomenon. Their results suggest those countries that were already in the 50/50 rule remain there, and those that were not, converge in that direction.

<sup>115</sup> Cobham et al. (2016) and Cobham & Sumner (2014) give two main arguments for why the Palma ratio is a good measure of inequality. First, the Palma ratio points to where the inequality issue is most sensitive: at the top (10%) and bottom (40%) of the income scale. The Gini index is not well equipped to address this type of inequality, as it is overly sensitive to the middle of the distribution. Second, it is a measure easier to understand and interpret.

<sup>116</sup> Other corruption indicators - Transparency International’s Corruption Perception Index (CPI) and the World Bank’s Business Environment and Enterprise Performance Survey (BEEPS), among others - relied on the information on public sector or bureaucratic corruption but ignored executive, legislative and judicial corruption (McMann et al., 2021, p. 9).

<sup>117</sup> It includes “granting favours in exchange,” “stealing, embezzling, or misappropriating public funds,” or “abusing their position.”

<sup>118</sup> Clientelistic relations include the selective and contingent distribution of resources (goods, services, jobs, money, etc.) in exchange for political support. A Bayesian factor analysis model is used to form this index, in which the indicators taken into account are vote buying, private versus public goods, and whether there are clientelistic or programmatic party linkages (Coppedge et al., 2021).

alternative measure of corruption because, after the political corruption index, it better captures overall corruption in highly unstable or autocratic countries.

While some scholars will say that clientelism is not a good measure of corruption because it involves practices other than vote-buying that are not necessarily considered corrupt and are culturally accepted by citizens (e.g. patronage). I argue that clientelism is a good measure of corruption for the following reasons. In autocratic systems, patronage is a widely used recruitment method in which patrons exchange posts for money, goods or services. This hierarchical network built on patronage allows the regime to regulate opportunities for corruption, generate loyalty and create socio-economic dependence (Hicken, 2011; Hollyer & Wantchekon, 2015). It allows the use of corruption rents as an incentive mechanism, assigning more lucrative positions (high rents extraction) to those who are with the government and punishing for investigations and prosecution those who are not (Hollyer & Wantchekon, 2015). Electoral autocratic regimes use clientelist networks to maintain their hold on power, which perpetuates or increases their corrupt practices (Lust-Okar, 2006, 2009). In young democracies, as political candidates cannot credibly commit to delivering goods and services for all, they rely on clientelistic networks to make credible appeals to narrow groups to win elections (Keefer, 2007; Keefer & Vlaicu, 2008). In democracies, clientelism is an instrument for building networks of loyal support, which tend to be more transactional (vote-buying, targeting the delivery of goods and services) and less hierarchical than in autocracies (Hicken, 2011). As we can see, clientelism generates a greater possibility of future corrupt exchanges, even when these practices are opaque to the citizenry as a whole.

## **Control variables**

The economic, socioeconomic and political variables included in this study are as follows.

***Economic Development*** is the log of GDP per capita in 2010 US dollars. Per capita GDP data were drawn from the World Bank World Development Indicators (WDI) database. Modernisation theorist suggests that democracy is more likely to emerge as countries develop, and once established, democracy is more likely to survive in wealthy countries (Lipset, 1959).<sup>119</sup>

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<sup>119</sup> Other scholars argue that economic development matters once democracy is established but do not validate the idea that democracy is a by-product of economic development as Lipset believed, instead, they consider that

**Economic growth** is the growth of GDP per capita. Scholars argued that economic growth and, in particular, economic crisis affect regime survival, implicitly suggesting that it may affect support for democracy (Diamond & Linz, 1989; Haggard & Kaufman, 1995; Przeworski & Limongi, 1997; Teorell, 2010).

The **educational background** variables are primary, secondary and tertiary school enrolment rates taken from the WDI database. Missing values for tertiary school enrolment were supplemented with the updated data set from Barro & Lee (2021). Missing values between two point estimates within each country were replaced by the interpolated estimate found using Stata `ipolate` command. The relationship between the level of education and support for democracy has mixed results, with some studies finding a positive relationship and others a negative one (e.g. Andersen, 2012; Krieckhaus et al., 2014; Magalhães, 2014; Norris, 1999; Wu & Chang, 2019).

The **unemployment rate** comes from the International Labour Organization (ILOSTAT) database. The unemployment rate may erode democratic support. First, it affects specific support for democracy, “satisfaction with democracy” (Wagner et al., 2009). It may then erode diffuse support if the unemployment rate remains high for a period long enough (Boräng et al., 2016).

**Democracy** measure comes from the V-Dem project.<sup>120</sup> The two main measures of democracy used are electoral democracy (polyarchy) and liberal democracy (LibDem) index.<sup>121</sup> The empirical literature suggests a positive relationship between democracy and democratic support (Claassen, 2020; Inglehart, 2003). Other democratic indicators, such as democratic duration and regime transition, are positively associated with democracy and democratic support (Anderson & Tverdova, 2003; Houle, 2009; Inglehart & Welzel, 2005).<sup>122</sup>

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political actors pursuing their goals may or may not establish democracy at any level of development (Przeworski & Limongi, 1997; O'Donnell et al., 1986).

<sup>120</sup> V-Dem measures of democracy have several advantages with respect to Polity IV, Freedom House and the dichotomous indicator of democracy. First, it derives its different conceptualisation of democracy from the political economy literature on democracy, taking into account its multiple nature. It considers five indices of democracy electoral, liberal, participatory, egalitarian, egalitarian and deliberative democracy. Second, each democracy index is disaggregated into its main subcomponents, which also are measured by multiple indicators. Third, multiple independent national experts code each indicator collected by V-Dem, and then an inter-coder reliability test is incorporated into a Bayesian measurement model to reduce measurement error. Fourth, each item is combined using Bayesian factor analysis, which allows for a consistency check between the data and theory. The democracy indices are then aggregated using an additive or multiplicative approach, depending on the particular conceptualisation of each index. The index aggregation rules are clear and well-defined (Coppedge et al., 2020). Finally, V-Dem has a broader coverage across countries and over time. See also (Coppedge et al., 2015).

<sup>121</sup> The liberal democracy index is an aggregate index composed of two indexes, the polyarchy index and the liberal index. The liberal component is significant in all specification models when the polyarchy index is used to measure democracy, so I incorporate this index as a control variable in these cases.

<sup>122</sup> Some studies control for the democratic duration when studying the relationship between democracy and corruption (Rock, 2017; Treisman, 2000).

**Other democracy indicators:** A dichotomous democracy variable (*ad*), since 1800, is constructed to determine the number of consecutive years of **regime duration** (*d\_row*) and whether a country has transitioned from one regime to another (*dtr\_row*). The information used to generate the dichotomous democracy comes from the Regime of the World (RoW) measure of the V-Dem database. It has a value of 0 if the RoW classification of the regime considers it a “Closed Autocracy” or “Electoral Autocracy” and has a value of 1 if it considers it an “Electoral Democracy” or “Liberal Democracy”. If countries were colonies or former blocks, regime duration starts at their independence or separation. Also, coming from V-Dem, the Electoral Democracy Index (EDI) is used to supplement missing values. If the EDI index is superior to 0.5, a country is considered democratic. In the absence of information on the EDI index, the missing values were supplemented with historical information by country. Missing value “.” is assigned to the years in which the country is considered “occupied”. **Regime transition** (*dtr\_row*) is generated as follows. It takes the value of “-1” if there is a democratic breakdown, “0” if there is no change of regime and “1” if there is a transition to democracy. Each time the transition variables change, the regime duration (*d\_row*) starts at 1. **Democratic (autocratic) duration** measures the years of consecutive democracy (autocracy) in a country. It is the product of regime duration and the dichotomous democracy variable.

**State Capacity** measure comes from Hanson & Sigman’s (2021) database. Some researchers argue that high levels of state capacity reinforce the legitimacy of a political system through increased provision of public services (Hanson, 2015; Moon & Dixon, 1985). Others also argue that State capacity and democracy are substitutes (Cronert & Hadenius, 2021; Hanson, 2015) or complement each other (Cronert & Hadenius, 2021; Fukuyama, 2005; Wang, 2003).

The **natural resource dependence** is composed of summing ores, fuel and metals exports over GDP from the WDI database. There is a consensus in the literature that natural resource dependence has strong anti-democratic effects, as it tends to make states less democratic (Brooks & Kurtz, 2016; Lam & Wantchekon, 2003; Ross, 2001; Wantchekon, 2002).

A **Crisis** variable is a dummy constructed using Laeven & Valencia (2020), the Global Crisis Data from the Behavioral Finance and Finance Stability (BFFS) database and Graham et al. (2017). It takes the value of 1 if one or more of the following occur; banking, sovereign debt, currency and inflation crises.

### 3.5. Empirical Strategy

The hypotheses are tested using an econometric specification of country-year panel data presented below. It includes the endogenous variable Support for democracy ( $SFD_{it}$ ), the principal explicative variables Inequality ( $I_{it}$ ) and Corruption ( $C_{it}$ ), a set of control variables ( $CV_{it}'$ ), a fixed effect control ( $\mu_i$ ) and the error term ( $\varepsilon_{it}$ ).

$$\begin{aligned} SFD_{it} &= \phi_1 I_{it} + \phi_2 C_{it} + CV_{it}'\Gamma + \mu_i + \varepsilon_{it} \\ I_{it} &= Z_1'_{it}\alpha + CV_{it}'\Omega + \mu_{1i} + \varepsilon_{1it} \\ C_{it} &= Z_2'_{it}\beta + CV_{it}'\Psi + \mu_{2i} + \varepsilon_{2it} \end{aligned}$$

The hypotheses of this study are estimated with a fixed-effect model since the Hausman test rejects the null hypothesis, according to which individual-specific unobserved effects are uncorrelated with the conditioning regressors of the model. Moreover, the cluster option is employed to control for heteroskedasticity and autocorrelation.<sup>123</sup> I use an instrumental variables approach to address potential problems of simultaneous causality between explanatory variables and support for democracy. Because support for democracy may decrease inequality and corruption, then OLS estimates may be biased. The vectors  $Z_1'_{it}$  and  $Z_2'_{it}$  are the set of instruments of inequality and corruption, respectively.

In the empirical literature, most of the existing instruments for inequality and corruption are time-invariant (e.g. Easterly, 2007; Gallup & Such, 2000; Hofstede et al., 2010; Mauro, 2015). One of the few time-variant instruments used for inequality is “mature cohort size” relative to the adult population (Leigh, 2003; You, 2015; You & Khagram, 2005). As Higgins & Williamson (2002) show, the size of the mature cohort is a powerful predictor of inequality across countries and within the United States.<sup>124</sup> Following this literature, I use “mature cohort size” as an instrument for inequality. However, the former definition of mature cohort size as the ratio of “the population 40 to 59 years old” to “the population 15 to 69 years old” is changed. Instead, I defined it as the ratio of “the population 35 to 59 years old” to “the population 15 to 69 years old” because it is a more significant predictor of inequality than the former in this

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<sup>123</sup> The test for heteroskedasticity rejects the null hypothesis of constant variance (homoskedasticity). The Wooldridge test of serial correlation also rejects the null hypothesis of no first-order correlation.

<sup>124</sup> The idea is based on the cohort size hypothesis, according to which fat cohorts tend to have lower rewards as they generate a surplus in the labour market that reduces their incomes. Therefore, when those fat cohorts lie at the top of the life-cycle earnings (middle of the age-earnings curve), inequality is reduced. On the contrary, when the fat cohorts are in the tails (young or old adults), inequality increases.



panel data study. In addition, different lags of inequality measures are also used to instrument it. The year(s) lags of mature cohort and inequality variables used as instruments for inequality changes according to the model specification.<sup>125</sup>

The main instrument of corruption is the 1-year lag of the judicial corruption indicator. I suggest this instrument because it is crucial to have a well-functioning judicial system to deal with corruption problems. The judicial corruption decision indicator is a standardised measure that goes from high to low levels of judicial corruption.<sup>126</sup> The perception of corruption in the judicial system erodes citizens' trust in all its essential functions and perpetuates unfair practices, which undermines democracy and democratic support. (Gloppen, 2014; Danileț, 2009). Judicial corruption indicator differs from the other types of corruption indicators since it links citizens as actors when linking public officials to corrupt acts by asking: How often do individuals or businesses make undocumented extra payments or bribes to speed up or delay the process, or to obtain a favourable judicial decision? Hence, it allows this measure to be used as the main determinant of perceived corruption, as the judicial system is the last resort to which citizens turn to resolve problems, such as conflict resolution, law enforcement, protection of property rights, enforcement of contracts and protection of individual rights against social and governmental oppression.

Moreover, as time-variant instruments are rare and difficult to find, I use the existing literature to see if the lag of other variables highly correlated with inequality and corruption measures can be good instruments for them. Existing literature argues that there is a high correlation between either natural resource dependence and inequality or natural resource dependence and corruption. Bourguignon & Morrisson (1990) found that mineral resources endowment is a significant determinant of inequality in developing countries. Other studies find a strong relationship between natural resources and inequality (e.g. Buccellato & Mickiewicz, 2009; Farzanegan & Krieger, 2019; Goderis & Malone, 2011; Parcero & Papyrakis, 2016; Kim & Lin, 2018). In addition, Leite & Weidmann (1999) argue that natural resources incentivise rent-seeking behaviour and are important determinants of corruption. There is also considerable empirical evidence of the relationship between natural resources and corruption (e.g. Aslaksen, 2007; Busse & Gröning, 2013; Dong et al., 2019; Okada & Samreth, 2017; Vincent, 2010). Rents from natural resources are composed of minerals, oil, coal, natural gas and forest rents. I carried out an analysis of the correlation between the different types of natural resource rent and inequality, and also with corruption, to determine possible instruments. The

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<sup>125</sup> See Appendix A3 for the regression used in Table 3.

<sup>126</sup> For further detail, see Pemstein et al. (2021).

years-lag of natural resource rent types used as instruments for inequality and corruption changes according to the model specification. Appendix A3 shows Table 2 first stage regressions and the list of instruments.

To test H3, I use the following linear model. It includes the inequality measure ( $I_{it}$ ) as the principal variable, a set of control variables ( $CV_{it}'$ ), a fixed effect control ( $\mu_i$ ) and the error term ( $\varepsilon_{it}$ ):

$$SFD_{it} = \phi_1 I_{it} + CV_{it}'\Gamma + \mu_i + \varepsilon_{it}$$

$$I_{it} = Z_1'_{it}\alpha + CV_{it}'\Omega + \mu_{1i} + \varepsilon_{1it}$$

A fixed-effect model with the robust option is employed to control for heteroskedasticity.<sup>127</sup> I implement an instrumental variable approach to address the problems of simultaneous causality between inequality and support for democracy. The vectors  $Z_1'_{it}$  represent the set of instruments used for inequality. The main instrument is the mature cohort size. The lag used of this variable as an instrument depends on the specification of the regression. Appendix A4 provides the first stage regression and the list of instruments by regression.

All instruments used in this research to test the three hypotheses are the lags of the variables highly correlated with the main explanatory regressors (i.e. inequality and corruption). I assume that the instrumental variables exert no direct effect on support for democracy.

### 3.6. Empirical results

Table 2 shows the results of the first two hypotheses, according to which increases in inequality and corruption are expected to have a negative effect on support for democracy. It presents the IV regression results for different measures of inequality and democracy. All models use an IV panel fixed effect model with the robust and cluster option to control for unobserved country-specific factors, heterogeneity among countries and serial correlation. Inequality and corruption are the instrumented variables in each regression. Appendix A5 and A6 show the pooled OLS and FE estimates, respectively. According to Table 2, inequality and corruption have a negative and significant effect on support for democracy. For instance, in model 1, one standard deviation (9.22) increase in inequality (Gini) is associated with a 0.59 standard deviation (0.90) decline in support for democracy. Likewise, one standard deviation

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<sup>127</sup> The countries with non-democratic experience in my dataset are 24-26. The cluster option is not used, as the number of countries is too small with the number of observations of 2-19.

(0.31) increase in the political corruption index is associated with a 0.31 standard deviation (0.90) decrease in support for democracy.<sup>128</sup> Comparing the IV with the OLS and FE results, the magnitude of the standardised coefficients for Gini is -0.59 (IV1), which is larger than the -0.22 (OLS1) and -0.27 (FE1). Moreover, the magnitude of the standardised coefficients for the political corruption index is also larger, -0.31 (IV1) versus -0.07 (OLS1) and -0.005 (FE1), with the IV coefficient being significant and not the OLS nor the FE coefficients. These results suggest that OLS and FE estimates are biased downward for Gini and corruption.

Most control variables, such as democratic duration, school enrolment, natural resource dependence, state capacity and crisis, do not have a significant impact on support for democracy. The empirical test finds no support for the notion that higher economic development increases the support for democracy. Instead, economic development appears to be negatively associated with support for democracy, but its coefficient is not significant. This finding is in line with previous empirical research on support for democracy (e.g. Anderson & Singer, 2008; Magalhães, 2014; Wagner et al., 2009). The control variables, with a significant impact on support for democracy, are the unemployment rate, democracy index and autocratic duration. The unemployment rate, liberal democracy (LDI) and liberal index are negatively associated with support for democracy. Electoral democracy (EDI) has a quadratic relationship with support for democracy. Results suggest that EDI increases support for democracy in countries with EDI inferior to 0.58 and decreases support for democracy in countries with EDI superior to 0.58. Autocratic duration has a significant positive relationship with support for democracy. It suggests that the greater a country's autocratic experience is, the greater its support for democracy will be.

I find evidence for H1; inequality is negatively associated with support for democracy, using different measures of inequality and democracy. Inequality has the largest causal effect on support for democracy when inequality is measured by the Gini index or the Palma ratio. In model 1, one standard deviation increase in inequality decreases support for democracy by about three-fifths of a standard deviation, a substantially important effect. I re-scale all inequality variables between 0 and 1 and run specifications (1), (3) and (5) to make the inequality and corruption coefficients comparable. The coefficients are -5.81 for Gini and -4.73 for the Palma ratio, all with a net effect in magnitude higher than any other variable in each

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<sup>128</sup> Put differently, one point increase on the Gini index (measured on a 0 to 100 scale) decreases support for democracy by 0.06 standard deviation and 1 point increase in the political corruption index (measured on a 0 to 1 scale) reduces support for democracy by 1 standard deviations. See Appendix A2 for the summary statistics of the samples used for the estimations.

regression.<sup>129</sup> However, when inequality is measured by the share of total income accruing to the top 1% of the population, corruption has a largest causal effect than inequality on support for democracy. The standardised coefficients for corruption and inequality in (5) are -0.50 and -0.24, respectively.

**Table 2: Support for Democracy**

	Gini		Palma ratio		Share top 1%	
	EDI (1)	LDI (2)	EDI (3)	LDI (4)	EDI (5)	LDI (6)
Inequality	-0.058*** (0.02)	-0.059*** (0.02)	-0.104** (0.05)	-0.103** (0.05)	-3.577** (1.66)	-3.706** (1.61)
Corruption	-0.894** (0.44)	-0.938** (0.45)	-1.082** (0.53)	-1.083** (0.51)	-1.442** (0.60)	-1.368** (0.64)
GDP p.c. (2010 US\$)	-0.189 (0.16)	-0.240 (0.16)	-0.193 (0.16)	-0.247 (0.16)	-0.137 (0.17)	-0.168 (0.18)
GDP p.c. growth	0.421* (0.24)	0.379 (0.24)	0.408* (0.24)	0.347 (0.24)	0.382 (0.23)	0.356 (0.23)
Primary G.S.E.	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)
Secondary G.S.E.	-0.003 (0.00)	-0.003 (0.00)	0.001 (0.00)	0.001 (0.00)	-0.002 (0.00)	-0.001 (0.00)
Tertiary S.E.	0.002 (0.00)	0.002 (0.00)	0.002 (0.00)	0.002 (0.00)	0.004 (0.00)	0.004 (0.00)
Unemployment rate	-0.019*** (0.01)	-0.020*** (0.01)	-0.023*** (0.01)	-0.024*** (0.01)	-0.023*** (0.01)	-0.024*** (0.01)
Democracy Index	3.730** (1.48)	-1.100*** (0.37)	3.752** (1.60)	-1.080*** (0.42)	4.651*** (1.47)	-1.145*** (0.43)
Democracy Index sq.	-3.211** (1.30)		-3.192** (1.41)		-4.099*** (1.31)	
Liberal Index	-1.214*** (0.42)		-1.244** (0.49)		-1.284*** (0.49)	
State Capacity	-0.005 (0.14)	0.009 (0.14)	-0.112 (0.16)	-0.084 (0.16)	-0.127 (0.14)	-0.097 (0.14)
Natural res. dep.	-0.001 (0.03)	-0.002 (0.03)	-0.008 (0.03)	-0.009 (0.03)	-0.003 (0.03)	-0.001 (0.03)
Democratic duration	-0.005 (0.00)	-0.004 (0.01)	-0.005 (0.00)	-0.004 (0.01)	-0.004 (0.01)	-0.004 (0.01)
Autocratic duration	0.004*** (0.00)	0.003*** (0.00)	0.005** (0.00)	0.005** (0.00)	0.004** (0.00)	0.004** (0.00)
Regimen Transition	0.063 (0.05)	0.085* (0.05)	0.067 (0.06)	0.098* (0.06)	0.019 (0.06)	0.062 (0.05)
Crisis	0.002 (0.04)	0.008 (0.04)	0.001 (0.04)	0.007 (0.04)	-0.013 (0.04)	-0.005 (0.05)
N observations	1741	1741	1769	1769	1688	1687
N countries	115	115	115	115	118	118
UnderID test (p-val)	0.006	0.008	0.000	0.000	0.129	0.139
Weak ID test F-stat	28.50	26.71	15.90	15.46	17.26	17.04
S-Y cv IV bias (5%)					11.04	11.04
S-Y cv IV size (10%)	13.43	13.43	7.03	7.03	16.87	16.87
Hansen J (p-val)	0.767	0.676			0.618	0.527
Endog. test (p-val)	0.017	0.013	0.011	0.006	0.011	0.024

Note: Heteroskedasticity-robust standard errors, adjusted for clustering at the country level, are presented in parentheses. Support for Democracy is standardised. All educational background control variables are lagged 1-year.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

<sup>129</sup> The results of each regression with the re-scaled inequality measures are presented in Annexe A7.

Furthermore, the data also confirm H2. Corruption has a significant negative effect on support for democracy. In model 1, one standard deviation increase in corruption decreases support for democracy by about one-third of a standard deviation. The magnitude of the standardised coefficients of corruption becomes larger (0.38 and 0.50) when the Palma ratio (model 3) and Share top 1% (model 5) are the measures of inequality.

H3 examines the effect of inequality in non-democratic countries to test whether the negative effect of inequality on support for democracy comes from citizens' long-term experience with the inefficient way the democratic political system handles this issue. Table 3 shows IV regression results and control for unobserved country-specific factors and heterogeneity. Inequality is the instrumented variable in each regression. Equations with alternative measures of inequality (Palma ratio and Share top 1%) and corruption (Judicial corruption and Clientelism index) are estimated. As expected, in non-democratic countries, inequality has a significant positive effect on support for democracy. The results are robust to the different specifications of inequality and corruption. One standard deviation increase in inequality (Gini, Palma ratio and Share top 1%) increases support for democracy by about (0.84, 0.85 and 0.95) of a standard deviation, respectively.<sup>130</sup> Inequality measures have the strongest effect on support for democracy.

Moreover, all corruption measures have a positive and significant effect on support for democracy. Two other variables with a significant effect across specifications are tertiary school enrolment and state capacity. Tertiary school enrolment is positively associated with support for democracy. Lipset's (1959) classic argument that high levels of education have a positive effect on democracy is valid for non-democratic countries. State capacity is negatively associated with support for democracy. It suggests that greater state capacity (to deliver goods and services, use military force, and extract resources and rents to finance itself) diminishes support for democracy. Countries with more years living as non-democratic tend to have higher support for democracy. Lastly, GDP per capita has a significant positive effect on support for democracy when the Gini index is used to measure inequality.

In sum, inequality has the strongest effect on support for democracy. The results are robust for different measures of inequality, democracy and corruption. Inequality increases support for democracy in autocratic countries with no democratic experience. Instead, when the whole sample is considered, it erodes support for democracy. Likewise, corruption increases support

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<sup>130</sup> In Model 1, one standard deviation (6.13) increase in Gini is associated with a 0.98 standard deviation (0.69) increase in support for democracy. In model 4, an increase of one standard deviation (2.01) in the Palma ratio is associated with a 0.68 standard deviation (0.70) increase in support for democracy. In model 7, one standard deviation (0.04) increase in Share top 1% is associated with a 0.46 standard deviation (0.70) increase in support for democracy.

for democracy in countries without democratic experience. However, it decreases support for democracies in the whole sample. The empirical results suggest that in countries with long experience as democracies, citizens have decreased their support for democracy because they are discontent with how democratic political systems have been handled and probably continue to handle issues such as inequality and corruption

**Table 3: Support for Democracy in Autocratic Countries**

	Gini		Palma ratio		Share top 1%	
	PCI (1)	CI (2)	PCI (3)	CI (4)	PCI (5)	CI(6)
Inequality	0.094** (0.05)	0.104** (0.05)	0.297** (0.13)	0.252** (0.10)	16.546*** (5.41)	16.483*** (5.68)
Corruption	1.921*** (0.48)	1.717*** (0.41)	1.436** (0.70)	0.980** (0.46)	1.615*** (0.61)	1.310** (0.44)
GDP p.c. (2010 US\$)	0.523*** (0.15)	0.132 (0.15)	0.041 (0.17)	-0.224 (0.17)	0.197 (0.18)	-0.058 (0.19)
GDP p.c. growth	0.139 (0.30)	0.074 (0.32)	0.046 (0.29)	0.267 (0.30)	0.445 (0.43)	0.371 (0.43)
Primary G.S.E.	0.007 (0.01)	0.007 (0.01)	0.010*** (0.01)	0.009 (0.01)	0.020*** (0.01)	0.020*** (0.01)
Secondary G.S.E.	-0.030*** (0.01)	-0.031*** (0.01)	-0.023*** (0.01)	-0.023*** (0.01)	-0.031*** (0.01)	-0.030*** (0.01)
Tertiary S.E.	0.008** (0.00)	0.012*** (0.00)	0.010* (0.01)	0.015*** (0.01)	0.003 (0.01)	0.07 (0.01)
Unemployment rate	-0.038** (0.02)	-0.027 (0.02)	-0.047*** (0.02)	-0.037* (0.02)	-0.039** (0.02)	-0.030 (0.02)
Democracy Index	0.286 (0.75)	0.638 (0.69)	-0.198 (0.86)	-0.139 (0.80)	1.205 (1.02)	1.606 (1.00)
State Capacity	-0.556*** (0.16)	-0.428*** (0.16)	-0.690*** (0.19)	-0.657*** (0.20)	-0.840*** (0.22)	-0.753*** (0.24)
Natural res. dep.	-0.089** (0.04)	-0.100*** (0.04)	-0.018 (0.07)	-0.030 (0.07)	-0.061 (0.04)	-0.076** (0.04)
Autocratic duration	0.007 (0.01)	0.024** (0.01)	0.024** (0.01)	0.033*** (0.01)	0.031** (0.01)	0.037*** (0.01)
Crisis	0.040 (0.05)	0.021 (0.04)	0.062 (0.06)	0.036 (0.06)	0.115 (0.09)	0.081 (0.09)
Reg. of the World	-0.605* (0.33)	-0.576** (0.25)	-0.649** (0.35)	-0.569** (0.27)	-0.713* (0.40)	-0.666** (0.32)
N observations	225	223	212	209	268	284
N countries	24	24	23	23	27	27
UnderID test (p-val)	0.000	0.000	0.000	0.000	0.000	0.000
Weak ID test F-stat	31.81	24.66	27.00	23.05	26.65	30.20
S-Y cv IV bias (5%)	13.91	16.85		13.91		
S-Y cv IV size (10%)	22.30	24.58	19.93	22.30	16.38	16.38
Hansen J (p-val)	0.274	0.356	0.241	0.270		
Endog. test (p-val)	0.000	0.002	0.012	0.007	0.000	0.002

Note: Heteroskedasticity-robust standard errors are presented in parentheses. CI = Clientelism Index. Support for Democracy is standardised. The Democracy index is the Liberal Democracy Index. All educational background control variables are lagged 1-year.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

### 3.7. Conclusions

This research argues and empirically validates the hypothesis that inequality and corruption erode support for democracy. The results are robust across specifications and for alternative measures for inequality, corruption and democracy. Inequality is the most powerful determinant of support for democracy. Corruption is a strong and significant ( $p < 0.005$ ) determinant of support for democracy across specifications and samples. Furthermore, the sign of the inequality and corruption coefficients change in the same direction. They are positively associated with support for democracy in non-democratic countries and negatively associated with support for democracy in the whole sample (92 countries with large and some experience are democracies and 27 autocracies with no democratic experience). These results highlight that these two longstanding issues matter for the survival of a democratic political system since they play a central role in determining the diffuse support for democracy.

I find evidence that inequality increases support for democracy in autocratic countries with no democratic experience. It is in line with the predictions of the political economy theory. This theory assumes that most individuals are poor and seek to maximise their income. It predicts that democracy is the better political system, as it allows them to use it as a mechanism for redistribution (Acemoglu & Robinson, 2006; Boix, 2003; Meltzer & Richard, 1981). It is also consistent with the model of cultural transmission of political preferences developed in Chapter 2. In countries that start as autocracies, this model predicts that high levels of inequality encourage parental socialisation towards a democratic system. Poor-type parents increase their socialisation level towards a democratic political system because they believe in its principles and expect better redistribution. Rich-type parents decrease their socialisation level towards an autocratic political system since the cost of maintaining it increases with inequality. It implicitly predicts that as socialisation towards a democratic system increases, so does its support, as the proportion of citizens who have democracy as their preferred political system increases.

The findings support what Easton's (1965, 1975) theory suggests. For him, long periods of citizens' discontent with the perceived performance of a political system erode their support for it. I apply it to study how long-standing issues such as inequality and corruption affect support for democracy. This research empirically shows that inequality and corruption have a significant and negative effect on support for democracy. These results are in line with the model prediction in Chapter 2. When incorporating the degree of effectiveness of democracy and corruption into this model, I found that when democracy is not as effective as expected in fulfilling its principles, citizens decrease their socialisation effort towards a democratic political

system. The idea is that inequality and corruption affect the very process of socialisation when they remain long enough, which, in turn, through the erosion of the level of socialisation towards a democratic system, may continually diminish citizens' support for democracy. Furthermore, these findings are consistent with the predictions of performance theories in which inequality and corruption negatively affect support for democracy, as citizens are retrospective when evaluating democracy (Anderson & Tverdova, 2003; Krieckhaus et al, 2014).<sup>131</sup>

This study suggests that citizens, in general, seem to be dissatisfied with the functioning of democratic political systems. Not only inequality and corruption but also the democracy level is negatively associated with support for democracy. These findings highlight that the main challenge for a democratic political system is the fulfilment of its principles. Inequality and corruption do not allow the democratic system to function as it should. They erode the most stable form of support, the diffuse support for democracy which, in turn, threatens the survival of democracy. As warned by various researchers, countries with low support for democracy may fail to consolidate or even reverse to autocracy. In other words, a decline in support for democracy may weaken even the most established democracies (Claassen, 2020; Foa & Mounk, 2016, 2017; Plattner, 2017).

While this investigation advocates for addressing issues like inequality and corruption to improve support for democracy, much work remains to be done. It would be interesting to test the following hypothesis. Do the effects of inequality and corruption on support for democracy differ among economic classes? Does the effect of inequality on support for democracy differ among people with contrasting political system preferences? Does corruption harm people's attitudes towards any political system? In addition, it may be interesting to test what are the main socialisation channels to build support for a political system. Is parental socialisation one of the major channels? Or is horizontal socialisation (e.g. schooling and the media) a better channel?

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<sup>131</sup> In the case of democracy, inequality and corruption have been used as indicators of political system performance (e.g. Anderson & Tverdova, 2003; Cordova & Seligson, 2010; Krieckhaus et al., 2014; Seligson, 2002).



## 3.8. Appendices

### 3.8.1. Appendix A1: List of countries

Consolidates Democracies		Remained Democratic after a Transition (>20 years of D.E.)		With at least 20 years of Democratic Experience	
Country	Obs.	Country	Obs.	Country	Obs.
Australia	21	Argentina	21	Benin	11
Austria	17	Brazil	18	Bolivia	16
Belgium	17	Bulgaria	20	Dominican Republic	17
Botswana	10	Cape Verde	6	Estonia	11
Canada	16	Chile	21	Hungary	13
Costa Rica	20	Colombia	20	India	20
Cyprus	10	Czech Republic	14	Namibia	6
Denmark	25	Ecuador	20	Peru	21
Finland	20	Ghana	16	Turkey	16
France	25	Guatemala	20		
Germany	25	Guyana	8		
Greece	21	Indonesia	15		
Ireland	25	Jamaica	10		
Israel	13	Latvia	9		
Italy	25	Lithuania	9		
Japan	17	Mexico	21		
Mauritius	4	Mongolia	8		
Netherlands	25	Panama	20		
New Zealand	18	Paraguay	17		
Norway	24	Poland	14		
Portugal	25	Romania	17		
Spain	22	Senegal	13		
Sweden	20	Slovak Republic	14		
Switzerland	20	Slovenia	14		
Trinidad & Tobago	6	South Africa	20		
UK	25	South Korea	20		
USA	21	Uruguay	21		
N° countries		N° countries		N° countries	
27		27		9	

## Appendix A1: (Continuation)

Unstable Political System (< 20 years of D.E.)		With at least 20 years of Autocratic Experience		Autocracies	
Country	Obs.	Country	Obs.	Country	Obs.
Albania	18	Armenia	14	Algeria	10
Burkina Faso	9	Bangladesh	14	Azerbaijan	14
Croatia	9	Belarus	15	Bahrain	9
El Salvador	20	Ivory Coast	4	Burundi	4
Georgia	14	Kenya	9	Cambodia	2
Honduras	18	Nepal	2	Cameroon	4
Lesotho	12	Tunisia	5	China	11
Madagascar	11	Zambia	13	Egypt	15
Malawi	14			Eswatini	3
Mali	13			Guinea	3
Moldova	9			Iran	10
Nicaragua	16			Jordan	15
Niger	4			Kazakhstan	11
North Macedonia	14			Kuwait	8
Philippines	20			Kyrgyzstan	13
Serbia	2			Malaysia	13
Sri Lanka	13			Morocco	15
Tanzania	16			Mozambique	12
Thailand	14			Pakistan	19
Ukraine	14			Russia	14
Venezuela	16			Rwanda	9
				Sudan	2
				Togo	4
				Uganda	13
				Vietnam	3
				Yemen	6
				Zimbabwe	15
N° countries	21	N° countries	8	N° countries	27

### 3.8.2. Appendix A2: Summary statistics (by samples and inequality measures)

**Table A21: Summary statistics for the total sample**

	Total sample					
	Gini Index		Palma Ratio		Share top 1%	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Support for Democracy	0.05	0.90	0.05	0.89	0.06	0.89
Inequality measure	37.79	9.22	5.33	3.61	0.16	0.06
Political Corruption	0.42	0.31	0.42	0.31	0.42	0.31
Judicial Corruption	0.56	1.54	0.54	1.54	0.53	1.55
Clientelism Index	0.37	0.26	0.38	0.26	0.38	0.26
log[GDP p.c. 2010 US\$]	8.86	1.40	8.84	1.40	8.86	1.44
GDP p.c. growth	0.03	0.04	0.03	0.04	0.02	0.04
Primary G. S. E.	92.16	8.49	92.02	8.59	91.93	8.76
Secondary G. S. E.	72.29	23.16	71.87	23.33	71.11	23.78
Tertiary S. E.	39.68	24.22	39.24	24.27	39.07	24.65
Unemployment Rate	8.47	5.71	8.45	5.73	8.09	5.67
Electoral Democracy	0.67	0.22	0.67	0.22	0.66	0.23
Liberal Democracy	0.56	0.25	0.55	0.25	0.55	0.25
Liberal Index	0.75	0.21	0.75	0.21	0.74	0.22
State Capacity	1.02	0.84	1.00	0.84	0.98	0.86
Natural Resources Dep.	0.86	1.52	0.85	1.52	0.06	0.89
Democratic duration	26.50	25.73	26.18	32.64	27.26	33.14
Autocratic duration	9.01	0.15	9.15	25.71	9.83	25.68
Crisis	0.28	0.45	0.29	0.45	0.25	0.43
<i>N</i>	1741		1772		1689	

**Table A22: Summary statistics for autocratic countries**

	Autocratic Countries					
	Gini Index		Palma Ratio		Share top 1%	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Support for Democracy	-0.59	0.69	-0.52	0.70	-0.51	0.70
Inequality measure	39.24	6.13	5.48	2.01	0.17	0.04
Political Corruption	0.72	0.15	0.72	0.15	0.72	0.15
Judicial Corruption	-0.75	0.80	-0.79	0.85	-0.79	0.86
Clientelism Index	0.59	0.18	0.59	0.18	0.59	0.18
log[GDP p.c. 2010 US\$]	7.69	0.99	7.80	1.16	7.81	1.17
GDP p.c. growth	0.04	0.05	0.03	0.05	0.03	0.05
Primary G. S. E.	87.84	10.81	87.84	10.43	87.97	10.22
Secondary G. S. E.	57.66	25.30	58.67	25.70	58.80	25.62
Tertiary S. E.	24.35	20.09	23.76	19.19	23.85	19.20
Unemployment Rate	7.24	5.04	6.67	4.94	6.66	4.93
Electoral Democracy	0.29	0.09	0.28	0.09	0.28	0.09
Liberal Democracy	0.18	0.07	0.17	0.07	0.17	0.07
Liberal Index	0.43	0.15	0.42	0.16	0.42	0.17
State Capacity	0.27	0.40	0.24	0.41	0.24	0.41
Natural Resources Dep.	1.61	1.59	1.74	1.74	1.76	1.74
Autocratic duration	54.08	39.77	53.35	39.11	53.54	39.07
Crisis	0.19	0.39	0.18	0.39	0.18	0.38
Reg. of the World	0.78	0.41	0.75	0.43	0.75	0.44
<i>N</i>	225		269		268	

### 3.8.3. Appendix A3: First Stage - Support for Democracy of Table 2

	EDI(1)		EDI(3)		EDI(5)	
	Gini	PCI	Palma-r	PCI	ST1%	PCI
IVs FOR INEQUALITY						
Gini (5-year lag)	0.679*** (0.06)	-0.003 (0.00)				
Mature cohort size (1-year lag)	8.204* (4.84)	0.201 (0.17)				
Gini (1-year lag)			0.306*** (0.05)	-0.001 (0.00)		
Share top 1% (7-year lag)					0.183*** (0.06)	0.061 (0.08)
Coal rents %GDP (12-year lag)					-0.012*** (0.00)	-0.010 (0.01)
IVs FOR CORRUPTION						
Judicial Corruption (1-year lag)	-0.005 (0.20)	-0.116*** (0.02)	0.191 (0.18)	-0.116*** (0.02)		
Judicial Corruption (2-year lag)					0.004 (0.00)	-0.083*** (0.01)
Forest rents %GDP (1-year lag)		-0.003 (0.00)	(0.13)	(0.02)	0.004 (0.00)	-0.002* (0.00)
N observations	1741	1741	1769	1769	1687	1687
N countries	115	115	115	115	118	118

Note: IV = Instrumental variable. Palma-r = Palma ratio. ST1% = Share Top 1%. PCI = Political Corruption Index.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

### 3.8.3. Appendix A3: First Stage - Support for Democracy of Table 2 (Continuation)

	LDI(2)		LDI(4)		LDI(6)	
	Gini	PCI	Palma-r	PCI	ST1%	PCI
IVs FOR INEQUALITY						
Gini (5-year lag)	0.679*** (0.06)	-0.003 (0.00)				
Mature cohort size (1-year lag)	8.178* (4.89)	0.184 (0.17)				
Gini (1-year lag)			0.306*** (0.05)	-0.001 (0.00)		
Share top 1% (7-year lag)					0.182*** (0.05)	0.060 (0.08)
Coal rents %GDP (12-year lag)					-0.012*** (0.00)	-0.010 (0.01)
IVs FOR CORRUPTION						
Judicial Corruption (1-year lag)	0.012 (0.21)	-0.115*** (0.02)	0.176 (0.17)	-0.115*** (0.02)		
Judicial Corruption (2-year lag)					0.003 (0.00)	-0.084*** (0.01)
Forest rents %GDP (1-year lag)					0.004 (0.00)	-0.002* (0.00)
N observations	1741	1741	1769	1769	1687	1687
N countries	115	115	115	115	118	118

Note: IV = Instrumental variable. Palma-r = Palma ratio. ST1% = Share Top 1%. PCI = Political Corruption Index.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

### 3.8.4. Appendix A4: First Stage - Support for Democracy of Table 3

	Gini		Palma ratio		Share Top 1%	
	PCI (1)	CI (2)	PCI (3)	CI (4)	PCI (5)	CI (6)
Gini (9-year lag)	0.205*** (0.03)	0.187*** (0.04)				
Gini (11-year lag)				0.106* (0.06)		
Gini (15-year lag)			-0.042** (0.02)	-0.091*** (0.03)		
Natural res. rents %GDP (9-year lag)	-0.022*** (0.01)	-0.023*** (0.01)				
Mature cohort size (21-year lag)	-14.230*** (3.95)					
Mature cohort size (23-year lag)		-13.304*** (4.31)			-0.412*** (0.08)	-0.448*** (0.08)
Mature cohort size (24-year lag)			-13.868*** (2.17)	-14.289*** (2.06)		
Clientelism (3-year lag)		1.397** (0.67)				
N observations	225	223	212	209	268	268
N countries	24	24	23	23	27	27

Note: IV = Instrumental variable. PCI = Political Corruption Index. CI=Clientelism Index.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

### 3.8.5. Appendix A5: Support for Democracy OLS Estimates

	(1) EDI	(2) LDI	(3) EDI	(4) LDI	(5) EDI	(6) LDI
Inequality	-0.021*** (0.00)	-0.024*** (0.00)	-0.026*** (0.01)	-0.034*** (0.01)	-2.306*** (0.33)	-2.623*** (0.33)
Corruption	-0.208 (0.13)	-0.477*** (0.13)	-0.141 (0.13)	-0.409*** (0.12)	-0.185 (0.13)	-0.445*** (0.12)
GDP p.c. (2010 US\$)	0.309*** (0.03)	0.319*** (0.03)	0.259*** (0.03)	0.295*** (0.03)	0.262*** (0.03)	0.295*** (0.03)
GDP p.c. growth	0.116 (0.42)	0.304 (0.43)	-0.043 (0.42)	0.102 (0.42)	-0.026 (0.41)	0.134 (0.42)
Primary G.S.E.	0.004* (0.00)	0.006** (0.00)	-0.000 (0.00)	0.001 (0.00)	0.001 (0.00)	0.002 (0.00)
Secondary G.S.E.	-0.013*** (0.00)	-0.012*** (0.00)	-0.010*** (0.00)	-0.010*** (0.00)	-0.011*** (0.00)	-0.010*** (0.00)
Tertiary S.E.	-0.006*** (0.00)	-0.006*** (0.00)	-0.005*** (0.00)	-0.005*** (0.00)	-0.005*** (0.00)	-0.005*** (0.00)
Unemployment rate	-0.013*** (0.00)	-0.014*** (0.00)	-0.014*** (0.00)	-0.017*** (0.00)	-0.018*** (0.00)	-0.022*** (0.00)
Democracy Index	-4.096*** (0.64)	0.470*** (0.15)	-4.227*** (0.64)	0.361** (0.14)	-4.125*** (0.63)	0.329** (0.14)
Democracy Index sq.	3.659*** (0.55)		4.036*** (0.54)		3.960*** (0.53)	
Liberal Index	0.522*** (0.19)		0.119 (0.18)		0.079 (0.18)	
State Capacity	0.039 (0.06)	0.051 (0.06)	0.201*** (0.06)	0.190*** (0.06)	0.169*** (0.05)	0.164*** (0.05)
Natural res. dep.	-0.040*** (0.01)	-0.041*** (0.01)	-0.041*** (0.01)	-0.040*** (0.01)	-0.042*** (0.01)	-0.043*** (0.01)
Democratic duration	0.001 (0.00)	0.000 (0.00)	0.001 (0.00)	0.000 (0.00)	0.000 (0.00)	0.000 (0.00)
Autocratic duration	-0.003*** (0.00)	-0.000 (0.00)	-0.003*** (0.00)	-0.000 (0.00)	-0.003*** (0.00)	-0.000 (0.00)
Regimen Transition	0.031 (0.10)	-0.006 (0.10)	0.045 (0.10)	0.005 (0.10)	0.035 (0.10)	-0.006 (0.10)
Crisis	-0.012 (0.04)	-0.014 (0.04)	-0.013 (0.04)	-0.010 (0.04)	-0.011 (0.04)	-0.004 (0.04)
Constant	-0.433 (0.34)	-1.270*** (0.30)	-0.346 (0.33)	-1.586*** (0.29)	-0.186 (0.33)	-1.375*** (0.29)
N observations	1757	1757	1819	1819	1819	1819
R-squared	0.469	0.458	0.448	0.432	0.456	0.441

Note: Ordinary least squares estimates.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

### 3.8.6. Appendix A6: Support for Democracy FE Estimates

	(1) EDI	(2) LDI	(3) EDI	(4) LDI	(5) EDI	(6) LDI
Inequality	-0.026*** (0.01)	-0.026*** (0.01)	-0.006 (0.01)	-0.004 (0.01)	-0.357 (0.31)	-0.239 (0.32)
Corruption	-0.014 (0.14)	0.032 (0.14)	-0.043 (0.14)	0.007 (0.14)	-0.047 (0.14)	0.005 (0.14)
GDP p.c. (2010 US\$)	-0.201*** (0.07)	-0.244*** (0.07)	-0.164*** (0.06)	-0.204*** (0.06)	-0.163*** (0.06)	-0.203*** (0.06)
GDP p.c. growth	0.399** (0.18)	0.342* (0.19)	0.273 (0.18)	0.237 (0.18)	0.284 (0.18)	0.244 (0.18)
Primary G.S.E.	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.002 (0.00)	-0.001 (0.00)	-0.002 (0.00)
Secondary G.S.E.	-0.002 (0.00)	-0.002 (0.00)	0.000 (0.00)	0.001 (0.00)	0.000 (0.00)	0.000 (0.00)
Tertiary S.E.	0.002* (0.00)	0.002* (0.00)	0.001 (0.00)	0.001 (0.00)	0.002* (0.00)	0.001 (0.00)
Unemployment rate	-0.019*** (0.00)	-0.020*** (0.00)	-0.022*** (0.00)	-0.023*** (0.00)	-0.022*** (0.00)	-0.023*** (0.00)
Democracy Index	3.440*** (0.56)	-0.688*** (0.15)	3.409*** (0.55)	-0.644*** (0.15)	3.427*** (0.55)	-0.649*** (0.15)
Democracy Index sq.	-2.818*** (0.50)		-2.905*** (0.49)		-2.926*** (0.49)	
Liberal Index	-0.970*** (0.20)		-0.837*** (0.19)		-0.841*** (0.19)	
State Capacity	0.112** (0.05)	0.139** (0.05)	0.076 (0.05)	0.098* (0.05)	0.079 (0.05)	0.101* (0.05)
Natural res. dep.	-0.006 (0.01)	-0.007 (0.01)	-0.010 (0.01)	-0.011 (0.01)	-0.010 (0.01)	-0.010 (0.01)
Democratic duration	-0.005*** (0.00)	-0.004** (0.00)	-0.006*** (0.00)	-0.005*** (0.00)	-0.006*** (0.00)	-0.005*** (0.00)
Autocratic duration	0.004*** (0.00)	0.003*** (0.00)	0.003*** (0.00)	0.003*** (0.00)	0.003*** (0.00)	0.003*** (0.00)
Regimen Transition	0.071* (0.04)	0.093** (0.04)	0.048 (0.04)	0.078** (0.04)	0.046 (0.04)	0.077* (0.04)
Crisis	-0.002 (0.02)	0.002 (0.02)	0.003 (0.02)	0.006 (0.02)	0.003 (0.02)	0.006 (0.02)
Constant	2.940*** (0.59)	3.806*** (0.58)	1.612*** (0.54)	2.474*** (0.52)	1.630*** (0.54)	2.488*** (0.53)
N observations	1757	1757	1819	1819	1819	1819
N countries	116	116	119	119	119	119
R-squared	0.074	0.052	0.048	0.027	0.048	0.027
R-sq: within	0.143	0.122	0.119	0.098	0.119	0.098
R-sq: between	0.170	0.144	0.247	0.219	0.247	0.220
R-sq: overall	0.199	0.165	0.309	0.276	0.309	0.276

Note: Fixed Effect estimates.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.



### 3.8.7. Appendix A7: Support for Democracy IV Estimates with inequality measures (from 0 to 1)

	Gini		Palma ratio		Share top 1%	
	EDI (1)	LDI (2)	EDI (3)	LDI (4)	EDI (5)	LDI (6)
Inequality 0-1	-5.812*** (2.04)	-5.891*** (2.08)	-4.734** (2.25)	-4.717** (2.27)	-2.221** (1.03)	-2.300** (1.00)
Corruption	-0.894** (0.44)	-0.938** (0.45)	-1.082** (0.53)	-1.083** (0.51)	-1.442** (0.68)	-1.368** (0.64)
GDP p.c. (2010 US\$)	-0.189 (0.16)	-0.240 (0.16)	-0.193 (0.16)	-0.247 (0.16)	-0.137 (0.17)	-0.168 (0.18)
GDP p.c. growth	0.421* (0.24)	0.379 (0.24)	0.408* (0.24)	0.347 (0.24)	0.382 (0.23)	0.356 (0.23)
Primary G.S.E.	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)
Secondary G.S.E.	-0.003 (0.00)	-0.003 (0.00)	0.001 (0.00)	0.001 (0.00)	-0.002 (0.00)	-0.001 (0.00)
Tertiary G.S.E.	0.002 (0.00)	0.002 (0.00)	0.002 (0.00)	0.002 (0.00)	0.004 (0.00)	0.004 (0.00)
Unemployment rate	-0.716*** (0.26)	-0.767*** (0.27)	-0.851*** (0.28)	-0.902*** (0.28)	-0.861*** (0.27)	-0.915*** (0.28)
Democracy Index	3.730** (1.48)	-1.100*** (0.37)	3.752** (1.60)	-1.080*** (0.42)	4.651*** (1.47)	-1.145*** (0.43)
Democracy Index sq.	-3.211** (1.30)		-3.192** (1.41)		-4.099*** (1.31)	
Liberal Index	-1.214*** (0.42)		-1.244** (0.49)		-1.284*** (0.49)	
State Capacity	-0.005 (0.14)	0.009 (0.14)	-0.112 (0.16)	-0.084 (0.16)	-0.127 (0.14)	-0.097 (0.14)
Natural res. dep.	-0.001 (0.03)	-0.002 (0.03)	-0.008 (0.03)	-0.009 (0.03)	-0.003 (0.03)	-0.001 (0.03)
Democratic duration	-0.005 (0.00)	-0.004 (0.01)	-0.005 (0.00)	-0.004 (0.01)	-0.004 (0.01)	-0.004 (0.01)
Autocratic duration	0.004*** (0.00)	0.003*** (0.00)	0.005** (0.00)	0.005** (0.00)	0.004** (0.00)	0.004** (0.00)
Regimen Transition	0.063 (0.05)	0.085* (0.05)	0.067 (0.06)	0.098** (0.06)	0.019 (0.06)	0.062 (0.05)
Crisis	0.002 (0.04)	0.008 (0.04)	0.001 (0.04)	0.007 (0.04)	-0.013 (0.04)	-0.005 (0.05)
N observations	1741	1741	1769	1800	1688	1687
N countries	115	115	115	115	118	118
UnderID test (p-val)	0.006	0.008	0.000	0.000	0.129	0.139
Weak ID test F-stat	28.50	26.71	15.90	21.37	17.26	17.04
S-Y cv IV bias (5%)					11.04	11.04
S-Y cv IV size (10%)	13.43	13.43	7.03	7.03	16.87	16.87
Hansen J (p-val)	0.767	0.676			0.618	0.527
Endog. test (p-val)	0.017	0.013	0.011	0.007	0.011	0.024

Note: Heteroskedasticity-robust standard errors, adjusted for clustering at the country level, are presented in parentheses. Support for Democracy is standardised. Inequality measures are re-scaled from 0 to 1. All educational background control variables are lagged 1-year.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01.



# General Conclusion

This thesis is a collection of three essays that contribute to the understanding of the importance of cultural transmission on political outcomes and support for political systems.

The first chapter argues that interest-group leaders influence policies and electoral outcomes of democratic societies through endorsement and socialisation mechanisms. It demonstrates that it is the case in societies where a leader has strategic behaviour. Indeed, the leader's decision to propose the contract to a candidate depends on the strength of the leader's effect versus the weighted ideological bias of the population towards a political party. That is, the political candidate the leader proposes the contract is most likely to win and, therefore, the platform that favours the leader and his club is the one that is most likely to be implemented. The model shows that the choice of the leader of the influence mechanism depends on the characteristics of the group. Under certain conditions of club size, the mechanism chosen by the leader depends on the difference between the preferences of the leader and the club members. If the divergence is high, the leader prefers to use endorsement. If the convergence is high, on the contrary, the leader prefers socialisation.

In addition, this framework provides important insights about platform change based on the mechanism implemented by the leader. Leader endorsement leads to convergence in flexible policy as it is observable. In contrast, leader socialisation leads to a divergence in the flexible policy, as it is not observable. This generates information asymmetry, as the leader discloses information about his socialisation capacity to only one candidate, which explains the divergence in flexible policies. It also suggests that the higher the effectiveness of the leader mechanism is larger the leader's influence will be. However, the socialisation mechanisms give the leader a greater power of influence, as it increases the test for flexible policy and the convergence of preferences within the club. This theoretical model of leader influence on politics in a model of political competition is only a first step towards a better understanding of this phenomenon.

In the second chapter, a theory to analyse the interaction between political-cultural changes, political systems principles and long-term experience with its performance is developed. It allows the study of factors that led to changes in political culture affecting political transition and the political consolidation of democracies. In particular, this essay studies how factors such as inequality, democratic efficiency, corruption, elite uncertainty about the type of ruler and extra-elite socialisation influence political-cultural changes in societies between economic

classes, which, in turn, provokes political-cultural shifts in political values, political preferences and political attitudes. This theory acknowledges the importance of social networks for individuals since it influences, through socialisation and learning, their values and political preferences. It also recognizes the influence that political systems ideologies and their long-term performance have in the evolution of political preferences of citizens depending on the socio-economic and cultural background from which they have emerged.

The main predictions of this chapter are as follows. First, in autocratic countries, inequality, elite uncertainty about the type of ruler and extra-elite socialisation towards democracy increase the transmission of democratic political culture, leading to a higher likelihood of democratisation in these countries. Second, in democratic countries, the low long-term effectiveness of the democratic system in handling issues such as inequality and corruption decreases the transmission of democratic political culture, harming the consolidation of democracies in these countries. Third, corruption has a corrosive effect, especially on democratic political systems. In general, corruption degrades citizens' beliefs in any political system, leading, in highly corrupt societies, to a very weak transmission of political preferences. The almost inexistent vertical transmission of political preferences in those societies makes the new generation more easily influenced by other agents of socialisation like schooling and the media, which could have devastating effects.

While the theoretical analysis in chapter 2 highlights the importance of inequality, corruption, elite uncertainty and the political system's effectiveness in forging a democratic political culture, it is only a first step towards a better understanding of alternative channels that can explain how the different paths of preferences for a democratic system lead some countries to democratise and consolidate while others do not. For instance, empirically testing how extra-elite socialisation agents, schools and the media, affect the support for democracy in consolidated and unstable democratic countries may be interesting.

The third chapter of this thesis aims to provide empirical evidence about the detrimental effect that inequality and corruption have on diffuse support for democracy. It also tests empirically if the effect of inequality on support for democracy differs between autocratic and democratic countries. The validation of these hypotheses has the purpose of providing support to what the theory of support system has hypothesized for a long time, that long-term experiences with a political system influence the evolution of its support.

The three hypotheses of this chapter are validated empirically and these results are robust across specifications using different measures for inequality, corruption and democracy. I find that inequality and corruption erode democratic support for democracy. The effect of inequality

and corruption is strong and significant, pointing out that inequality and corruption are important determinants of diffuse support for democracy. I also find that inequality has a positive effect on support for democracy in countries with no democratic experience. This result argues in favour of the prediction of the model developed in chapter 2, in which inequality increases the transmission of preferences from a political system when a country starts as an autocracy. Both results support the argument that the negative effect of inequality on support for democracy comes from long periods of citizens' discontent with the perceived performance of the democratic political system in tackling inequality. They also support the prediction of the model developed in chapter 2, in which long-term bad experiences with the performance of democratic political systems on handling inequality decrease the transmission of preferences toward the democratic political system.

As cautioned by various researchers, countries with low levels of support for democracy might fail to consolidate or even reverse to autocracy and a decline in support for democracy might weaken even the most established democracies (Claassen, 2020; Foa & Mounk, 2016, 2017; Plattner, 2017). This research argues in favour of the importance of resolving issues like inequality and corruption to improve support for democracy, however, much work remains to be done.



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