Democracy by demand?

Reinvestigating the effect of mass values on political institutions.

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Abstract

In this thesis I critically investigate and test the central implications of Inglehart and Welzel's (2005) theory claiming that mass values explain democracy. The proposition that democracies will emerge and survive as a result of liberal aspirations among the general public has a long tradition in the political science literature, but has often gone unrecognized in the recent academic literature on democratization. Drawing on several recent insights from the study of modernization theory I build on Inglehart and Welzel's studies in order to *carry out a more refined and critical test of this theory*. My contribution includes methodological, theoretical as well as empirical innovations. Theoretically, I argue that the assumption that values will be converted into collective action and institutional change is challenged by literature pointing to the inherent difficulties of organizing collective action in a society where dictators are able to prevent change through manipulation and coercion. Methodologically, I move past the relationship between values and level of democracy by analyzing the processes of democratic transitions and democratic survival separately, recognizing that they are not necessarily driven by the same causes. At the same time I run more sophisticated estimation techniques which arguably provide more accurate inferences regarding this relationship. Applying these theoretical and methodological insights I discover several novel findings, pointing to a consistent lack of support to the proposition that liberal-democratic values have a positive effect on democracy: Firstly, the positive significant relationship between liberal-democratic values and democracy level found in previous studies disappears, for example, when controlling for country-specific time-invariant factors. Second, there are few indices of a positive effect of liberal-democratic values on neither democratization nor democratic survival. Third, the results surprisingly point in favor of a negative effect of liberal-democratic values on the probability of democratization in the most authoritarian regimes, suggesting that we need to look beyond the theory of Inglehart and Welzel to explain the relation between values and institutional change in authoritarian societies.

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All the flaws in this thesis are my own.

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Contents

1 Introduction

In this thesis I investigate whether there is a relationship between mass values and political institutions. More specifically, do the attitudes of the general public affect democracy, and if so, what is the nature of the relationship between the two? I set out to test the central implications from the theoretical model of Ronald Inglehart and Christian Welzel (2004; 2005; 2006), claiming that certain mass aspirations emphasizing self-expression and autonomy help attain and sustain democracy. This is probably the most well-developed theoretical framework on this particular relationship, and probably also the most cited in the recent democratization literature. Yet, it has not been exposed to testing based on theoretical and methodological advances from other areas of the democratization literature. Hence, I am aiming to provide a more critical and refined test of this theory than that conducted for example in Inglehart and Welzel (2005).

1.1 The puzzle and its relevance

Throughout the month of June 1987 millions of South Koreans poured out into the streets all over the country, chanting slogans such as "Abolish the evil constitution!" and "Down with dictatorship" (Shin 1999). The uprisings were sparked off on June 10th when the National Movement for a Democratic Constitution initiated a rally against incidences of repression by the regime, and culminated in the "Great Peaceful March of the People on June 26th, when 1.4 million people gathered in 32 cities across the country in opposition to the incumbent dictator. On June 29th the Chun regime responded to the uprisings by presenting a plan of eight items including a constitutional amendment for direct election of the president, freedom of the press and the easing of restrictions on human rights. This opened for the democratic transition of South Korea (see Shin 1999; Kim 2003; Kim 1993). Shin (1999: 3) records that "After seventeen consecutive days of street demonstrations and the firing of 351.200 year-gas canisters during the early month of June, the government agreed to popular demands for democratic reforms". Five years later, on February 23rd 1993, the regime was transformed into a civilian democracy when Kim Young Sam was elected the second presidency of the Republic.

The backdrop of this popular uprising was a growing discontent over many years with the Chun government on issues of political legitimacy and oppression (see Shin 1999). From the mid-1960s the country had gone through rapid industrialization and economic growth (Wang 1994: 143), followed by a massive improvement in access to education, literacy, urbanization and the emergence of a viable middle class who demonstrated a growing discontent with the restrictions of the authoritarian political system (Wang 1994). These processes created a politicized Korean mass public which mobilized against what was seen as an immoral and repressive government, "at a level never before observed" (Kim 1993). When the emerging group of students and intellectuals allied with the middle class in the early 1980s, a lethal threat to the regime was established (Dalton and Cotton 1996: 277).

The democratic transition of South Korea, as presented above, exemplifies and illustrates a widely shared ideal of democratization: As a process enforced through mass uprisings by a citizen in search for responsive government and self-decision. This vision of the rise of democracy has been central to modernization theory as proposed by its theoretical pioneer Seymour Martin Lipset (1959). According to this view transitions to democracy will take place when socio-economic modernization has brought fourth mass commitment to the principles of democracy at a scale when the incumbent, relying on popular legitimacy, can no longer contain a dictatorship. Moreover, democracies can only flourish and sustain in a society where people have internalized certain aspirations: tolerance of dissenting opinions, an appreciation of self-expression, freedom and autonomy, a minimum of trust, a willingness to accept to policy outcomes of a democratic process and channel demands through democratic channels. This idea was summarized by former president of Argentina, Raul Alfonsin, who argued that

> "All democracy needs, aside from its basic institutions, are democratic subjects; men and women who have internalized the values of freedom, solidarity, tolerance, public commitment and justice, and who will not break the rules to gain their ends" (Alfonsin 1992: 4).

In a similar manner Diamond (1994: 21) hypothesizes that "change in the status, strength, or stability of democracy rarely occurs without some visible involvement of a changing – or unchanging – political culture".[1]

Despite a focus on popular aspirations for democratization outside academia and a similar focus in important early contributions (e.g. Lipset 1959), the role of the masses and their aspirations has often gone unrecognized in much of the more recent academic literature on democratization. Researchers have in recent decades, for example, been debating the relative importance of structural factors and the choices of rational agents, or how they interact, in explaining regime changes. An influential strand of literature has held that democracies can emerge and survive in most contexts as long as the elites deliberately set out to initiate a transition and succeed at establishing a sustainable institutional framework through strategic bargaining (see DiPalma 1990; O'Donnell et al. 1986; Rivera 1999; Huntington 1984; Linz and Stepan 1996; Karl and Schmitter 1991).[2]

It is arguably problematic, however, to consider this a sufficient explanation, and we still have to explain why some leaders choose to participate in democratic transitions while others do not, and for this we need to turn to the structures affecting these choices.[3] The choices of autocrats will be made within a certain context, and the agency-centered perspective needs to be supplied with theories taking into consideration the impact of this context. A citizenry in search of more openness, freedom and self-expression *could* be "the missing factor", putting pressure on authoritarian leaders and forcing them to make concessions on the road towards democracy. At the same time it *might* be the factor explaining why some democratic regimes are able to sustain, staying clear of coups or transitions towards authoritarianism. In other words, variations in political culture may be the factor explaining why South Korea has experienced democratization, and consolidated, while regional neighbors such as Singapore

[1] The emphasis on the importance of political culture been strengthened simultaneously with a growing disillusion with policies of democracy-promotion in the non-Western world and the emergence of partly dysfunctional and/or fragile democracies. This has led policy-makers and analysts to conclude that it is utopian to think that effective democratic regimes can be nurtured without a democratic-oriented population (see Zakaria 2003)."Democracy cannot flourish in the absence of a foundation laid by a highly educated population and a "culture of democracy", writes Fareed Zakaria in his analysis of the future of democracy in Iraq in "The Future of Freedom " from 1997.

[2] It is argued that even if sustainable democracies require people to be committed to certain norms, these will emerge when people grow accustomed to a democratic institutional set-up

[3] It has been argued that it verges on tautology to argue that a transition to democracy succeeds because the pro-democratic challengers chose a successful strategy through which they could bring about regime change (see Inglehart and Welzel (2005).

remains autocratic. In this thesis I examine the effect of values on both *the emergence and survival of democracy*.

What I refer to as *values* in this thesis represents what Almond and Verba (1961) referred to as an *evaluational* orientation, including values and judgments which captures the worth or importance a person attaches to something. This should be distinguished from *cognitive* orientations involving knowledge of and beliefs about the political system, and *affective* orientations consisting of emotional feelings regarding political affairs (see also Diamond 1994; Rokeach 1973; Andersen and De Silva 2009). [4]

There are three reasons why I believe the hypothesized relationship between values and democracy deserves more attention. First of all, there is a gap between the popularity of this hypothesis and the prominent standing it had in early theoretical contributions to the field on one hand, and the extent to which it has been analyzed systematically on the other hand. This deficit has partly had to do with the difficulties of accessing comparative data on mass attitudes. However, projects such as the World Values Survey (WVS) have improved our access to data in recent years, although for example the WVS is not measured at an annual basis. In combination with multiple imputation techniques this enables us to study the effect of values using cross-sectional time-series data.

Second, if this theory holds up against the data, it challenges a main assumption of a recent influential strand of literature explaining democracy using models drawn from economic theory (see e.g. Acemoglu and Robinson 2006; Boix and Stokes 2003). One of its important assumptions is that demands for democracy are driven by material interests. As democracy leads to redistribution, the poor in unequal societies will always prefer democracy to autocracy, and under the right socio-economic circumstances the rich will give in. As

[4] In the literature it has sometimes been distinguished between *values* and *attitudes*. Rokeach (1973) argues that attitudes represent a set of aspirations that are focused on a specific object or situation, while values refer to "a desirable end state of existence or a desirable mode of behavior". This implies that values are much more deeply engrained aspirations which people are conceived to have only a few of. This division is however not always easily discernible in practice, and in the political science literature these two notions are commonly used interchangeably (see e.g. Inglehart and Welzel 2005; Almond and Verba 1961). Hence, in this thesis I sometimes refer to values as attitudes (and sometimes simply as the more general notion of aspirations). Political culture meanwhile, can be defined according to Almond and Verba's (1961: 69) pioneer study in the field as "a people's predominant beliefs, attitudes, values, ideals, sentiments, and evaluations about the political system of its country, and the role of the self in that system". Hence, as a wide concept covering all the orientations described above. The values which is proposed to have a positive effect on democracy I refer to as liberal-democratic values or aspirations, although the literature uses many other terms such as "emancipative values" and "self-expression values" or (see Inglehart and Welzel 2005).

opposed to this, theories of political culture argue that democratization happens when people value the ideals of democracy and demand increased freedom and self-decision.

Third, whether the hypotheses is corroborated or disconfirmed has implications for international policy-making. If there is strong evidence that the effect of mass attitudes on political regime type is real, it could be argued that policy-makers should await direct democracy-promotion until the preconditions of democracy are in place. If anything, the democratization efforts should focus on long-term projects such as civil society support or social development projects (see Carothers 2002).

1.2 My contribution

My point of departure is Ronald Inglehart and Christian Welzel's theory of mass attitudes and democracy (2004; 2006; 2007), arguing that both the emergence and survival of democracies can be explained by certain mass attitudes, in particular those which are related to a genuine commitment to freedom and self-decision. Their argument expands on one variant of modernization theory – the proposition that economic development leads to democracy (see e.g. Lipset 1959) – in the sense that they see mass attitudes as an intervening variable connecting economic development to institutions. As such, they argue that change in mass values is the causal mechanism that fills out the "black box" between economic changes and regime changes. In short, their argument is that as individuals in authoritarian regimes experience material security they develop a desire for more self-expression, autonomy and participation. The authoritarian regime will become increasingly more illegitimate in the eyes of the general public, who will eventually force the regime to open up politically. The very same mechanism prevents democratic regimes from backsliding into authoritarian systems, according to the authors.

This work represents arguably the most well-developed theory on the effect of values on democracy, and Inglehart and Welzel have carried out several tests of this theory using data from World Values Survey. Their conclusions have been referred to in the literature as the best answer as of today to the question of whether values influence democracy (see Teorell 2010; Vanhanen 1997). However, their studies have not taken advantage of a number of methodological and theoretical insights from other parts of the democratization literature when testing the proposed relationship. Their tests are primarily cross-sectional analyses

rather than time-series cross-sectional, and their definition and measurement of democracy has been questioned in the literature (see Hadenius and Teorell 2005; Knutsen 2010). Inglehart and Welzel mainly look at the relationship between values and countries' *degree of democracy*. As I will elaborate on below, this is rather imprecise as it does not make it clear whether the outcome is really *transitions* to democracy or *survival* of already democratic regimes.

The aim of my thesis is to build on Inglehart and Welzel's studies in order to *carry out a more refined and critical test of this theory*. My contribution includes methodological, theoretical as well as empirical innovations.

Methodologically, I carry out a time-series cross-sectional analysis in Stata 11.2 covering 97 countries and 28 years, using democracy definitions less prone to criticism raised against Inglehart and Welzel's definition. I move past the relationship between values and level of democracy by analyzing the processes of democratic transitions and democratic survival separately, recognizing that they are not necessarily driven by the same causes (see Przeworski and Limongi 1997). At the same time I run more sophisticated estimation techniques such as fixed effects models which arguably provide more accurate and nuanced inferences regarding this relationship.

Theoretically, I suggest a more refined theoretical framework, drawing on some recent insights from the study of modernization theory. The relationship between economic development and democracy has been much more extensively investigated than the effect of values on democracy, and this literature offers several sophisticated insights regarding the determinants of democracy and in particular the dynamics of institutional change in authoritarian settings (see Kennedy 2010; Acemoglu and Robison 2004; 2006; Przeworski and Limongi 1997; Moral-Benito et al 2011; Bueno de Mesquita et al. 2003). More specifically, I apply two important insights from this field to the study of values and democracy.

First, Daron Acemoglu and his colleagues (see Acemoglu et al 2008; Acemoglu and Robinson 2004; 2006) have argued and shown empirically that the relationship between macro-variables such as economic development on the one hand and regime type on the other hand is

not due to a causal effect from the former to the latter.[5] They argue that both income and democracy may be a result of specific historical characteristics, for example related to each country's particular political-economic development trajectory. In my analysis I apply Acemoglu and Robinson's approach to the theory of Inglehart and Welzel, aiming to better evaluate the strength and nature of the relationship between mass attitudes and democracy through taking into account the possible influence of country-specific factors on both attitudes and regime type.

Second, it has been argued that even if there is a relationship between economic development and democracy, this is not due to a relationship between economic development and the emergence of new democracies (see Przeworski and Limongi 1997) This draws on empirical results indicating that the correlation between growth and democracy is merely due to the fact that growth has a sustaining effect on democratic regimes, preventing them from sliding towards authoritarianism. Literature on the dynamics of authoritarian regimes suggests that the mechanisms tying economic development to democracy are unlikely to appear in an authoritarian climate. It can be argued that Inglehart and Welzel's theory provides a rather simplistic understanding of the requirements of regime change in authoritarian settings, assuming that if liberal-democratic values become widespread enough this will somehow convert into collective change followed by democratization. This is a problematic assumption when considering the body of literature pointing to the difficulties of organizing collective action in authoritarian contexts and how dictators are able to prevent institutional change through manipulation and coercion.

While the first insight is relevant to the study of the effect of values on *level of democracy*, the second is relevant to the study of whether values affect democratic *transitions* or democratic *sustainability*.

Empirically, several novel findings are revealed when applying these methodological and theoretical refinements to the effect of values on democracy. The most striking finding in this thesis is the lack of support to the proposition that liberal-democratic values have a positive effect on democracy. Despite the fact that Inglehart, Welzel and colleagues have presented numerous studies in favor of this proposition (see e.g. Inglehart and Welzel 2005; Inglehart 1997; Welzel and Klingemann 2003; Welzel), I find that it does not hold up to the theoretical

[5] They reach this conclusion when controlling for contextual country-specific variables, a method which will also be applied in this thesis. Hence, Acemoglu et al also provides relevant methodological insights.

and methodological objections presented in this thesis. More specific, there are three interesting empirical patterns in the results. First, the positive significant relationship between liberal-democratic values and democracy level found in previous studies disappears, for example, when controlling for country-specific time-invariant factors. This can be interpreted as indicating that the significant relationship between the two variables found in linear regression is due to omitted variable bias.

Second, there are few indices of a positive effect of liberal-democratic values on neither democratization nor democratic survival. I find absolutely nothing that indicates that liberal-democratic values generate institutional change towards democracy. Regarding democratic survival, I find that values may promote the sustainability of partially free regimes, or more specific the "most democratic" of these so-called hybrid regimes.

Third, the results point in favor of a negative effect of liberal-democratic values on democratization under certain circumstances; more specifically my results indicate that these values have a significant negative impact on change from unfree to partly free regimes, although this result is less robust to alternative model specifications. I suggest that this surprising result may be due to authoritarian leaders carrying out "pre-emptive strikes", in the form of increased use of repression, in response to discontent and demands for freedom, an argument which is shown to have empirical support.

1.3 Structure

In chapter 2 I clarify what I mean by democracy, that is what I am to explain, the explanandum. I make the case that a substantial definition of democracy should be preferred to definitions which equal democracy with certain institutions such as political elections. More specific, I define democracy along the lines of Beetham (1999) as a political system which realizes popular control over decision-making and political equality, and suggest some empirical requirements which must be present for a regime to qualify as a democracy. I argue that the Freedom House index most appropriately captures these requirements.

In chapter 3 I discuss the literature on mass values – that is what I will attempt to explain democracy with, the explanans. I situate theories of mass attitudes in its theoretical context – in between the literature on political culture and structural theories of modernization. In

addition I show how the role of mass values is viewed by a few major alternative perspectives within the democratization literature. This chapter provides the theoretical backdrop for the theoretical arguments in chapter 4 as well as the interpretation of the results in chapter 6.

In chapter 4 I present a theory on the relationship between mass attitudes and democracy. The point of departure is the assumptions and the proposed causal mechanisms of Inglehart and Welzel (2005). I discuss potential weaknesses of this theory and show how it can be built on and challenged using several recent insights from the study of income and democracy. I start by discussing the relationship between values and *level of democracy*, before I move on to distinguish between the *emergence* and *survival* of democracy. The aim of this chapter is to draw a series of falsifiable hypotheses that will be tested in subsequent chapters.

In chapter 5 I discuss research design, including the data structure, estimation techniques and variables. I argue that in particular four methodological challenges may threaten my inferences: omitted variables, heteroskedasticity, autocorrelation and the problem of endogeneity. I seek to mitigate these by choosing appropriate estimation techniques. Moreover, I respond to the problem of missing data by carrying out multiple imputation drawing on King and Honaker (2010). I argue that although imputation attaches some degree of uncertainty to the results, this uncertainty is less grave than the uncertainty stemming from inferences on the relationship between attitudes and democracy solely made on the basis of cross-sectional variation.

In chapter 6 I present my results, starting with the most general proposition that there is a relationship between values and a country's *level of democracy*, arguing that this proposition is challenged by my empirical results. In addition, I dig deeper in to the nature of the relationship between the two variables by presenting results from a dynamic probit model where *transitions towards democracy* are distinguished from the *survival of already democratic regimes*. Finally, I present some evidence in favor of an interaction effect between liberal-democratic values and the degree of repression from the regime.

In chapter 7 I take a second look at the results carrying out a selection of robustness tests where I vary the model specifications in order to find out whether the results found in chapter 6 are influenced by arbitrary properties of the research design or the data. I start by varying the observation sample before applying alternative operationalizations of key variables.

Finally, I investigate the occurrence of dependency between the observations and correlation between the explanatory variables.

Finally, in chapter 8 I round off the discussion by pointing to the essence of the results presented in this thesis and their implications. I discuss possible interpretation of the most striking finding in this thesis: The lack of support for the proposition that liberal-democratic values have a positive effect on democracy. I suggest several explanations for the lack of relationship and point to the need to turn to historical perspectives in future research. Finally, I discuss possible interpretations of the finding that there may be a negative effect of liberal-democratic values on democratization under certain circumstances.

2 Defining democracy

In this chapter I specify the object of study, the explanandum. There is widespread disagreement regarding what democracy really is. Scholars not only disagree on how to measure it and what the best indicators are, they also disagree on how to conceptualize it. In this chapter I present my definition of democracy and show why I find it preferable to other conceptualizations.

2.1 A substantive definition of democracy

Adcock and Collier (2001) see the process of moving from the ideas we are interested in to observable indicators in terms of four levels. At the broadest level is the background concept, which consists of the potentially diverse meanings associated with a given concept, in this case the idea of democracy as it has been conceived in the literature. Next is the systematized concept, the specific formulation of a concept adopted by a particular researcher after reflecting upon the background concept. This should be formulated in terms of an explicit definition as well as the concrete requirements for a country to qualify for this definition. The third level consists of indicators, while at the fourth level there are observable scores.

In this section I present my systematized concept. I follow Knutsen (2011) in his emphasis on the need for a substantial definition of democracy as opposed to a definition in terms of certain institutional requirements (see also e.g. Bollen 1980; Dahl 1998; Beetham 1999; Tilly 2007; Grugel 2002). In order to explain what democracy *is*, it is insufficient to point to a list of institutions, as this is merely a description of what is required for a *democracy to function*. We need to be able to provide an answer to the question of why some institutions are considered democratic and to do this we need a definition of what the *essence of democracy* is, and what *core principles* it aims to realize.

Hence, I define democracy along the lines of Beetham (1992):

"Democracy I take to be a mode of decision-making about collectively binding rules and policies over which the people exercise control, and the most democratic arrangement to be that where all members of the collectivity enjoy effective equal rights to take part in such

decision-making directly – one, that is to say, which realizes to the greatest conceivable degree the principles of popular control and equality in its exercise." (Beetham 1992: 40).

Democracy according to this definition is a political system which seeks to realize both popular control over decision-making and political equality. Moreover, it conceptualizes democracy as lying at one end of a spectrum, with a system where people are totally excluded from decision-making lying at the other end of the spectrum (Beetham 1992). This is in line with Dahl (1971) who described democracy in its ideal form as "polyarchy". In the real world regimes will always fall short of this ideal, but a regime can still be considered democratic if the extent to which the public is able to exercise political control reaches a certain level. In practice the ideal of popular control over decision-making does not require direct democracy in the Greek sense. In large, complex societies it is sufficient that the populace is indirectly in control through the election of their preferred representatives (See Dahl 1971).

Beetham's definition should be distinguished from a minimalist definition equaling democracy with political elections. Following Schumpeter (1976), proponents of this definition argue that by defining democracy according to elections we avoid including elements that are really outcomes of democracy rather than an integral part of the concept. As Cheibub and Vreeland (2012: 2-3) put it: "why some democracies have more political and economic freedom than others is certainly an interesting and important question, but our focus is on questions of regime transition – the miraculous moments when ballots, paper or electronic, truly determine the fate of political leaders – and the tragic moments when they stop." Furthermore, the electoral definition helps us to stay clear of aspects which really reflect the way the *state* is organized and not the *political regime*, such as the bureaucracy and the relationship between the military and the state (see Przeworski et al. 2000; Alvarez et al. 1999; Cheibub et al. 2010). Proponents of electoral definition argue that choice of conceptual definition should be pragmatic, depending on the aim of our empirical investigation, and it is argued that as opposed to broader definitions a minimalist definition is easier to operationalize and easier to measure at the same time as it allows us to study the relationship between democracy and other features related to democracy such as economic performance (see Collier and Levitsky 1997).

Not only does this view not strictly qualify as a definition according to Adcock and Collier's framework (2002) in the sense it that does not specify what democracy in essence *is*. Rather, it specifies the indicators or attributes of democracy, or the empirical requirements to *help*

realize democracy (see Goertz 2005). This corresponds to the next step in Adcock and Collier's framework. Moreover, even if we are to accept a definition of democracy referring to certain institutions, the electoralist view falls short of providing a sufficient account of what is necessary to realize free and fair elections. The "fallacy of electoralism" refers to the failure to realize how political elections per se do not secure democracy (Diamond 1999:9). The literature provides numerous stories of political regimes holding political elections yet without being close to realize popular control over the decision-making process (see e.g. Schedler 2006).

On the other hand, my chosen definition should be distinguished from definitions of democracy which include the outcomes or the explanations of democracy. According to Schumpeter (1976), the "classical view" of democracy was a way of decision-making which would ultimately realize "the common good", and "the general will" of the people. This view is rendered problematic due to the observation that it is inherently problematic to aggregate individual preferences to a collective preference (Arrow 1951). Not only is the outcome of such an aggregation process sensitive to the preferences of dominating individuals. It will also fall short of the fact that individuals have intransitive preferences, implying that it is meaningless to rank all preferences from most desirable to less desirable. The outcome of the aggregation will be determined by the voting procedure and other preference aggregation mechanisms (Shepsle and Bonchek 1997). Furthermore, even if the "common good" was to be identified, it should still be distinguished from my understanding of democracy as the realization of public control over decision-making and political equality. While the "common good" is the *outcome* of political decision-making, democracy is about the *procedures* giving people the opportunity to control politics. Hence, I disagree with proponents of the minimalist definition claiming that a substantial definition will per se fail to exclude elements which represent outcomes of rather than the procedures.

Following this, I exclude from my definition phenomenaes which are really explanations of democracy, or phenomenaes which are often associated with or co-exist with democracy. Characteristics of the society and economy may fall within the latter category. Collier and Adcock (1999) advice scholars to define and operationalize a concept depending in part what they are going to do with it: As my aim is to study the effect of values on democracy I thus want to exclude from the definition aspects of political culture or mass attitudes.

Finally, my chosen democracy definition should be distinguished from political liberalism per se. Zakaria (2003) argues that the western democracies are really built on two distinct ideals: The ideals of democracy and the ideals of liberalism. These practices have emerged side by side throughout history, often accompanying each other. A democratic system cannot function in the absence of liberal elements such as freedom of speech and assembly. At the same time, they are two distinct concepts, resting on different justifications and historical heritage, and in practice there is often a tension between liberal principles and democratic principles. (see Beetham 1992) [6]. My point is that even though some liberal elements are crucial to democracy, in the sense that democracy cannot function without it, the concept of political liberalism should not be conflated with democracy. Thus, liberal elements which do not serve the purpose of facilitating for popular rule over collective decision-making, such as economic freedoms and rules designed to protect the "private sphere" from state influence, should be distinguished from the concept of democracy.

2.2 The requirements of democracy

A clear definition of the core principles of democracy makes it possible to account for the features that are necessary to realize these principles, or what Goertz (2005) calls the supporting dimensions or attributes of a certain definition, that is the characteristics tying a definition to the concrete indicators.

Collier and Levitsky (1997) emphasize that the empirical reality of modern political regimes must be taken into account when specifying the requirements of democracy. The "hybrid" or "inconsistent" nature of many new democracies (see e.g. Diamond 1999) stretches the concept of democracy, requiring us to search for more appropriate and differentiated criterias of democracy: "This mismatch between the case and the formal definition may lead analysts to make explicit one or more criteria that are implicitly understood to be part of the overall meaning" (Collier and Levitsky 1997: 442).

A good starting point for identifying such criteria is Dahl's (1998) argument that democracy requires contestation and participation. *Contestation* requires that political offices are filled through competition. Elections are therefore an important requirement of a substantial

[6] While democracy has its roots in the Greek version of rule by the people, liberalism has its root in the civil rights movement in Britain in the 19th century (Zakaria 2003; fyll inn flere kilder).

democracy definition. In order for elections to actually serve as genuine competition they need be "fair, honest and periodic" (Huntington 1991). The legal barriers to entry into the political arena must be low and candidates must be able to freely campaign and solicit votes. This requires protections such as freedom of speech and freedom of association in political life. Levitsky and Way (2002: 19) argue that the contestation requirement is violated in situations of "an uneven playing field between government and opposition". Extreme cases of such violations are Kazakhstan and Uzbekistan, where opposition parties are routinely banned or disqualified from electoral competition and opposition leaders often jailed. When at the same time there are few protections against vote stealing, opposition parties can never become a threat to incumbents in these countries (Levitsky and Way 2002). But also among countries lying at the other end of, for example, the Freedom House scale the opposition is often restricted in elections. For instance, through coercion, patronage and media control the Mexican ruling party arguably denies the formally legal opposition parties a real chance of competing for power (Diamond 2002). Although elections are held regularly and opposition parties are formally legal, the level of contestation is minimized.

Participation requires that people are guaranteed the right to be included in the political process. In modern representative democracies an important aspect of this is the right to participate in political elections (Dahl 1971). Citizen's ability to participate can be restricted in both formal and informal ways. Historically, formal restrictions based on gender, property or ethnicity have excluded large groups from participating in political life, such as the exclusion of Afro-Americans in the United States during the 19th century and the exclusion of women in Switzerland up until 1971. Today, such easily identifiable and formal exclusion of groups is rarer, although exclusion based on strict citizenship requirements occur in many countries (Dahl 1998). Nevertheless, restrictions on the right to assembly, the freedom of association and the freedom speech occur regularly (see e.g. Freedom House 2010). Today, informal barriers to participation, such as intimidation directed towards supporters of other elite groups, are more common. Although most people would consider India democratic, election-related killings have a long history in some states, where as a result voters are not able to cast their votes in an atmosphere absent of coercion and pressure (Diamond 2002). Not only does this directly limit citizen participation, it may also limit the ability to learn about political life.

In addition, democracy requires a sense of *effectiveness* when it comes to the ability of elected officials of influencing the policy outcomes (Hadenius 1992; Knutsen 2011) This attribute has been referred to as the "agenda-setting power of elected officials" (Munck and Verkuilen 2002: 12). Political offices can be subject to free and fair contestation and participation can be widespread, but the real decision-making either takes place beyond the realm of elected officials or the elected political organs are unable to implement their political program. As a result, the elected officials become essentially toothless. For instance, in Iran both the parliament and the executive are relatively contested and participation is widespread. However, neither the presidential office nor the parliament have the final say in a political system where most important decisions are made behind the scenes within the clergy and in the office of the Supreme Leader. Another threat to the efficiency of elected officials is instances where the state altogether becomes an irrelevant arena for policy-making as has been the case in many African countries. Chabal and Daloz (1999), for example, show how redistribution in several African countries is conducted through informal patron-client networks.

Finally, democracy requires that the elected officials are actually *responsive* to the desires of the public throughout their tenure, what is often referred to as vertical accountability. Even in a system where effective policies are carried out by offices filled through competitive elections with broadly based participation, politicians may not be responsive to the needs of the people (O'Donnell 1994). A viable party system and critical and transparent media are important ways of guaranteeing that the elected officials serve their constituencies. Another way of ensuring regime responsiveness is through "checks and balances", assured through a power balance between different institutions which restricts power abuse from the executive. The latter has commonly been referred to as "horizontal accountability" (see Knutsen 2011), but the aim of such restrictions is to ensure that politicians are truly responsive to the citizens.

I have chosen four main attributes of democracy, but there are many other ways of drawing up the attributes of democracy (see e.g.; Dahl 1998; Knutsen 2011; Munck and Verkuilen 2002). For instance, Knutsen (2011) mentions the rule of law and political and civil rights as additional dimensions. Within my concept structure political and civil rights are seen as

necessary attributes for both contestation and participation.[7] The rule of law meanwhile, is necessary at least in order to ensure effectiveness. Alvarez et. al. (1996) argue that an attribute called "offices" should be added which measures the extent to which offices are filled by means of elections instead of some other procedure. Within my framework this criteria is integrated in the contestation attribute, measuring to what extent political offices actually are open to contestation, and the efficiency attribute, requiring that the elected officials possess the means to implement their political program.

2.3 Democratization and democratic survival

Having provided and specified a substantive definition of democracy and its attributes, I define democratization simply as the process through which countries become more democratic. In the literature it is common to distinguish between the concept of a democratic transition and democratic consolidation (see e.g. Schmitter 1994; Diamond 1999). This distinction is meaningful if we operate with a dichotomous concept of democracy. While transition refers to the phase in which a regime moves from autocracy to democracy, consolidation refers to a process in which a regime which already lies on the democratic side of the cut-off experiences an improvement in democratic quality and effectiveness (see Diamond 1999).

This distinction is less fruitful altogether when operating with a gradual concept of democracy (see Teorell 2010). With a gradual concept democratization equals change towards more democracy regardless of how democratic the regime is prior to this change. That is, if a regime with a high democracy score experiences shifts towards even more democracy this is still democratization according to my definition. I will however, distinguish between transitions towards democracy, or democratization, and the survival of democracy. A democracy survives simply when it does not experience transitions towards authoritarianism, or "de-democratization". In other words, when its democracy score remains at the same level. Survival of democracy must be distinguished from the concept of consolidation of democracy in the sense that it does not require a "deepening" of democratic effectiveness (see Schedler 2001; Gasiorowski 1998).

[7] Without political rights to vote, to run for office and to form political parties the offices will not really be subject to competition. Moreover, with civil rights such as freedom of expression etc people are not able to participate.

2.4 Measuring and operationalizing democracy

In this section I justify the choice of indicators based on the substantial definition and the attributes described above. I start by describing the relevant considerations when choosing democracy indicators, before I assess a selection of relevant indices in light of these considerations. As I am studying the theories of Inglehart and Welzel, I will start by discussing the viability of their proposed democracy index, the effective democracy index (EDI). I will then discuss the commonly used indices Freedom House and Polity, and finally the dichotomous democracy measure of Alvarez et al (1999) from the ACLP dataset. A common conclusion in the discussion on appropriate democracy measures is that all existing indicators have problems of reliability or validity (see Munck and Verkuilen 2002; Knutsen 2011; Cheibub et al. 2010; Coppedge et al. 2012; Hadenius and Teorell 2005), and this is also the conclusion drawn here.

2.4.1 Issues related to choice of indicator

Munck and Verkuilen (2002) present some useful criteria for assessing alternative indices of democracy. Firstly, the indicator needs to appropriately reflect the chosen democracy definition and the relevant attributes. The question is: does the indicator capture the requirements of popular control and political equality? Does it include aspects that are irrelevant for realizing this ideal? Secondly, the indicator should be specific and clear enough to avoid large measurement errors. Important in this regard, it should leave as little room as possible left for subjective choice. Third, its aggregation procedure should be in accordance with the theoretical assumptions about the relation between the different components. Finally, it should offer transparency when it comes to the coding rules and coding process and should provide disaggregated data.

2.4.2 Effective democracy index

Inglehart and Welzel's (2005; 2007; 2002) effective democracy index (EDI) is constructed by multiplying the Freedom House Index (FHI) with a measure of corruption; for example, they have used the Corruption Perception Index (CPI) developed by Transparency International. The resulting index is thought to be a more realistic indicator of how democracy functions in practice, as it aims to measure to what extent the governing elites practice the civil and

political rights. This suggests that the index may be a good operationalization of my substantial democracy definition, which requires attributes describing how democracy actually functions.

I argued above that the choice of indicators and attributes partly should be affected by the relationship I aim to analyze, and I specifically avoided attributes that were thought to be closely related to my independent variable, liberal values. There are many reasons why corruption is likely to be tightly related to the attitudes of both the general public and the elites. A general public holding strong liberal-democratic preferences may restrict the scope of action of political leaders, while officials with a strong ideological commit to the principles of democracy will have a stronger motivation to refrain from corruption. In fact, the correlation coefficient between an index measuring the values I am interesting in and the CPI is 0.79. This suggests that by adding corruption to the democracy index the relationship between values and democracy is in danger of becoming tautological.

Knutsen (2010) provides a thorough discussion of the validity and reliability problems of this index, from which I will only briefly summarize the major findings. An important criticism has to do with the fact that EDI multiplies the FHI with and indicator thought to measure quality, although the FHI index also includes elements tapping quality. This means that the importance of corruption as a quality component may be exaggerated as opposed to the procedural components. As a result, non-corrupt dictatorships can reach a higher score than corrupt democracies (see also Teorell and Hadenius 2005). Moreover, the fact that EDI and CPI are likely to be correlated implies that the reliability problems due to subjective scoring are accelerated. It is also problematic that the only indicator used to measure quality is corruption, a problem that is especially grave when we are analyzing the effect of values, a variable which is highly correlated with corruption. Finally, both the CPI and FHI are variables at the ordinal level and do not provide information about the distance between different values on the scale. As a result, multiplying these measures does not give meaningful results: The EDI fails to offer reliable information about the relative distance between units and the rank of a unit (see Knutsen 2010).

2.4.3 Freedom House Index

The Freedom House Index (FHI) is made up two dimensions: political rights and civil liberties which are combined additively. Together these two dimension are based on 25 main check questions, 10 which measure political rights and 15 which measure civil rights.
The list of political rights includes aspects that are necessary for the conduct of free and fair elections such as the right of opposition parties to participate, the fairness of electoral process and the real power attached to elective organs. The civil liberties dimension captures rights such as freedom for media and organizations, including political parties, the right of assembly and political control over the judiciary (Freedom House 2011). These two dimensions are often combined additively into one index ranging from 1 to 7, with 1 representing least democratic and 7 most democratic. Based on this overall score Freedom House assigns each country a final status in terms of Free (1.0 to 2.5), Partly Free (3.0 to 5.0), or Not Free (5.5 to 7.0).

FHI aims to capture not only formal institutions but also how they function in practice. This is in line with my substantial democracy definition which aims to capture whether public control of decision-making and political equality are realized effectively. The contestation requirement is secured through the political rights dimension, while the civil liberties dimension covers the participation requirement. Questions of whether elected officials actually determine the policies of the government ensure the efficiency requirement, while a question of accountability in between elections covers the responsiveness or the vertical accountability criteria. Moreover, the fact that FHI ranges from 1-7 which implies that it captures the gradual nature of my conceptual definition.

A threat to the validity of FHI is the extent to which it includes elements which are not relevant to my requirements of democracy (see Munck and Verkuilen 2002). For instance, it includes liberties such as free enterprise and property rights – features central to the liberal ideal but not necessary to realize the ideals of democracy. The same thing can be said of components such as self-determination for minority groups and neutrality with regards to different ethnic groups. It can also be questioned how relevant aspects measuring freedom of family relations and freedom of religious faith are to the functioning of democracy as a political system (see Hadenius and Teorell 2005)

Even more problematic is FHI shortcomings when it comes to reliability. It has been pointed out that the aggregation procedure of the different components is problematic: Scores for each component in both the civil rights attribute and the political rights attribute are combined additively. This however is not justified theoretically, and there are many reasons to assume that validity concerns should make us weight some components stronger than other (see Munck and Verkuilen 2002). For instance, Ryan (1994: 10) has pointed out that it seems unfounded to give the issue of decentralization of power the same weight and significance for democracy as the power exercised by the elected officials. This becomes even more problematic as Freedom House does not release data on neither the individual indicators nor the coding rules, thereby preventing replications and attempts to evaluate their reliability (see Munck and Verkuilen 2002) "The level of transparency is inadequate throughout. Outsiders cannot replicate the process", writes Hadenius and Teorell (2005: 17).

Another source if potential bias is that assessing quality aspects such as whether there is open and free private discussion and whether the government is accountable to the electorate between elections will be affected by subjective considerations. This may create reliability problems as we cannot ensure that all coders will always assign the same score to the same country[8]. Meanwhile, the Freedom House team has not utilized multiple coders or conducted tests of intercoder reliability (Munck and Verkuilen 2002). Sometimes the choice of indicator varies between countries in order to adapt the question to the context, but the comparability of the index remains problematic when no effort has been made to assess the equivalence of these indicators (see Munck and Verkuilen 2002).

Yet despite these problems, the Freedom House is used frequently in studies of democratization, and I believe it to be the least problematic candidate for an indicator capturing democracy understood in the way I described it above: As a political system which ensures popular control over decision-making and political equality through contestation, participation, effectiveness and responsiveness. Hence, in this thesis I rund my models using the Freedom House index as dependent variable.

[8] Nevertheless, systematic empirical studies indicate that this is not as problematic as one could assume: The Freedom House index performs relatively well when it comes to the threat of measurement errors (see Knutsen 2011; Bollen 1993).

2.4.4 Polity

Another commonly used democracy index, Polity, consist of two indicators, one measuring the degree of autocracy and one measuring democracy. Usually these are combined into a common graded scale, which ranges from -10 to 10 where 10 is most democratic and -10 most authoritarian. The indicator performs well at capturing various electoral issues, but, I would argue, fails to measure how democracy really functions (see also Teorell 2010; Munck and Verkuilen 2002; Knutsen 2011). Polity mainly relies on observable formal institutions, and with the exception of freedom of organization it ignores civil liberties altogether and pays little attention to participation requirements. As an example, the index rates the United States as fully democratic throughout the twentieth century and much of the nineteenth century. This is a fair conclusion if one disregards the composition of the electorate—from which women and blacks were generally excluded (Paxton 2000). On the other hand, it can be questioned whether elements such as the distribution of power between the executive and parliament is relevant for my definition.

At the same time Polity is usually highly regarded for its methodological qualities as opposed to Freedom House, and especially for its transparency. Its components are displayed in a disaggregated fashion, allowing for replication using other methods of aggregation. It also provides details on how the coding is carried out, which allows researchers to critically assess the reliability of each sub-component. As opposed to the Freedom House index, the five attributes which make up the index are weighted differently, but no theoretical justification is provided for the weighting scheme, implying that the indicator cannot be seen to represent a coherent conceptual structure (Munck and Verkuilen (2002). Yet, its methodological qualities transparency and reliability strengths makes it a useful supplement to FHI, and I robustness tests using the Polity index.

2.4.5 The ACLP-index

The democracy index from the dataset of Alvarez, Cheibub, Limongi and Przeworski (see Alvarez et al. 1999), here referred to as the ACLP-index, is perhaps the most commonly used dichotomous measure of democracy[9]. The index classifies a regime as democracy if it passes

[9] The dataset was updated and extended in 2004 to cover more countries and a longer time period (see Cheibub and Gandhi 2004).

four criterias: The first two criterias examine whether elections are held to the legislature and the executive organs. The third looks at whether elections are competitive in the sense that there is more than one party, and the fourth examines whether these elections actually lead to alternations in office (see Przeworski et al 2000; Alvarez et al 1996). Above I showed how both Freedom House and Polity are criticized for their aggregation procedure. In particular, the Freedom House can be accused of simply combining a long list of components rather than representing a consistent concept structure. The ACLP-index meanwhile, has been acclaimed for its to correspondence between with the concept structure and the composition of the index (see Munck and Verkuilen 2002). It is clearly specified that regimes need to live up to all four criterias in order to qualify as a democracy, and the index appropriately reflects this by classifying regimes lacking at least one of the attributes as a non-democracy (see Cheibub and Gandhi 2010; Przeworski 1999).

The biggest problem with the ACLP-index relevant for this thesis is the validity. I have defined democracy according to a wide selection of attributes which captures how democracy really functions. The ACLP-index, however, exclusively considers elections. Political or civil rights necessary for the holding of free of fair elections are not included, nor any of the other attributes which I have mentioned above. I consider democracy as a gradual concept, which means that the dichotomous nature the ACLP-index is simply not in line with what I aim to measure. The lack of attributes is balanced, however, by the fourth criteria which ultimately measures effective turnover of power. It can be argued that to qualify for this criteria a regime needs to live up to many other components such as a minimum of respect for civil rights. On the other hand, it has been argued that this criteria can provide unfair and non-intuitive scores. For instance, Botswana, which is usually highly regarded for its relatively democratic qualities, qualifies as dictatorship, as the Botswana Democratic Party had yet to lose an election (see Cheibub and Gandhi 2010; Knutsen 2011)

Przeworski et al (2000) argue that the dichotomous nature of the index enhances its reliability. One can also argue that the formal content of the index minimizes the risks of measurement errors. However, it has been pointed out that the reliability of this index is far from stainless (see Elkins 2000). On another note, the methodological aspects of this index is boosted by the fact that the index ensures transparency and allows for replication through clearly stated rules for coding and aggregation while the different components are reported in disaggregated

form. At the same time the dichotomous nature of this index makes it useful for studying transitions from authoritarian to democratic regimes, as the cut-off is clearly justified.

2.5 Summary

In this chapter I have moved from democracy as a general background concept to a systematized concept or definition of democracy, thereafter to the requirements of this definition and finally to the concrete indicators.

I operate with a substantial democracy definition: Democracy is understood as a political system which seeks to realize both popular control over decision-making and political equality. I argue that in order for these objectives to be realized, regimes are required to inhabit four attributes: Contestation, participation, effectiveness and responsiveness.

When it comes to democracy measures, it can be argued that all indicators have problems of validity or reliability. Inglehart and Welzel's effective democracy index includes elements which aims to capture the extent to which democracy actually functions in practice, but suffers from severe reliability and validity problems. The commonly used Freedom House index captures all the attributes listed above, but also suffers from especially reliability problems and methodological problems although these are not as serious as those attached to the EDI. The Polity index meanwhile is more feasible when it comes reliability and replication but does not capture all the attributes listed above. Finally, ACLP-index is methodologically superior to the others mentioned above, but cannot be seen as a valid operationalization of the substantive democracy definition. In sum, I conclude that the Freedom House index is to prefer to other indicators, and hence this will be the dependent variable in my analysis. In addition I will carry out robustness tests using the Polity index.

3 The study of mass attitudes in political science

The theory of Inglehart and Welzel (2005) is both a contribution to the literature on political culture as well as a contribution to the literature on modernization. In this chapter I review these two related fields. I start with a brief review of the literature on the democratic political culture, discussing the most important theoretical contributions to argument that democracy requires a certain political culture and ideological aspirations. Secondly, I briefly review the main contributions to modernization theory, and show how theories of a democratic political culture can be seen as specifying the intervening mechanism tying income to democracy. I round off this chapter by discussing how the role of mass values is viewed by a number of alternative and important perspectives within the democratization literature: The agency perspective, the economic perspective and the historical perspective.[10]

3.1 The democratic political culture

The idea that democratic regimes emerge in societies where citizens share liberal and democratic orientations has deep historical roots. In *Politics* Aristotle (350 BC) argues that democracies emerge in middle class-societies characterized by egalitarian-oriented citizens, while Charles de Montesquieu (1989) argued that the laws by which a society is governed reflect dominant mentality of the general public. Alexis de Tocqueville (1835) meanwhile postulated that the flourishing of democracy in the United States reflected the liberal orientations of the American people, and Max Weber (1930) argued that the protestant tradition of decentralized churches and focus on voluntary engagement brought with it certain attitudes conducive to democratization.

[10] I follow Teorell (2010) who makes a similar distinction. He argues that there are four main approaches to explaining democratization: The structural approach (which both modernization theory and theories of mass attitudes can be seen as a part of), the agency approach, the economic approach and the social forces approach (what I here refer to as the historical approach). These categories are of course not completely mutually exclusive, but serve as a clarification of the most important points of disagreement between theoretical contributions in the literature. For instance, it can be argued that theories of mass attitudes draw on elements of both the structural approach as well as the agency approach.

The idea that a certain culture is more conducive to democracy has been carried on in modern years. Adorno (1950) introduced the concept of an "authoritarian personality", rooted in perceptions of threat which nurtured low self-esteem, misanthropy and dogmatic rigidity. Maslow (1954) speaks of two democratic orientations which made people unlikely to accept authority: an emphasis on self-actualization and individual autonomy, and a humanistic inclination to see others as equals. Lasswell (1951) meanwhile argues that the following orientations towards life and people is fundamental predisposition in favor of democratic orders: inclusiveness, versatility, humanism, self-esteem and freedom anxiety.[11]

Personality traits such as open-mindedness and individuality haveoften been associated with modernity. Inkeles (1969; 1978) argues that socio-economic modernization stimulates the emergence of "individual modernity", characterized by seven concrete orientations: Open-mindedness, secularism, positivist belief in scientific progress, meritocratism, rationalism, emphasis on participation and activism, and finally nationalism. These values are similar in nature to the values usually seen as conducive to democracy, but modernization has not always been associated with democratic values. For instance, it has been argued that totalitarianism is a genuinely modern configuration supported by modern cultural traits (Friedrich and Brzezinski 1965). Eistenstadt (2000) argues that the cultural outcomes of modernization will vary depending on a society's initial cultural characteristics, in other words that there are "multiple modernities".

Nevertheless, in the recent literature it is common to see cultural traits conducive to democracy in association with modernity and modernization. Dahl (1973; 1992) argues that new forms of social interaction and differentiation promotes civic virtues which are conducive to democracy. In Dahl's theoretical framework, the ideal type of democracy, polyarchy, is characterized not only by institutions but also by a climate of participation and competent, educated citizens. Diamond (1999) also emphasizes the importance of cultural traits for especially the consolidation and functioning of democracies. "It is by now a central tenet of empirical democratic theory that stable democracy also requires a *belief in the legitimacy of democracy*, Diamond (1999: 168) argues. Inglehart and Welzel's theory of mass attitudes is also a theory of modernization: They argue that socio-economic development stimulates the emergence of several personality traits which make people prone to revolt against

[11] See also Rokeach (1960) who distinguishes between "open belief systems" and "closed belief systems", and Triandis (1995) who describes the closed versus open dichotomy in terms of "conformism versus individualisme".

authoritarian regimes which again will force democratization. Hence, mass attitudes are seen as the intervening variable tying economic development to democracy.[12]

Empirically, the hypothesized relationship between attitudes and regimes was tested by Gabriel Almond and Sidney Verba (1963) using survey data from five societies. Almond and Verba introduced the concept of "congruence", implying that stable political regimes rest on a complementarity between level of authoritarian characteristics and people's authoritarian aspirations. They argue that stable democracies require a "civic culture", which they describe as "a pluralistic culture based on communication and persuasion, a culture of consensus and diversity, a culture that permitted change but moderated it" (Almond and Verba 1961: 7-8). Another influential empirical study of the importance of political culture is Robert Putnam's (1993) study of democratic performance in Italy, claiming a strong relationship between what he calls social capital and democratic performance. Comparing the well-functioning institutions of North Italy with the less efficient institutions of South Italy he found that much of this difference could be explained by a long tradition of trust, norms regarding reciprocity and social networks in North Italy.

Yet, as Cheibub and Vreeland (2012: 5) note, there are few recent systematic analyses on the effect of mass attitudes and political values, despite the fact that the access to survey data is enormously improved since Almond and Verba carried out their studies. In this regard Inglehart and Welzel's (2005; 2008; 2009; see also Inglehart 2007; Welzel, Inglehart and Klingemann 2003) cross-section studies are relatively rare (for exceptions see Muller and Seligson 1994; Seligson 2002; Hadenius and Teorell 2005; Paxton 2002; Norris 2002) Using data from World Values Survey, covering more than 80 countries, they argue that there is a syndrome of what I from now on refer to as liberal-democratic values[13] – including tolerance, trust, a desire for self-expression, autonomy civic action. They provide empirical evidence indicating that these values are a result of the process of modernization at the same time as they are conducive to the emergence and survival of democracy. Inglehart and Welzel (2004)

[12] Inglehart and Welzel's theory of mass attitudes and democracy builds on studies by Inglehart (1975; 1990) showing how changes from pre-industrialism to industrialism to post-industrialism transforms people's basic attitudes. Studying western industrial societies he argues that people have gone through a generational change from traditional values to and finally to post-materialist values. However, post-materialist values do not necessarily lead to demands for democracy however, and the aspirations which are relevant for this thesis - liberty aspirations – should be distringuished from post-materialist values (see Welzel 2007)

[13] Inglehart and Welzel (2004; 2005; 2006) also refer to the same set of values as emancipative values, self-expression values and sometimes post-material values (although the latter term usually refers to a sub-component of liberal-democratic values). For the sake of clarity I stick to the term "liberal-democratic values" in this thesis.

point out that their studies can be distinguished from earlier studies of political culture in the sense that they are analyzing the effects of values at the aggregate level; that is the effect of mass attitudes on political institutions. Usually this connection is studied at the individual level; that is the effects of certain orientations on individuals' explicit support for democracy.

Theories of political culture have often maintained how traditional values shape the potential for political change. Huntington (1996) for instance emphasizes how cultural traditions are remarkably enduring and how political and economic systems of today are shaped by such values systems. Some has argued that some cultures are less susceptible to liberal-democracy than others, and that hopes for democracy across the global is essentially utopian and ethnocentric (see Parekh 1992). For instance, the prime minister of Singapore Lee Kuan Yew has repeatedly asserted that the traditional "Asian values" are incompatible with the ideals of liberal democracy (see Zakaria 1994). One does not however have to resort to fatalism to acknowledge the importance of political culture. Adherents of modernization theory argue that the comprehensive societal changes associated with the rise of the industrial society bring about coherent cultural shifts away from traditional value systems and towards a culture receptive to liberal democracy (see e.g. Bell 1973; Toffler 1970).

3.2 Modernization theory and mass values

The hypothesis that economic development breeds democracy, commonly referred to as modernization theory, is one of the most studied propositions in the political science literature (see e.g. Lipset 1959; Dahl 1971; Jackman 1973; Arat 1988; Diamond 1992; Burkhart and Lewis-Beck1994; Muller 1995; Londregan and Poole, 1996, Przeworski and Limongi 1997, Przeworski et al 2000; Acemoglu et al 2008; Przeworski 2012). The pioneer of modernization theory, Seymour Martin Lipset, had a much broader explanation in mind than simply an effect of economic growth when he wrote "Some social requisites of democracy" (1959). His concept of modernization included not only economic development but also the wider social changes related to economic growth, such as more education, equality, urbanization, and weakening of traditional ties of loyalty. All these factors were considered conducive to both the emergence and survival of democracies.

Lipset argued that stable, political regimes need to be perceived as legitimate by the people. This happens when the value system of the regime fits with the values of the general public[14]. Lipset noted that modernization, and education in particular, made people more tolerant towards opposition as well as ethnic or racial minorities – attitudes he thought to be conducive to democracy. It was argued that the increased economic security following from economic development led the lower classes to develop long-term perspectives on politics and become prone to extremist views (Lipset 1959: 83). Moreover, it was pointed out that economic development leads to a growing middle class which plays a mitigating role in conflict.

As I have already discussed, the idea that mass attitudes is the intervening variable tying income to democracy is shared by many of the proponents of the democratic political culture theory (see Diamond 1999; Putnam 1994; Huntington 1991). Yet, in the empirical research on modernization theory the role of mass values is rarely elaborated upon. Modern empirical studies of economic development and democracy have mainly looked at the relationship between the two "main" variables. Inglehart and Welzel's cross-section analyses are among the few exceptions, explicitly investigating how mass attitudes play a role as an intervening variable.

More than sixty years after Lipset presented his argument there is extensive agreement that there is a correlation between income level and democracy (Bunce 2000; Geddes 1999; Bollen 1979; Burkhart and Lewis-Beck 1994). Democracy is more likely to exist in richer countries. Geddes (1999: 199) notes that the probability of being a democracy is close to 100 percent for countries above a certain level of income, while the probability of being autocratic is close to 100 percent below a certain income level. For countries with level of incomes in between these two extremities the relationship does not seem to be so clear; countries with a medium income level may alternate between authoritarian and democratic form of government (Bunce 2000). Nevertheless, we are far from knowing why this correlation exists and what the more specific nature of this relationship is (Bunce 2000; Geddes 1999). Is there a causal relationship between the two, and what is the connection?

Lipset's argument that modernization has a causal effect on democracy has been moderated by those arguing that income rather has an effect on the sustainability of already democratic

[14] For instance, he claimed that the failure of the Weimar Republic was due to the fact that its basic values were not in line with those of segments of the army civil service and aristocracy.

regimes (Przeworski and Limongi 1997; Londregan and Poole 1996; Przeworski et al 2000). Przeworski and Limongi (1997) argue that transitions to democracy can emerge for many reasons. Dictators die and emerge as a result of certain conditions and circumstances not necessary economic development. But when democracies occur, they are more likely to survive in a rich country[15]. In other words, wealth may have a stabilizing effect on democratic regimes, suggesting that the detected correlation between income and democracy is due to richer democracies higher probability of surviving. This conclusion has been contested by Boix and Stokes (2003) who analyses a dataset stretching all the way back to 1850, concluding that income increases the probability of transitions, although the effect for the

Acemoglu et al. (2008) argue that the relationship between income and democracy is not due to a causal relationship between the two but rather a spurious relationship. The authors show that the relationship between income and democracy disappears when controlling for county-specific factors which independently affect both. They argue that the historical background of each country such as the institutional structure built at the moment of colonization in former colonies explain why some countries set out on a path characterized by economic development and democracy while others did not. The reason why previous studies have found a significant effect of income on democracy, they argue, is that they have failed to take into account underlying factors which explain both income and democracy. According to Cheibub and Vreeland (2012: 27) this proposition "challenges everything that has been said about the relationship between economic development and democracy by social scientists in the past fifty years". I return to this objection when I derive my hypotheses.

With regards to the causal mechanisms tying income to democracy, Inglehart and Welzel (2006) draw on the heritage of Lipset when they argue that the intervening variable is mass attitudes. At the same time they criticize other tests of modernization theory for failing to pay adequate attention to the causal mechanism tying economic development to institutional change.[16] Yet, mass attitudes is far from the only proposed mechanism that aims to show how higher income is conducive to democracy. It has been argued that economic development affects a society's balance of power in favor of democratic movements by weakening

[15] Przeworksi og Limongi (1997) and Przeworski et al. (2000) distinguish between exogenous explanations of democracy, proposing that democracy arises as a result of exogenous factors, and endogenous explanations, such as theories claiming that economic development breeds democracy. They argue that the latter is false.

[16] Inglehart and Welzel (2005) point out that socioeconomic factors on its own cannot create collective action unless it affects attitudes and values which motivate such actions. A complete explanation of democratization must therefore also include values emerging as a result of socioeconomic development, and which are conducive to democratization.

authoritarian forces such as the landed upper class and strengthening the subordinate classes. The middle class and working class gain capacity for self-organization due to urbanization and new communication technologies, which triggers their capacity to check monopolistic government (Moore 1966; Rueschemeyer et al 1992). Others have argued that the causal mechanism is widespread education (see Barro 1996; Glaeser et al 2004; Acemoglu et al 2004). The proposed effect of education is closely related to that of mass attitudes, and was emphasized by Lipset himself: "Education presumably broadens men's outlooks, enables them to understand the need for norms of tolerance, restrains them from adhering to extremist and monistic doctrines, and increases their capacity to make rational electoral choices" (Lipset 1959: 79). Others again argue that the intervening variable is income equality and capital mobility, both reducing the costs of democracy for the elites (Boix 2003; Acemoglu and Robinson 2006).

Both theories of modernization and theories of political culture are structural theories. According to Teorell (2010:18) such theories "locate the triggers of institutional change in social or economic structure, that is, beyond the immediate reach of human agents". Even though theories of political culture argue that the general public is the driving force of institutional change, the explanatory factor lies in changes in mass aspirations *outside the scope of human intentions*. Structural explanations of democracy have been challenged by explanations emphasizing the role of intentional human agents. I will now show how these perspectives view the role of mass values.

3.3 Alternative theories

3.3.1 The agency perspective

Theories of modernization and political culture as well as structural theories in general have been challenged by the agent perspective, which abandons the search for prerequisites of democratization. In the political science literature, a dichotomy between structural and agency approaches has been widely accepted (see Teorell 2010; Shin 1994; Bunce 2000; Berman 2007; Diamond 1999; Acemoglu and Robinson 2006). Not only do these approaches differ in their view on what factors we should use to explain democracy, they also offer different views on the future prospects of democracy. Sheri Berman (2007) refers to this distinction as a

debate between "preconditionalists" and "universalists". While the first category includes those who see the rise of democracy as a product of certain preconditions and experiences, the other category represents those with a belief that democracy can arise in most contexts. In line with the "universalist" view Bueno de Mesquita (2010: 447) argues that "the structural conditions often identified as root causes of revolution occur far more often than do revolutions themselves". Hence, he suggests that we need to look to the role of agents to explain the variations in democracy.

Agency explanations can be traced back to Dankwart Rustow (1970) who argued that scholars should abandon their search for "functional requisites" as well as the belief that a minimum level of income is necessary. In other words, a shift of focus from "causes" to "causers" (Huntington 1984). As opposed to theories of mass attitudes, agency approaches are mostly elite-centered rather than concerned with ordinary people. The essence is that a transition from dictatorship to democracy depends on the interests and actions of political elites. After a split between "hardliners and "soft-liners" of the incumbent regime, the outcome of the bargaining process between these groups determine the institutional outcome (DiPalma 1990; O'Donnell et al. 1986; Rivera 1999; Huntington 1984; Linz and Stepan; Przeworski; Karl and Schmitter 1991). Democratization then is "a product of strategic interactions and arrangements among political elites, conscious choices among various types of democratic constitutions, and electoral and party systems" (Shin 1994: 139). Other segments of society play at most an "ephemeral role" in this process (O'Donnell et al 1986).

"The agency perspective is often called "the transition paradigm" due the crucial role signed to this phase. As Teorell (2010: 20) puts it: "The process of transition itself determines its outcome". The transition stage of democratization is characterized by uncertainty and risk of reversion, and this is the reason why it is so crucial. This stands in contrast to theories of mass attitudes which are not so concerned with the transition process itself because they see it as heavily influenced by the nature of the structural factors such as the strength of mass aspirations.

Although the transition paradigm does not acknowledge the role of mass values in transitions, it may acknowledge the role of political culture in the consolidation process. "As in the past waves, it appears that democracy can still be created without the demand of the masses, yet cannot be consolidated without their commitment" writes Shin (1994:154) in his analysis on the causes of the "third wave of democratization" (see Huntington 1991). As opposed to

theories of mass values, transition theories assume that such mass commitments are a product of democratic institutions, rather than a cause. Institutional learning theory argues that people learn to value democratic and liberal ideals only by experiencing democratic institutions for many years, an argument directly challenging Inglehart and Welzel's thesis and which I return to in the next chapter (see Rustow 1970; Muller and Seligson 1994; Hadenius and Teorell 2005; Lindberg 2006).

From the point of view of structural theories, it can be argued that the transition paradigm is insufficient at explaining why some countries democratize while others do not. The choices of leaders are not made in a vacuum. Inherent in a program of political liberalization there is a minimum of political risk for the incumbent regime, and a chance that it may lead to a "snowballing of democratic demands" (Robinson 1998: 390). "Autocrats do not willingly commit political suicide", as Brumberg and Diamond (2003) put it. His choice will be made within a certain context, and the agency-centered perspective needs to be supplied with theories taking into consideration the impact of this context. For instance, several studies have shown that the actions of political leaders were heavily influenced by the behavior of the masses (Bunce 2000; Fishman 1990). Some have argued that it verges on tautology to argue that a transition to democracy succeeds because the pro-democratic challengers chose a successful strategy through which they could bring about regime change (Inglehart and Welzel 2005).

3.3.2 The economic perspective

Second, classical structural perspectives have been challenged by the latest approach to democratization using tools and assumptions from economics. Scholars within this approach share an assumption that redistributive conflict lies at the heart of political change (Boix 2003; Acemoglu and Robinson 2006: Rosendorff 2001). They share many similarities with the agent-centered literature in so far as their emphasis is on transitions and the trade-offs facing different actors with different interests. As opposed to theories of mass values, agents are merely motivated by material interests rather than value priorities. Charles Boix (2003), for instance, assumes that agents are only motivated by the desire to maximize income. The poor will generally prefer democracy as this is likely to lead to redistribution, while the rich prefer right- wing autocracy. In other words, the general public's preference for democracy is constant across societies and therefore cannot explain variations in political institutions. The

fundamental struggle over democracy occurs between the rich and the poor. The balance of power between these two groups as well as the desirability of different regime types will determine the institutional outcome.

At the same time, this perspective shares with structural theories an attention to the economic and social factors which shape actors interest and decision. The model of Boix (2003) assumes that income equality and capital mobility affect the power struggle over resources, by reducing the cost of democracy to the rich. They also share with theories of mass aspirations an assumption that the preferences of the entire population matter for regime outcomes, not only those of the elites. Yet again, these preferences are only material. Przeworski, Cheibub and Limongi (2003: 181) explicitly deny the importance of cultural traits, stating that "We think that economic and institutional factors are sufficient to generate a convincing explanation of the dynamic of democracies without any recourse to culture".

The model of Acemoglu and Robinson (2006) share many of the same assumptions regarding the preferences of the rich and the poor, and argue that the concession by the rich to agree to democratize should be seen as a credible commitment to a moderate redistribution in order to avoid revolution and radical redistribution. Conflicts regarding political institutions are instrumental, meaning that when people try to change institutions they are aiming to influence the resource distribution. If the population is not content with the way the regime allocates resources, they will demand more democracy. At the same time, when inequality is sufficiently high the costs in terms of future redistribution is too high for the elite, making democracy non-viable. If the social unrest reaches a sufficient level and the costs of democracy are still acceptable to the elites, democratization may happen (see Acemoglu and Robinson 2006). This framework leaves no room for ideological mass preferences in explaining democracy. The concept of a democratic culture may as well be a product of democratic institutions as a cause.

3.3.3 The historical perspective

Finally, structural theories have been challenged by those arguing that in order to understand how stable, well-functioning democracies emerge, we need to analyze their historical trajectories (Berman 2007; Zakaria 2003; Luebbert 1987). This perspective criticizes structural theories for failing to take into account the complexity and the configurations of

causes which explains regime outcomes. At the same time, it challenges the transition paradigm's belief in quick and easy democratization.[17] Studies within this approach have pointed out how the liberal democracies in Western Europe emerged through a gradual, complex and long-lasting trajectory. For instance, from the signing of Magna Carta in 1215 enshrining a few individual rights as protection against oppression from the King, it would take centuries and many struggles until women got the right to vote in the UK (Zakaria 2003).

This belongs to the theoretical heritage of Barrington Moore (1966) and Stein Rokkan (1987) among others, using the tools of historical sociology to detect the configurations of events that have led to democratic regimes. It shares with structural perspectives the idea that there is a link between initial socioeconomic conditions and subsequent levels of democracy. At the same time, it is closer to agency and economic theories in its understanding of regime change as driven by class-based collective actors, motivated by material interests rather than value priorities. Democracy is reached through a power struggle among social forces with competing economic interests (Moore 1966; Rueschemeyer 1992). According to Moore, for instance, democracy emerged when the agriculture was no longer characterized by feudal labor relations and where the bourgeoisie was strong.

3.4 Summary

The theories of democratization discussed in this chapter make up the theoretical backdrop of this thesis.

In this chapter I have placed Inglehart and Welzel's theory of democratization in its theoretical context, showing how it rests on a strong historical tradition of theories of the cultural traits of democracy. Drawing on the heritage of Weber and Tocqueville among others, it has been argued that certain personality traits such as open-mindedness and tolerance are conducive to democracy. At the same time it can be seen as a part of modernization theory, in the sense that liberal-oriented citizens can be seen as the causal

[17] Berman (2007: 30-31) adheres this perspective when she argues that "The main lessons history teaches, in fact, are ones that do not mesh easily with either the simple universalist or simple preconditionalist perspective: All sort of countries can indeed undergo successful democratic development, it turns out, but the process is usually long and painful for even the most fortunately positioned of them".

mechanism tying socio-economic modernization to democracy. In the next chapter I discuss Inglehart and Welzel's theory in more detail and deduce a number of hypotheses from a refined version of it, drawing on elements from other perspectives within the democratization literature.

I have presented some alternative theoretical contributions to democratization and the role they assign to mass attitudes. The historical perspective will be built upon as a theoretical objection to the hypothesis that liberal-democratic values explain level of democracy. The agency perspective I return to as an objection and theoretical corrective to the proposition that liberal-democratic values will convert into democratic change. Both perspectives will reappear in the concluding discussion, as possible explanations for why I mainly do not find a relationship between liberal-democratic values and democracy. The economic perspective meanwhile is returned to when discussing choice of control variables and in the concluding discussion as an approach which may be able to bring together important insights from agency theories and historical theories.

4 Theory and hypotheses

The theoretical framework which I investigate in this thesis has Inglehart and Welzel's theory (2005) as departure.[18]. As I have shown in section 3 this theory draws on both the political culture literature as well as the literature on modernization. Yet, it has been less subject to theoretical and methodological revisions than modernization theory. In this chapter I discuss the major assumptions of Inglehart and Welzel in more detail.

At the same time I apply arguments from other areas of the democratization literature to the study of the role of mass attitudes in democratization. Some of these are mainly methodological insights, in so far as they suggest potential sources of bias which may affect the inferences we make regarding the relationship between liberal-democratic values and democracy. Others are mainly theoretical, in so far as they suggest several theoretical weaknesses of Inglehart and Welzel's argument. In particular, the literature suggests many possible reasons for why there is no easy and straight-forward link between mass attitudes and political institutions in authoritarian settings.

Inglehart and Welzel's theory as it is presented in "Modernization, cultural change and democracy" (2005) can be understood in terms of two causal links. The first link connects economic development to the emergence of liberal-democratic values. The second shows how these values are linked to democracy. In this thesis I do not attempt to test the first link which is outside the scope of my research question, but because it provides the theoretical backdrop of the relationship between values and democracy I briefly discuss it below[19]. The second link is the primary concern of my analysis, and I return to it in the next section.

4.1 Modernization and liberal-democratic values

A central premise in the work of Inglehart and Welzel is the idea that the variation in people's aspirations for freedom reflects socio-economic configurations, an assumption which has been extensively tested (see e.g. Inglehart 1977; Inglehart 1990). The theoretical

[18] Their argument has been presented and elaborated upon in Inglehart 1997, Inglehart and Welzel (2003), Inglehart (2003), Welzel and Klingemann (2003), Welzel (2006), Welzel and Inglehart (2006). The causal mechanisms tying values to democracy have been elaborated upon in Welzel (2007) and Welzel and Klingemann (2008)

[19] This thesis is primarily a contribution to the study democratization rather than the study of mass attitudes.

framework is true to Lipset's conception of modernization in so far as it sees modernization in terms of a set of broad societal changes following from and associated with the emergence of a modern economy. The idea is that these developments fundamentally alter people's lives and therefore their world views. In particular, it leads to increased emphasis on freedom, individuality and self-decision. Changes in people's material situation as a result of economic development stimulates aspirations for other forms of satisfaction than material security. These changes do not happen overnight however, as an individual has to be socialized into a material secure environment to develop a liberal mind-set. People's basic values reflect the conditions that prevailed during the formative years, impying that these values change mainly through intergenerational population replacement (see Inglehart 1990).

This argument borrows insight from psychological research showing that people adapt their aspirations to the physical limitations they are faced with. The more resources a person owns, the more freedom he will need to make use of these resources (Rostow 1961). An individual living in a scarce economic situation will first of all aspire to satisfy his basic economic needs, while an individual whose economic needs are satisfied will strive for increased self-realization and autonomy (Schwartz 1992; Maslow 1988). Likewise, people will face cognitive limitations. If these limitations are reduced as a result of education, an individual will strengthen his liberal-democratic aspirations and demands for "institutional freedoms" (Inglehart 2003; 1999).

Moreover, modernization includes not only economic development and education, but also "the occupational diversification, social complexity, and knowledge-intensity that characterize the creative economies of postindustrial societies" (Inglehart and Welzel 2004). As a result, people are increasingly exposed to forms of work and human interaction which enhances a feeling of individuality. Without this structural change liberal-democratic values will fail to materialize. A number of societies have experienced economic development and increased access to education without substantial changes in working conditions, such as societies relying on natural resources. The access to vast natural resources have made it unnecessary to invest in human capital, instead the government feeds on the revenues from oil exports (Inglehart and Welzel 2005; Barro 1997; Ross 2001). Theoretically, these societies will not experience a flourishing of liberal-democratic values.

Inglehart and Welzel (2005) distinguish between the cultural consequences of the rise of the industrial society and the consequences of post-industrialism. The former leads to the

emergence of so-called secular-rational values which deviate from traditional, religious mentalities but which do not stimulate aspirations for democracy and freedom. The emergence of post-industrialism, meanwhile, leads to an emphasis on autonomy, freedom and diversity . The values emerging from post-industrialism as described in Inglehart and Welzel (2005) are close to the syndrome of post-material values which Inglehart has elaborated upon in numerous studies (see e.g. Inglehart 1977), but the authors make it clear that liberal-democratic values (or what they refer to as self-expression values) encompass a number of issues that go well beyond the items tapped by post-materialist values.[20]

In sum, modernization makes people more existentially secure, more open and autonomous intellectually, and more independent socially. The outcome is an ecological syndrome of values which can be grouped under the heading liberal-democratic values. Inglehart and Welzel assume that a number of orientations such as human autonomy, participation, tolerance, trust and self-expression tap the same underlying value dimension ranging from survival to liberal-democratic orientations. Individuals emphasizing survival values tend to give top priority to economic and physical security, as opposed to those emphasizing liberal-democratic values including freedom of expression, participation in decision-making, political activism, environmental protection, gender equality and growing tolerance of ethnic minorities, foreigners, gays and lesbians (Inglehart and Welzel 2005; 2008; 2009). In other words, they inhabit "a sense of autonomy that leads them to question authority, dogmatism and hierarchies, whether religious or secular" (Inglehart and Welzel 2005: 29).

This set of values resemble what the literature on attitudes has referred to as "democratic", "open" and "self-actualizing" orientations (Maslow 1988; Lasswell 1951; Adorno 1950). Moreover, they resemble Diamond's (1999: 28) concept of a democratic culture of "flexibility, trust, efficacy, openness to new ideas and experiences, tolerance of differences and ambiguities, acceptance of others, and attitude toward authority that is neither "blindly submissive" nor "hostilely rejecting" but rather "responsible…even though always watchful".

[20] Inglehart's post-materialism dimension has been critized in the literature, for instance by those arguing that it really combines two distinct value dimensions (see e.g. Flanagan 1982; Knutsen 1990). Others again have found that many of these dimensions suggested in the literature seem to tap the same underlying cultural space of different value orientation (see e.g. Hellevik 1993).

In other words, a genuine commitments to the intrinsic values of democracy, rather than a lip-support for democracy.

Using data from World Values Survey (WVS), Inglehart and Welzel (2005) argue that there are enduring cross-national differences when it comes to this value dimension. Some societies have populations with liberal-democratic values, while in other societies survival values dominate. This argument implies that the majority of ordinary people do not always prefer democracy to autocracy, in contrast to Acemoglu and Robinson's (2006) assumption that the poor will always prefer democracy as this leads to redistribution. In other words, autocracies do not necessary need to be illegitimate as far as the general public is concerned, and democracies are not always legitimate. Moreover, it is assumed that this value syndrome varies consistently between populations. This means that a population which scores high on of these attitudes scoring correspondingly high on the others as well (Welzel and Inglehart 2007).

Liberal-democratic oriented citizens living in an authoritarian system will demand democracy and increased freedom, which brings me over to the second link of Inglehart and Welzel's theory. I start by looking at the general proposition that mass values affect *level of democracy*. I will then look at whether this connection is due to a relationship between values and *transitions* from authoritarian to democratic regimes, or a relationship between values and the *survival* of democratic regimes.

4.2 Mass attitudes and level of democracy

I start off by considering the most general implications of Inglehart and Welzel's (2005) theory, the claim that a country's level of democracy depends on the aspirations of its citizens. Their argument is in line with a common assumption that political institutions are a product of the balance of power between different forces in society (Moore 1966; Acemoglu and Robinson 2006; Boix 2003). However, their theory must be distinguished from most other perspectives in two important ways. First, it assumes that mass support is crucial to this power balance (Inglehart and Welzel 2007), as opposed to theories which tend to disregard the role of the masses (see e.g. O'Donnell et al 1986). Second, it assumes that mass support is driven by ideological preferences, as opposed to theories which see mass support for

democracy as given and in instrumental terms as a way of influencing the distribution of resources (see e.g. Boix 2003; Acemoglu and Robinson 2006).

Value-centered theories assume that the increasing emphasis on freedom and self-expression which people develop as a result of modernization has a causal effect on the institutional set-up. When people learn to appreciate freedoms and self-expression they will increasingly be at odds with a system that does not accommodate for these desires. Drawing on the legitimacy framework formulated by Eckstein and Gurr (1975) this leads to a situation where the regime loses legitimacy. As the regime rests on mass support, this will change the power balance in society, making the regime unlikely to function effectively. In other words, regimes must offer democracy at a level which satisfies peoples demand for democracy. The basic idea is that if people's aspirations for democracy exceed the supply of democracy, the regime needs to adapt (Welzel and Klingemann 2008).

The link between values and institutions is conceptualized as a "supply-demand relation with regard to democratic freedoms" (Inglehart and Welzel 2005: 196-91). The institutionalization constitutes the supply of democratic freedoms while the demand is to be found in mass preferences for freedoms and self-decision. Inherent in this supply-demand relation is a tendency towards congruence, as the institutional supply of freedoms will be under constant pressures to satisfy the mass demand for freedoms.

For Inglehart and Welzel's hypothesis to be seen as valid, emancipative values need to emerge prior to the emergence of democracy, rather than the other way around. Institutional learning theory meanwhile argues that people learn to value freedom and self-expression by living under democratic institutions for many years (see e.g. Rostow 1960; Muller and Seligson 1994). Basically, when people get accustomed to channeling demands and opinions through the democratic channels they become more tolerant, trusting and liberal (see Lindberg 2006). These values are seen as a result of democratic institutions, rather than a cause. Hence, according to institutional learning theory, emancipative values are "endogenous" to democratic institutions (see also Przeworski and Limongi 1997). Inglehart and Welzel's theory challenges institutional learning theory, claiming that emancipative values are "exogenous" to democratic institutions.

It follow from Inglehart and Welzel's argument that regime legitimacy depends more on the population's value priorities than on the economic performance of the regime. Alternatively, a

regime will remain legitimate in the eyes of ordinary people as long as it provides economic security, social benefits and employment. That is, high economic performance combined with resource distribution will sustain any regime. Inglehart and Welzel's theory defies this. When people experience material security they will develop emancipative values, and as a result they will value civic freedoms increasingly above material needs. In other words, a catch-22 situation for an autocratic regime hoping to quell social unrest with economic bribes.

This logic suggests that in a society where the masses hold aspirations for freedom the regime is likely to be democratic. This gives us the following hypothesis:

Hypothesis 1: Liberal-democratic values increase the probability of a high level of democracy

Among recent literature this hypothesis can be challenged based on the approach of Acemoglu et al. (2008), who deny that democratization requires economic development nor a "culture of democracy". In a thorough study of the relationship between economic development and democracy, they argue that the correlation between the two is not due to a causal effect from the former to the latter, but rather that both are independently affected by one or more variables not included in the model (Acemoglu et al 2008). In order words, the relationship is spurious. They reach this conclusion by controlling for any of a possibly large number of country's attributes that are fixed over time but vary between countries. This can be attributes such as date of independence, population characteristics, geographic features, borders and power relations at the time of state formation (see Acemoglu and Robinson 2000; Acemoglu et al 2001). When controlling for such contextual factors the relationship between economic development and democracy disappears. This implies that economic development causes neither the emergence nor the survival of democracy.

Acemoglu et al (2008) argue that this result is consistent with the hypothesis that both variables are a result of complex historical trajectories specific to each country. The implications of events that took place in a country's distant past, so-called "critical junctures" are still shaping economic and political life. As postulated in the critical juncture theory crucial events can create a divergence when it comes to political and economic change, and these differences may persist over time (see Collier and Collier 1991; Skocpol 1979). Some societies may embark on a path where by democratic institutions and economic success emerged side by side. Conversely, tendencies such as authoritarian institutions and failure may develop as part of another path. There is a natural complementarity between political and

economic institutions, as the long run political and economic development paths of societies are intimately linked.

Studying former European colonies Acemoglu et al argue that the institutional structures built at the moment of colonization, the "critical junctures" in these countries, created divergent development paths. More specific, factors such as settler mortality rates at the time of colonization, the indigenous population density in 1500 and the date of independence determined the strength of civil society and the early institutional set-ups. Strong civil societies and early constraints on the executive branch of government contributed to both economic prosperity and democratization (Acemoglu and Robinson 2000; Acemoglu et al 2001; Acemoglu and Robinson 2006).

The same hypothesis can be applied to the relationship between mass values and democracy. It is possible to hypothesize that both values and political institutions can be explained by underlying country-specific factors: Some societies embarked on a path where people gradually acquired liberal-democratic values and the political institutions became transparent and accountable. Other societies embarked on a path of repressive forms of government and citizens valuing authority and tradition. It is not implausible to assume that historical country-specific variables such as religious tradition have had a crucial impact on both people's intrinsic ideals and the accountability and transparency of government. If this is the case, the relationship between liberal-democratic values and democracy disappears when controlling for country-specific time-invariant effects. Perhaps we need to look to history to explain the present level of both.

Testing Acemoglu and Robinson's (2006) rigorous alternative model for explaining regime outcome falls outside the scope of my research question. Rather, I will apply their objections to modernization theory to the study of mass attitudes and democracy.[21] Controlling for country-specific factors gives a more critical test of the theory. Thus, if the theory of mass aspirations passes this test its plausibility is strengthened.[22]

Hypothesis 2: The relationship between mass attitudes and democracy still exists when controlling for variables which vary between countries but not over time.

[21] Acemoglu og Robinson (2007) indicates that there is no causal effect of values on democracy, but they have not carried out a systematic analysis to support this.

[22] As will be discussed in my methodological section, it is easier to fail this test than pass it, as fixed effects removes a lot of varation. However, its plausibility is strengthened if it passes the test.

The general proposition that there is a connection between mass attitudes and democracy says very little about the nature of this relationship and what the causal mechanisms are. Again drawing on the literature on modernization theory, it could be that this relationship is not due to a causal link between attitudes and transitions to democracy, but merely a causal link between attitudes and survival of already democratic regimes. These two processes are different in nature, and may be a result of different explanatory factors (see Przeworski and Limongi 1997). I will look at these two outcomes separately.

4.3 Democratic transitions and survival

4.3.1 Democratic transitions

Inglehart and Welzel's argument implies that the relationship they find between mass attitudes and democracy is not only due to the effect of attitudes on democratic survival: They argue that attitudes also affect democratic transitions, through the causal mechanism of collective action motivated by liberty aspirations (see Inglehart and Welzel 2005; Inglehart et al 2003; Inglehart and Welzel 2008; Welzel 2007; Welzel and Klingemann 2008).

Implicit in Inglehart and Welzel's argument is the assumption that there are two key groups in an authoritarian society: The political elite and the general public. When liberal-democratic values emerge and become widespread this will motivate the masses to act collectively to push for democratization. At the same time, the political elite may also aquire liberal-democratic values as a result of modernization, making it more likely to allow and initiate democratic change. Yet, Inglehart and Welzel's main argument only requires liberal aspirations at the mass level: It assumes that in the presence of mass pressure for democratization, institutional change will take place even if the elite is not liberal-minded. Individuals who value freedom and self-decision will participate in social movements and campaigns which put pressure on elites to respond to these demands (Inglehart and Welzel 2005).

Moreover, this theory of transitions implicitly assumes that collective action motivated by a desire for more freedom will have higher probability of success at bringing about regime change towards democracy than other types of collective action (see Welzel 2007; Welzel and Klingemann 2008, Inglehart and Deutsch 2005). The reason is that both participants and

leaders of democratic movements who are motivated by genuine preferences for freedom will be more dedicated than those motivated by instrumental reasons. This builds on studies showing that people who have deeply internalized ideals such as freedom will gain "expressive utility" from taking action based on this ideal – irrespective of the success of this action (Kuran 1991). Their demands will not be quelled by economic bribes and benefits granted by authoritarian leaders, nor can it be held down in the long run by repression (Inglehart and Welzel 2008: 134). It is argued that under pressure from forces seeking to institutionalize autonomy and self-expression an authoritarian regime is unlikely to function effectively in the long run. As people increasingly place emphasis on liberal-democratic values, the regime faces growing "suppression costs" which leads to intra-elite tensions and the growth of dissident groups and anti-regime movements (see Welzel 1999: 105-13). When the regime can no longer bear the "suppression costs" institutional change will materialize, according to this theory. This gives the following hypothesis:

Hypothesis 3: Liberal-democratic values increase the probability of transitions from authoritarian to democratic regimes

However, drawing on the literature on the relationship between economic development and democracy, there are many reasons why can imagine that this relationship is not so straight-forward. Inglehart and Welzel can be accused of presenting a rather simplistic understanding of regime change where liberal-democratic preferences are converted into institutional change. These mechanisms may be prevented from happening in autocratic regimes. Liberal-democratic values may not translate so easily into collective action which again brings about democratization. The literature on mass opposition and regime change often assumes that institutional change requires both motivation and opportunity (see e.g. Bueno de Mesquita 2003). Motivation is secured by the emergence of liberal-democratic values but people also need the opportunity to raise their demands and organize collective action.

This draws on Przeworski and Limongi (1997)'s influential argument that modernization merely brings about survival of already democracy regimes, rather than transitions to democracy from authoritarian regimes. The same objection may be relevant to the study of mass attitudes and institutions. This requires that there is something about authoritarian or semi-authoritarian regimes which blocks the proposed mechanisms tying mass values to democratization. Either the self-expression values of the masses is prevented from translating

into collective action, or this collective action is prevented from bringing about institutional change.

An extensive body of literature on the dynamic of authoritarian regimes suggests that this is the case (see e.g. Bueno de Mesquita 2003; Schedler 2002; Kuran 1991; Francisco 2005; Brownlee 2009; Brooker 2007). Studies show how authoritarian regimes are growing in sophistication, becoming increasingly better at undermining potential sources of opposition. Bueno de Mesquita and Smith (2010) argue that citizens look at two factors when calculating the risk of participating in collective action against the incumbent: The chances of success at bringing about change, and the likely benefits of such change relative to their present situation. The authors argue that leaders have two mechanisms with which they can dissuade the citizenry from joining mass political movements and rebelling. Firstly they can increase the provision of public goods, thereby improving the welfare of the citizens and diminishing their desire for revolutionary change. This has been done in oil-rich countries such as Qatar and economically development countries such as Singapore.

However, economic patronage is a strategy which requires extensive resources to an extent which it is not a viable strategy for most countries. Alternatively, leaders can suppress the provision of public goods, particularly such goods as a free press, transparency, and communication technology which helps people coordinate and organize. These latter forms of public goods are often referred to as "coordination goods" (see Bueno de Mesquita and Downs 2006). Restricting these goods limits the opposition's ability to coordinate activities of opposition – so-called "strategic coordination" (Bueno de Mesquita 2009). For instance, Iran has gone as far as periodically closing down internet access and the phone network during times of political unrest.

This restricts the practical ability of regime opponents to organize activities such demonstrations, petitions and strikes. Moreover, it limits the opposition's ability to broadcast their message and recruit new potential members to the movement. In addition, Kuran (1991) argues that when the mass media is monopolized by the government it becomes difficult for potential opposition members to evaluate the strength of the movement. The regime will aim to block the production and dissemination of information potentially harmful to their own survival, portraying the size of the opposition as minimal. This will distort the informational basis of the masses. Potential members of the opposition will view the risk of participating in activities as higher than it is in reality (see Kuran 1991). Through these mechanisms, regimes

may endure even though there is a gap between the regime's supply of freedoms and people's demand (Kuran 1991). Bueno de Mesquita (2005: 80) argues that many adherents to modernization theory tend to "overlook the fact that autocratic states are not passive observers of political change; in fact, they set the rules of the game and rig them to suit their interests".

Leaving the actions of dictators aside, another challenge to the viability of a liberal-democratic opposition movement is suggested by the literature pointing to the inherent difficulty of organizing collective action in authoritarian societies (see Kuran 1991). Insights from rational-choice suggests that an individual opposed to in the incumbent regime is unlikely to participate in mass opposition if the personal risk of joining in collective action could outweigh the personal benefit of a successful regime change. (Kuran 1991: 14) writes that "It is generally in a person's self-interest to let others make the sacrifices required to secure the regime's downfall, for a revolution constitutes a "collective good" – a good he can enjoy whether or not he has contributed to its realization". As a result, an upheaval may fail to materialize even if the number of people holding liberal-democratic aspirations and desiring more freedom constitute a substantial majority. The potential revolutionary is "paralyzed by the realization of his powerlessness" (Kuran 1991: 24). This implies that mass discontent does not necessarily generate a popular uprising against the political status quo.

These arguments challenge the democratic political culture thesis, which seems to assume that if intrinsic democratic preferences become widespread enough, they will translate into political action even in the presence of the discouraging effect of repression (Welzel and Klingemann 2008: 61-63). The essence is that the success of attempts at repression or discouraging collective action depends on the size of the mass opposition itself, which determines the costs of any repression. Although Kuran (1991) emphasizes how individuals due to communication problems very often overestimate the cost of repression, there is some common ground between his theory and that of Inglehart and Welzel. Kuran argues that despite the problems of collective powerlessness, a mobilization process may be sparked off due to individuals' need to be true to themselves. A person who is opposed to the regime but chooses to accept it quietly faces an internal cost. If the discontent with the regimes becomes intense, the cost of dissent may be outweighed by the satisfaction from being true to himself. This explains why a person may choose to voice a demand for change even when the price of dissent is very high and the chances of a successful uprising very low. "Because of the high

value they attach to self-expression, they are relatively unsusceptible to social pressures" writes Kuran (1991: 19).

I deduce two hypothesis from these objections.

Hypothesis 4a: Repression reduces the effect of mass attitudes on democratization

Hypothesis 4b: Lack of freedom of expression reduces the effect of mass attitudes on democratization

Alternatively, it could be that mass values have an effect but in a more complex manner than suggested by Inglehart and Welzel. In a study of modernization theory Kennedy (2010) proposes that the effect of income on democratization works in two contradictory ways. It has a stabilizing effect on all regimes – in rich societies the state has sufficient resources to support an extensive repression apparatus. Moreover, in rich societies the governing coalition is often large which means that a large portion of the population is invested in the current institutions (Kennedy 2010; Fearon and Laitin 2003). This means that the absolute number of transitions to democracy is not necessarily going to be much higher in rich countries than in poor.

At the same time, when a transition actually occurs at higher level of development, it is likely to result in democracy. Kennedy suggests that this is due to the population's greater concern for freedom and self-expression, but he does not go on to test this. As the democratizing effect of economic development is conditioned on a regime change taking place, Kennedy calls this the conditional probability model. Applying this model to the effect of mass attitudes it can be argued that because aspirations for freedom and self-decision are associated with income level, the countries with widespread liberal values are likely to be high income-societies and therefore less prone to regime change. Yet, when a transition actually occurs this is likely to be democratic in countries where the masses demand freedom.

4.3.2 Democratic survival

It is less controversial to show that there is a relationship between mass values and democratic survival than showing a relationship between attitudes and transitions. Even if mass attitudes do not bring about transitions from authoritarian to democratic regimes, it is possible that mass attitudes sustain existing democratic regimes. In other words, it seems plausible that even if Inglehart and Welzel's proposed causal mechanism tying values to democracy through collective action does not take place in authoritarian regimes, it will take place in democracies. "Indeed, a vibrant civil society is probably more essential for consolidating and maintaining democracy than for initiating it", writes Diamond (1994: 7).

As argued above, income level may have a stabilizing effect on all regimes by preventing collective action and social unrest. Value-centered theories meanwhile, assume that mass attitudes have a stabilizing effect on democracy independently of the effect of income. This builds on the literature emphasizing the importance of a vivid civil society to the survival and consolidation of democracy (e.g. Diamond 1994; Diamond 1999). It has been suggested that a liberal-oriented civil society is likely to serve as a "vital instrument for containing the power of democratic governments, checking their potential abuses and violations of the law, and subjecting them to public scrutiny" (Diamond 1994:7). And conversely, that democracy is fragile when it is a "democracy without democrats (Bracher 1971).

The argument is that an emancipative-oriented public will discipline the governing elite. Not only will the aspirations of the masses put pressure on the elected officials to obey by the democratic rules of the game, it will also affect the culture of the elites. The mentality of the elites is not isolated from the rest of society. Elected officials will abstain from exploiting their power on the expense of the opposition and its electorate. This reduces the risk that the opposition and its mass constituencies, those who lose political elections, will turn to non-democratic means in order to promote their interests. Having less to fear from handing over power to the winners of the election, the incentives to carry out a political coup or violent opposition vanish. This prevents politics from becoming a zero-sum game in which the loosing part in an election can accept exclusion from state power without fearing for their basic interests (see Inglehart and Welzel 2005; Dahl 1998; Diamond 1994; Diamond 1999).

Moreover, if the threat of a coup or a political entrenchment arises, the masses are likely to turn to collective action to prevent this. Conversely, if the system remains open and

democratic ordinary people will channel their demands through democratic channels (see Welzel and Klingemann 2008; Welzel 2007). In sum, both the winners and the losers of an election will be disciplined by an emancipative-oriented public at the same time as they will be more likely to act out of a genuine commitment to democratic ideals. This will prevent potential threats to democratic sustainability. From this I deduce the following hypothesis:

Hypothesis 5: Liberal-democratic mass values increases the chance that a democratic regime will survive, controlling for income level

Against this, it can be argued that maybe it is the other way around: The persistence of democratic institutions create and sustain liberal-democratic values. I have already touched upon the argument that liberal values are in fact a result of previous experience with democracy (Rostow 1960; Muller and Seligson 1994; Hadenius and Teorell 2005; Lindberg 2006). This is a version of the problem of endogeneity, which arises when we cannot exclude that an independent variable such as values is not determined by other variables in our model, such as democracy. Institutional learning theory argues that people learn to value democracy only by experiencing democratic institutions for many years. The values we are interested in must then be seen as result of many years of democracy, rather than an explanation. I will return to this problem in the methodological section.

This is related to the argument that transitions to democracy and survival of already democratic regimes are different processes with different explanations. Institutional learning theory is not necessarily incompatible with the proposition that liberal values make democracies endure. However, it is incompatible with the claim that values can bring about transitions from authoritarian to democratic regimes. The theory implies that liberal values and freedom aspirations cannot emerge in an autocratic system, and it looks for other factors to explain democratization.

4.4 Summary

In this chapter I have presented my theoretical contribution which entails a more sophisticated understanding of the relationship between liberal-democratic values and democracy. The starting point has been Inglehart and Welzel's (2005) contribution to modernization theory,

which consists of two links: One tying socio-economic modernization to the emergence of liberal-democratic values and another tying liberal-democratic values to democracy. The second link, which is the concern of this thesis, can be understood in three ways.

First, it implies that liberal-democratic values have an effect on democracy level. It prompts us to expect that a people are liberal oriented should be more likely to be democratic according. This proposition is challenged theoretically by the argument that underlying historical factors specific to each country may explain both level of liberal-democratic values and democracy. Hence, if there is a correlation between the two it is perhaps not due to a causal effect from values to democracy.

Second, it implies that liberal-democratic values have an effect on transitions from authoritarian to democratic regimes, through promoting collective action which will push authoritarian leaders to democratize. This is challenged by the literature on authoritarian regimes pointing to the inherent difficulty of carrying out change in an authoritarian context where dictators are able to neutralize the consequences of value change and popular discontent.

Third, it implies that liberal-democratic values helps to sustain already democratic regimes. Proponents of institutional learning theory however, argue that even if there is a relationship between the two this due an effect from democracy on attitudes rather than the other way around.

The hypotheses drawn from this discussion will be tested in chapter 6. Table 1 summarizes the hypotheses, the key theoretical contributions as well as the theoretical perspectives they are associated with. For each of the three different outcomes I am looking at I confront the proposition of Inglehart and Welzel with a theoretical objection.

Table 1. Three sets of hypotheses

Outcome	Hypotheses/proposition	Key contributions	Related approaches
Democracy level	1. *Liberal-democratic values increase the probability of a high level of democracy*	Inglehart and Welzel (2005)	Theories of mass values and modernization theory
	2. *The relationship between mass attitudes and democracy still exists when controlling for variables which vary between countries but not over time.*	Acemoglu et al (2008). Acemoglu and Robinson (2006).	Historical perspective
Democratic transitions	*3. Liberal-democratic values increase the probability of transitions from authoritarian to democratic regimes*	Inglehart and Welzel (2005). Welzel (2007). Welzel and Klingemann (2008)	Theories of mass values and modernization theory
	4a: Repression reduces the effect of mass attitudes on democratization *4b: Lack of freedom of expression reduces the effect of mass attitudes on democracy*	Przeworski and Limongi (1997). Kuran (1991). Bueno de Mesquita (2003).	Agency perspective. Economic perspective.
Democratic survival	*5: Liberal-democratic mass values increases the chance that a democratic regime will survive, controlling for income level*	Inglehart and Welzel (2005). Diamond (1999).	Theories of mass values and modernization theory.
	Institutional learning theory	Rostow (1960). Muller and Seligson (1994). Lindberg (2006).	Agency perspective

5 Research Design

5.1 Overview of the chapter

The aim of this thesis is to investigate whether certain mass attitudes can explain the emergence and survival of democratic regimes. The very nature of democratization, - happening due to a combination of factors and during the course of many years and in conjuncture with numerous other factors – complicates the job of detecting its determinants. In this chapter I present a research design, including chosen estimators, variables and data, which arguably can take into account many of the theoretical characteristics of the relationship between mass attitudes and democracy.

In the first section I briefly make the case that the statistical method can produce fruitful insights regarding the relationship between mass attitudes and democracy, and in the second section I discuss the relevant methodological challenges to my study. I show that there are particularly four major challenges: Problems of endogeneity, omitted variable bias and related to the latter, problems of heterogeneity and autocorrelation.

An important characteristic of my research design is the cross-sectional time-series structure of my data, which I discuss in the third section. As opposed to studies based on cross-sectional data I am able to utilize variation both over time and between countries to make more accurate inferences regarding the relationship between mass attitudes and democracy. This data structure allows me to mitigate some relevant threats to causal inferences in this thesis, at the same as it creates problems which affects my choice of estimation techniques: While ordinary least square (OLS) regression is rendered insufficient, I choose estimators and models which build on, but refine, various aspects of the OLS estimator. These estimation techniques will be discussed in detail in the fourth section.

In the fifth section I show how I deal with the challenge of missing values in the survey data by carrying out multiple imputation. An important premise in this thesis is that although imputation to deal with a high number of missing values leaves us with some uncertainty when it comes to the results, the uncertainty stemming from the alternative – making inferences only based on cross-sectional variation – is even more problematic. As such, I

argue that my approach provides the best qualified guess based on the available data. Finally, in the sixth section I present my choice of independent variable and control variables.

5.2 The case for a statistical analysis

In this thesis I set out to test a theory proposing a causal effect of mass attitudes on democracy. As I touched upon in chapter 3, institutional change is the outcome of complex causal configurations, the temporal structures of events which may intersect with one another, and the relative timing of that intersection. As a result, it is difficult to detect the causal determinants of democratic outomces, as "variables may have different causal effects across heterogeneous contexts" (Mahoney and Rueschemeyer 2003).

I follow King, Keohane and Verba (1994) in arguing that the aim of social science is causal inferences, in the sense of drawing more general conclusions on the basis of specific observations. The "fundamental problem" in causal inference in social science according to King, Keohane, Verba is the general unfeasibility of controlled experiments. The advantage of an experimental setting is that it allows us to exclude all rival explanatory variables other than the controlled stimuli, an opportunity we do not have in non-experimental studies (see Chalmers 1999; King Keohane and Verba 1995; McDermott 2002). Wooldridge (2009: 17) argues that most hypotheses in the social sciences are ceteris paribus in nature: all other relevant factors must be fixed when studying the relationship between two variables (see also Shepsle 2006). The hypothesis that liberal-democratic values have an effect on the emergence and sustainability of democracy requires that this relationship is not due to other factors. As we operate in a non-experimental setting, it is challenging to exclude such sources of bias.

This has led some to argue that explanations of democratization can best be understood through historical case studies of the different complex paths that led to democracy in different contexts (see Mahoney and Rueschemeyer 2003; Brady, Collier and Seawright 2004). It has been argued that democratization is unique for each context and in order to detect causal relationships we need a disaggregated approach. We face a situation where "x sometimes leads to y and other times not (George and Bennet 2005), and it has been argued that the best we can do when it comes to determinant of democracy is to make «conditional generalizations», that is generalizations which are valid under certain empirical "scope conditions" (see George and Bennett 2005; Mahoney and Rueschemeyer 2003: 10). By

limiting the analysis to certain contexts we are able to control for variables which are particular to a certain country, region or time-period, hence eliminating rivaling explanations.

However, statistical analysis should be seen as precisely a way of mitigating the challenge of non-linear contingent relationships by controlling for heterogeneity between observations[23] ((Lieberson 1991; Shepsle 2006; King, Keohane and Verba 1994). Both interaction effects between variables and timing of events are theoretically possible to incorporate as terms in our statistical model. Ideally we would be able to incorporate in our model the variables accounting for the heterogeneity between countries. If we have not identified these , a second-best solution is controlling for unknown country-specific factors. The complexity and heterogeneity which characterizes processes of democratization is certainly a challenge to the project of drawing general inferences, but the aim should be to incorporate this complexity into our statistical model. "Complexity is likely to make our inferences less certain but should *not* make them any less scientific" (King, Keohane and Verba 1994: 10).

5.3 Some important methodological challenges

I focus on four methodological challenges which may produce false inferences regarding the relationship between mass attitudes and political institutions. First, it is likely that there are variables not included in my explanatory model which affect both the level of liberal-democratic values and the level of democracy in a certain country. The problem of *omitted variables* was discussed in detail in the theoretical chapter, related to the argument of Acemoglu et al (2008) that underlying historical factors explain both a country's income level and its level of democracy. That is, the major source of bias when studying this proposed relationship is variables which vary between countries but not over time. There are many potential candidates to variables which may affect both mass attitudes and democracy, for instance religious traditions and early experience with accountable government. If these variables are not accounted for, the relationship between values and democracy may be exaggerated (see Stock and Watson 2007; Kennedy 2009; Hsiao 2003). Or we might conclude

[23] King, Keohane and Verba argue that the biggest challenge in studies with few number of cases is the problem "indeterminate research design", or the problem of few degrees of freedom, which makes us unable to draw causal inferences. We lack the necessary empirical basis for excluding rival explanations. "A determinate research design is the sine qua non of causal inference (King, Keohane og Verba 1994: 116).

falsely that the correlation between the two is due to a causal relationship (see Acemoglu et al 2008). One of the aims of this thesis is to respond to the problem of omitted variables, and evaluate whether this bias accounts for the proposed relationship between liberal-democratic values and democracy.

The second and third challenge are related to the problem of omitted variables. If we fail to identify and include all country-specific contextual variables in our model, the error terms will be correlated within countries. *Heteroskedasticity* occurs if the variation of the dependent variable around the regression surface – the error variance – is not the same everywhere. The differences in the error term may be correlated with some of the explanatory variables in the model (see Kennedy 2009: 115). It is not implausible to think that the level of liberal-democratic values is a better predictor of democracy level in some countries than in other. For instance, it could be that the liberal-democratic values have stronger effect in rich countries than in poor countries. For instance, Ghana may have a larger error term than Germany due to unmodeled factors, leading to inconsistent or meaningless coefficient estimates (see Hsiao 2003).

Furthermore, the problem of *autocorrelation* occurs if the error terms are systematically correlated in one way or another. For instance, the disturbance term in Singapore in 1997 may be correlated with the disturbance term in Singapore in 1996 and in 1995. Historical factors in Singapore may influence both the probability of democracy and a liberal-democratic culture at any time and as a result the error terms for this country may correlate over time. Often the problem of heterogeneity and autocorrelation go together. If there is between-country heterogeneity as result of omitted variables and these variables correlate over time this leads to within-country correlation (Rabe-Hesketh and Skrondal 2008).

We have a situation of exogeneity when the explanatory variables are not affected by other variables in the model. Conversely, the problem of *endogeneity* occurs when an explanatory variable is affected by other variables in the model. In practice we are mainly concerned with the problem occurring when the explanatory variable is affected by the dependent variable. In real life there is often a reciprocal relationship between an explanatory factor and the outcome where the two variables reinforce each other. This may lead to biased OLS estimates. It is problematic to assume that my independent variable, liberal-democratic values, is exogenous. As noted in the previous chapter there are many theoretical reasons why we can imagine that experience with democratic institutions affects the attitudes of the masses. Institutional

learning theory argues that people internalize an appreciation of freedom and self-expression after living under democratic institutions (see Muller and Seligson 1994). If this is the case the variable representing values may correlate with the past or the present error terms, creating biased results.

These challenges can all be seen as symptoms of the problems facing non-experimental studies (see Hsiao 2003). If our data was generated by controlled experiments we could normally exclude omitted variable bias. Moreover, we cold normally exclude the possibility that different observation units were influenced by different factors, thereby omitting the problem of heteroskedasticity. Finally, as we are in control of the stimuli, the explanatory variable, we would be able exclude endogeneity.

5.4 Analyzing cross-sectional time-series data

One of the main contributions of this thesis is the use of time-series cross-sectional data (TSCS-data) in the study of mass attitudes on democracy, also called panel data. A major advantage of cross-section time-series data is that it allows us to make inferences based on both variation over time and between countries. Inglehart and Welzel's (2005) inferences regarding the relationship between mass attitudes and democracy is mainly based on variation between countries, but this is arguable an insufficient source of information if we aim to make causal inferences (see Kennedy 2009).[24] All that a positive significant coefficient tells us in this instance is that liberal-democratic values tend to appear in countries with a democratic political system, while survival values are more common in countries where autocrats are in charge. In lack of other pieces of evidence this systematic pattern is an indication in favor of an effect of values on institutions, but it is a vulnerable source of inference. The theory, which I am interested in, assumes explicitly that democratic values bring about the emergence and survival of democracy. That is, it is a theory of co-variation over time and not only co-variation across units. If the theory is to hold up to scrutiny, we should be able to identify covariance along the time dimension within countries and not only between countries. That is, changes in mass attitudes should be followed by the proposed changes in political institutions.

[24] In Inglehart and Welzel (2005) studies of cross-section data is supplied by pooled cross-sectional data with observations at two different time-sections. This does not, however, allow for the time-series techniques which are carried out in my thesis. Inglehart and Welzel (2005) also presents one model which looks at the change in values and democracy which took place between two years, but with only two observations over time this is a very limited time-series.

Another advantage of time-series cross-sectional data is that it increases the number of units available for inferences. As compared to cross-sectional data, the number of units increases from N (number of cross sections) to NT (number of cross-sections times number of time points). My data consists of 96 countries and 28 years, which leads to more than 2800 observations. This means that the problem of indeterminate research design is likely to be reduced, as the number of observations to independent variables will increase (see King, Keohane and Verba 1994). In other words, it raises the leverage for excluding rival hypotheses. With this more informative data, more efficient estimation is possible (see Kennedy 2009).

Furthermore, an important advantage of time-series cross-sectional data is that it allows for estimation techniques which can mitigate the methodological challenges relevant for this thesis. First of all, by utilizing that there is variation both over time and between countries panel data techniques can control for omitted variables which vary either exclusively over time or exclusively between countries. That is, it can control for omitted variables which are specific toeach country but do not vary over time, leaving us with only variation over time. Conversely, it can help us to control for omitted variables which do not vary between countries but not over time. Some claim that the ability to deal with this omitted variable problem is the main attribute of panel data (see Kennedy 2009).[25] Second, panel data techniques can take into account the problem of endogeneity, by taking advantage of instrument variables which are uncorrelated with the error term but correlated with the endogenous independent variable (see Kennedy 2009

Ordinary least square regression (OLS) has been a popular method in comparative political science, (see e.g. Inglehart and Welzel 2005) but it is an estimation technique which fails to deal with the major methodological problems related to my research program. OLS assumes that the model is correctly specified meaning that there are no relevant omitted variables. It assumes that the error terms are homoscedastic and independent of each other. Moreover, it assumes that the independent variables are fully exogenous[26]. As I have showed these

[25] We cannot, however, control for variables which vary both over time and between countries which means that the threat of omitted variables cannot be excluded completely.

[26] For a thorough presentation of these assumptions see e.g. Kennedy (2009: 41-42).

assumptions are unlikely to hold in this thesis. This gives a situation where, in Hall's (2003: 374) words, the "methodology is not aligned with the ontology".[27]

In sum then, I consider the most important methodological challenges in this investigation to be endogeneity, heterogeneity between observations units, non-dependent observations, and related to the two latter, omitted variable bias. As a result conventional OLS regression is rendered inappropriate, and more sophisticated methods should be applied. In the next section I deal with the relevant estimation techniques in more detail.

5.5 Choosing estimators

5.5.1 OLS Fixed effects

It has commonly been argued that the most appropriate method for cross sectional time-series data is OLS with panel corrected standard errors (see Beck and Katz 1995; 2001). This is an estimator which takes into account the fact that the disturbance terms are likely to be correlated, both over time within the same country and between countries at the same time point t. It takes into account the fact that the model may be better at explaining democracy in some countries than others, in other words that there is heteroskedasticity.[28]

Yet, OLS with panel-corrected standard errors claims will identify a relationship between liberal-democratic values and democracy regardless of whether this is due to variance over time or variance between countries. I have already argued that inferring a causal relationship from the fact that mass attitudes and political institutions co-vary across countries is problematic. Ideally, if values explain democracy there should be covariance along the time dimension and not only across countries.

[27] Hall points out that the fundamental assumptions scholars make about the nature of the social and political world are gradually becoming more intricate including distant events, complex interaction effects and endogeneity. He emphasizes the need to adapt methods which can account for this reality, rather than assuming to simple causal, consistent, and independent effects across space and time: "To be valid, the methodologies used in a field must be congruent with its prevailing ontologies" (Hall 2003: 374).

[28] I run my models using panel corrected standard errors as part of the robustness tests in chapter 7.

Fixed effects models control for all variance between cross-sections in order to infer from the variance over time. In this model each cross-section is assigned a specific intercept which is treated as a fixed unknown parameter (Rabe-Hesketh and Skrondal 2008). This means that factors which vary between countries but not over time are kept constant. In other words, the part of the error term which is specific for each country is moved to the intercept, thereby reducing the problems of autocorrelation and heteroskedasticity. It is also a way of removing the effect of omitted variables specific to each country, as each subject serves as their own control in this model (Rabe-Hesketh and Skrondal 2008). It should be noted that fixed effects regression is not a "panacea for omitted variable biases" (Acemoglu et al 2008), as it does not control for time-specific omitted variables. However, it is a technique well suited for the relationship between attitudes and democracy, as the major source of bias regarding this relationship are likely to be country-specific.

Acemoglu et al (2008) emphasize the advantage of controlling for country-specific factors in studies of relationships of the kind investigated here. They argue that political scientists' objects of study such as institutions and socio-economic factors are systematically affected by historical contextual factors specific for each country. For instance, geographical or cultural factors may influence both economic development and democracy, creating the impression that there is a strong relationship between the two.

However, fixed effects models are not unproblematic. Critics argue that the model waste a lot of valuable information (see e.g. Beck and Katz 2001; Plumper and Troeger 2011).[29]. Controlling for all factors which vary between countries but not over time, the estimator is not using all the relevant information from our data set. The model will fail to estimate theoretically time-invariant variables, such as geography, colonial heritage or a climate prone to tropical diseases. Following from this, it has been pointed out that the model is inefficient when it comes to estimating the effect of variables that have very little "within variance", that is, very little variance over time within the cross-section units. As a result, fixed effects models may generate higher standard errors and unreliable estimates than alternative models, which increases the risk of committing type II errors.

[29] Plumper and Troeger (2007) also emphasise that it may be misleading to view methods controlling for unit fixed effects as ways of capturing systematic influence from omitted variables. Time-variant omitted variables may still bias the estimates.

Plümper and Troeger (2006) point out that many variables are close to time-invariant for the period under analysis simply because of researcher's selection of cases. For instance, lengthening the time period under observation could be a way of making the variable vary over time. If this is not feasible in practice, the effect of our variables in question will disappear when controlling for country-specific time-invariant effects. Meanwhile, these time-invariant variables may be theoretically interesting. It has been argued that such models risk "throwing out the baby with the bath water", as institutional cross-sectional variation which political scientists are mainly interested in is left out (Beck and Katz 2001; Plumper and Troeger 2007).[30]

As I am mainly interested in the effect of particular values on democracy, it is less problematic that the fixed effects model fails to produce a coefficient for time-invariant variables such as geography and colonial heritage. It is problematic, however, if the estimator also fails to produce an efficient estimate of the effect of mass values index because this variable has very little within-variance.

5.5.2 GMM (Arellano-Bond)

Although OLS fixed effects deals with the problem of autocorrelation and heteroskedasticity, the problem of endogeneity is still threatening the parameters and our ability to assign causal interpretations to our results. Thus, trying to account for endogeneity is an important step in clarifying the relationship between the two. The fixed effects OLS model assumes strict exogeneity. If a variable is not strictly exogenous it may correlate with the past or the present error terms, creating biased results.

The generalized method-of-moments (GMM) estimator advanced by Arellano and Bond (1991) seeks to solve the problems of autocorrelation and heteroskedasticity at the same time as it seeks to mitigate the problem of endogeneity. This estimator measures the effect of a change in the independent variables on the change in the level of democracy, using first differences to transform the equation

[30] Beck and Katz (2001: 285) argues that "(…) although we can estimate (…) with slowly changing independent variables, the fixed effect will soak up most of the explanatory power of these slowly chaning variables. Thus, if a variable (…) changes over time, but slowly, the fixed effects will make it hard for such variables to appear either substantively or statistically significant" .

$Democracy_{it} = \alpha Democracy_{it}-1 + Values_{it}\beta + u_{it}$

into

$\Delta Democracy_{it} = \alpha \Delta Democracy_{it}-1 + \Delta Values_{it}\beta + \Delta u_{it}$

This means that the parameters should be interpreted as the effects of changes in the explanatory variables on changes in y, and this has two important advantages. First, by differing the data the country-specific time-invariant effects are removed. All we are left is the variation over time, while all factors which do not vary over time including the ones that vary between countries are removed (Mileva 2007). We can see that that the country-specific error term, e, is removed from the full error term, u (v represents the error term common to all countries):

$\Delta u_{it} = \Delta v_i + \Delta e_{it}$

which means that

$u_{it} - u_{it-1} = (v_i - v_i) + (e_{it} - e_{it-1}) = e_{it} - e_{it-1}.$

Second, this may help to mitigate the problem of endogeneity: If democracy has an effect on liberal-democratic values this is unlikely to be due to changes in democracy from one year to the next, but rather the level of democracy in a country (Mileva 2007). In addition to allowing for exogenous instruments the model will also include lagged levels of the endogenous regressors. This makes the endogenous variables pre-determined and, therefore, not correlated with the error term in equation. The first-differenced lagged dependent variable is also instrumented with its past levels (Mileva 2007).

The fact that the estimator allows for a feedback effect from democracy to liberal-democratic values makes it more plausible to interpret our results in terms of causality than for instance when using the OLS estimator.

5.5.3 Dynamic Probit model

All the models I have looked at so far, OLS regression, fixed effects OLS and GMM Arellano-Bond, operate with level of democracy as dependent variable, or to be more specific, changes in level of democracy in the latter instance. The theoretical chapter made it clear that

I am also interested in distinguishing between transitions to democracy and survival of already democratic regimes. This can be achieved by means of a dynamic probit model (see e.g. Przeworski et al. 2000), which uses a dichotomous dependent variable where autocracy is coded 0 and democracy coded 1.

This type of model is sometimes called transition model (see Beck et al 2002), and has been utilized by for example Przeworski and Limongi (1997), Przeworski et al (2000), Boix (2003) and Gleditsch and Ward (2006). The logic behind this model is that the probability of democracy at t depends on the value on y at t-1. The model analyses the transitions from a lagged y of 0 or 1 to a current y of 0 or 1, allowing for different processes based on the lagged value of y. The probabilities of y = 1 at t becomes

$P(\text{Democracy}_t = 1|\text{Democracy}_{t-1} = 0) = \text{Probit}(\text{Values}_t\beta_1)$

$P(\text{Democracy}_t = 1|\text{Democracy}_{t-1} = 1) = \text{Probit}(\text{Values}_t\alpha)$

When using the *same* variables to explain both this can be written more compactly as

$P(\text{Democracy}_t = 1) = \text{Probit}(\text{Values}_t\beta_1 + y_{t-1}\,\text{Values}_t\,\alpha)$

where

$\beta_2 = \alpha - \beta_1$

as the effect of values at $_{t-1}$ vanishes when $\text{Democracy}_{t-1} = 0$. Thus, the parameter β_1 indicates the effect of liberal-democratic values on the probability of democracy at time t given autocracy at t-1. That is, the effect of values on the probability of democratization. The parameter $\beta_2 = \alpha - \beta_1$ indicates the effect of values on the probability of democracy at time t given that there is democracy at time t-1. In other words, the effect of values on the probability of democracy surviving from one year to the next.

In practice, I estimate these parameters by including the lagged dependent variable Democracy_{t-1} as well as interaction terms between Democracy_{t-1} and all other lagged explanatory variables. The interaction terms will model the probability of a democracy surviving from t-1 to t. If democracy is 0 at t-1 the interaction term will equal 0. If we want to look at transitions from non-democracy to democracy we look at the lagged explanatory variables.

5.6 Missing values and multiple imputation

"If archaeologists threw away every piece of evidence, every tablet, every piece of pottery that was incomplete, we would have entire cultures that disappeared from the historical record" (King and Honaker 2010: 563).

A fundamental challenge to my analysis is the lack of temporal variation on the data from World Values Survey. As of today, the World Values Survey contains only five waves, the first one carried out in 1981 and the most recent one in 2009. The European Values Study contains four waves, carried out in the same time interval. Many countries have participated in less than five waves, meaning that there is a significant amount of gaps in the survey time-series. In this section I justify using multiple imputation to cope with this missingness problem, and in particular the imputation algorithm Amelia II developed by King and Honaker (2010).

A conventional response to the problem of missing variables has been listwise deletion, a procedure where all the units with at least one missing values are excluded from the analysis. Reviewing recent studies of survey data King et al (2001) claim that around 94 % of all studies employ listwise deletion. At the same, they argue that this procedure results in "a loss of valuable information at best and severe selection bias at worst" (King et al 2001). To start with the first, even if data is missing completely at random, listwise deletion leads to inefficient inferences. It has been shown that the point estimate in the average political science article is about one standard error farther away from the truth because of listwise deletion as compared to omitting the entire variable with missing values (King et al 2001). This is half the distance from no effect to what usually is termed "statistically significant" (i.e., two standard errors from zero). Moreover, Hoeyland and Nygaard (2011) in their replication of Collier and Hoeffler (2004) show that listwise deletion create massive bias.

Second, in reality the missing values are very often systematic and this may lead to serious selection bias. Among the 97 participants in the World Values Survey there is an overweight of rich, democratic countries among those who have participated in all survey waves. The same things goes for the democracy indicators from both Freedom House and Polity and socio-economic indicators such as GDP per capita, school enrollment and income inequality.

That is, societies with a democratic political system and where the masses usually hold liberal self-expression values are likely to have fewer gaps in the time-series. If we were to delete all countries which failed to participate in one or more survey wave, we would get a dataset prone to exaggerate the effect of values on democracy. Moreover, what if specific types of dictatorship are selected out of the sample at particular points in time. It is likely that those autocratic regimes which expect that they have less to fear from carrying out a survey will be likely to allow it. For instance, regimes which expect that there are suppressed desires for democracy and liberal-democratic values in the population will have incentives to contain this information. This may lead to systematic biases. There may of course be other explanations than regime tactics for why some autocratic regimes are not in the sample, but it is not implausible to believe that there are systematic differences between those dictatorships where surveys have been carried out regularly and dictatorships which have not participated in several waves.

Multiple imputation techniques seek to increase the efficiency as well as minimize the selection bias following from listwise deletion[31]. Each missing value is filled in with several imputations, built on information extracted from the non-missing observations via a statistical model. The idea behind this is that rather than excluding all incomplete information, we should use the partial sources and combine together to reconstruct much of the complete picture (King and Honaker 2010).

Although multiple imputation has several advantages over listwise deletion it will inevitably produce imputed values characterized by a minimum of uncertainty, especially when we deal with datasets with a large number of missing values. Yet, a central premise in this thesis is that accepting this uncertainty is a price that I am willing to pay to avoid other more serious sources of bias. First of all, there are many reasons to assume that the inferences regarding the effect of values on democracy will be more uncertain using the original dataset. I have already discussed King and Honaker's claim that listwise deletion will create more uncertain results than multiple imputation. In addition, I have showed that making inferences regarding the effect of values on democracy solely based in cross-sectional variation is very problematic, and may leave us the impression that values has an effect on democracy although there is *no co-variation between the two over time.*

[31] Another commonly used tool for handling missing values in political science is linear interpolation, but this method becomes increasingly more problematic when each gap in the time series is larger than one year (see Høyland and Nygård 2011).

The advantage of King and Honaker's proposed imputation algorithm, Amelia II, as opposed to other imputation techniques, is that we get an estimate of the uncertainty of the imputations, represented by the variation between the different imputations for each missing value (see Little and Rubin 2002). I will incorporate this uncertainty into my results and interpretation by applying my most important models to each of the five imputed datasets. If my results vary between the datasets I may be left with several rivaling explanations, but all I can do is accept this uncertainty as part of my conclusion. That is, I avoid drawing false conclusions which ignore the uncertainty of the estimates – rather, I accept that the conclusions are not bullet-proof.

Another advantage with King and Honaker's imputation algorithm is its ability to deal with the reality of cross-section time-series data. Compared to other imputation techniques recognizes the tendency of variables to move smoothly over time, to jump sharply between some cross-sectional units, and for time-series patterns to differ across many countries (King and Honaker 2010). Using Amelia II I impute for all the missing values between 1981 and 2009. I add a second order time polynomial in order to allow for the time series to move smoothly, but with trends. I interact the time polynomials with each cross-section in order to allow the patterns over time to vary between the cross-sections. In other words, I allow for country-specific time trends. For each imputed values survey variable I add logical bounds corresponding to its maximum and minimum values in order to prevent outlier imputations.[32]

In sum, I impute both in order to analyze those countries who have not participated in all of the World Values Survey waves and in order to fill in the gaps between the survey observations in order obtain complete time-series. The variation between the imputed values for each missing value reflects the uncertainty due to the high missingness. Amelia is commonly used in recent studies (see e.g. Ross 2008; Hegre et al 2012; Stasavage 2005; Kelly and Kelly 2005; Gay 2002), and has been reported to produce reliable estimates.[33]

My imputation procedure solves the problem of gaps in my time-series. What I cannot solve, however, is potential bias due to the fact that several countries are excluded from analysis altogether and the relatively short length of my time-series. The countries that have never

[32] Ideally, I would have added logical bounds to each variable but when I tried to do so the imputation would not run. I solved this by adding logical bounds to the imputed values, setting all values above the maximum values to be equal to the maximum values, and all values below the minimum value equal to the minimum vales.
[33] It should also be noted that Amelia does not technically add new information to the dataset. Rather, it aims to fill in the missing values without adding to the likelihood (see King and Honaker 2010).

participated in WVS or EVS will be excluded altogether[34]. As of today, the WVS in collaboration with EVS have carried out representative national surveys in 97 societies containing almost 90 percent of the world's population. This means that a solid share of the world is covered, but the countries which *are* left out are likely to be correlated with both my independent and my dependent variable.

The fact that the WVS carried out its first round in 1981 means that I do not incorporate information from the years prior to this. All relevant information regarding the relationship between values and regimes up until 1981 is left out. We fail to take into account the first and second wave of democratization to use Huntington's (1991) term as well as the beginning of the third wave of democratization taking place in the mid-1970s. Boix and Stokes (2003) have argued that studies of democratization limited to the 1950-90 period gives distorted conclusions regarding the effect of economic development on democracy. They argue that the analysis should be extended back to mid-nineteenth century. At the same time, this problem is mitigated by the fact that I use a gradual measure of democracy (the exact indicators are described below). This means that I am able to capture all minor to significant changes in level of democracy which took place during these years, in addition to all minor changes towards autocracy. Hence, the variation on my dependent variable captures more than simply the most prominent transitions from autocracy to democracy that took place during the third wave of democratization.

5.7 Variables

I have already discussed the choice of indicator for my dependent variable, arguing that the Freedom house index is the most appropriate operationalization of my conception of democracy. In this section I present my independent variables as well as a selection of control variables.

5.7.1 Independent variable: Liberal-democratic values

It follows from Inglehart and Welzel's theoretical framework (2005) that what I refer to as liberal-democratic values consists of a selection of related aspirations lying at one end of a

[34] Technically it would be possible to include these countries, but the

dimension, where so-called survival values lie at the other end. Individuals emphasizing survival values tend to give top priority to economic and physical security. They often perceive foreigners and cultural diversity as threatening, cling to traditional gender roles and sexual norms, and emphasize absolute rules and old familiar norms. At the other end of the dimension lies individuals valuing human autonomy, participation, tolerance, trust and self-expression (Inglehart and Welzel 2005; 2008; 2009). They resemble what the literature on attitudes has referred to as "democratic", "open" and "self-actualizing" orientations (Maslow 1988; Lasswell 1951; Adorno 1950). I rely on studies from psychology showing that inclinations towards freedom, openness, tolerance and participation tend to appear together in a so-called "open belief system" (Rokeach 1960; Schwartz 1992). It is assumed that this value syndrome varies consistently between populations. This means that a population which scores high on of these attitudes scoring correspondingly high on the others as well (Welzel and Inglehart 2007).

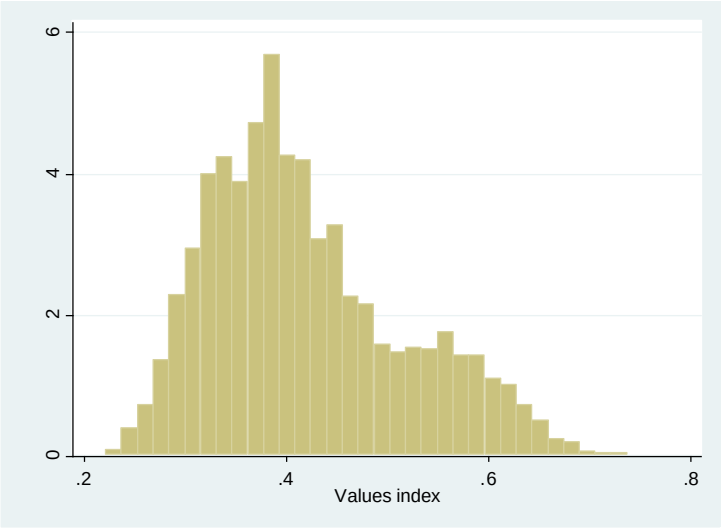
I have already showed that the mass values we are interested in are genuine commitments to the intrinsic values of democracy, rather than a lip-support for democracy. This needs be reflected in my operationalization. It is crucial to choose indicators which measure to what extent aspirations for freedom and self-decision are actually internalized by citizens. Schedler and Sarsfield (2007), for example, show that to state support to democracy or label democracy as a good thing does not necessary mean that people value the ideals which characterize a democratic system. Different studies show that a very high share of respondents answer yes when asked whether democracy is a good thing, but many of these same respondents lack an understanding or appreciation of the content of the democracy concept (see Seligson 2004). Indicators which directly tap where respondents position when it comes to for instance authorities, tolerance towards diversity and trust tend to coincide much better with the value dimension which I am interested in.

At the same time, liberal-democratic values should be distinguished from so-called communal attitudes, reflecting people's tie to each other and society at large (see Newton 2001; Putnam 1993). People holding strong communal attitudes tend to emphasize solidarity and trust in fellow citizens. They are often members of so-called "sociotropic" associations such as charity, environmental and cultural associations and place great trust in state institutions such as the army, the police and the civil service (see Welzel 2007). People with such attitudes are unlikely to push for institutional change due to an (uncritical) confidence in the present

system combined, at the same time as they do not have strong preferences for ideals such as freedom and autonomy.

The World Values Survey contains a wide selection of indicators which can be seen as tapping the liberal-democratic value dimension. In order to allow for a fair replication of Inglehart and Welzel's study I will start out using their chosen index of liberal-democratic values. This is an additive index made up of four indicators. The first measures respondents' own feeling of happiness on a four-point scale from "Very happy" to "Not at all happy". The second measures respondents trust in other people, based on a question of whether he/she thinks that most people can be trusted or that you need to be very careful. The third indicator measures a respondent's propensity to engage in civic action, reporting whether the respondent already has or would consider participating in signing a petition. Finally, the autonomy index from the World Values Survey measures the respondent's emphasis on independence, imagination, obedience or religious faith in the upbringing of children. I combine the four indicators into an additive index ranging from 0 to 1, where 1 signifies very liberal values. The histogram below illustrates the distribution of this index:

Figure 1. Inglehart and Welzel's values index



Index ranges from 0 to 1, where 1 equals most liberal values.

Inglehart and Welzel (2005) argue that it would have been preferable with an index made up of a larger number of survey question, but that the problem of missing values put restrictions on the number of feasible indicators. Having carried out a multiple imputation I am no longer

limited by this restriction. In order to maximize reliability and validity, I also create an index made up of 15 indicators, chosen on the basis of Inglehart and Welzel's (2005) own theoretical propositions. In a discussion of the liberal-democratic value dimension the literature points to several sub-components of this dimension (see Welzel 2006; Welzel 2007; Welzel and Klingemann 2008), from which I select four.

Firstly, the dimension comprises tolerance towards diversity and people with different backgrounds (see Welzel 2007). To operationalize tolerance, I use four statements from the World Values Survey which survey participants are asked to respond to with either "I agree" or "I disagree". "I agree" is coded as 1 and "I disagree" as 0:

A. I would not like to have as neighbors: People with a criminal record

B. I would not like to have as neighbors: People with a different race

C. I would not like to have as neighbors: Heavy drinkers

D. I would not like to have as neighbors: People with AIDS

Second, I include an egalitarian orientation that supports the equality of women to men. To operationalize attitude to gender equality I use the following three statements:

A. A woman needs children to be fulfilled

B. University is more important for boys than for girls

C. Men make better political leaders than women

Respondents are asked to respond to the first statement with either "I agree" (coded 1), coded as 1 and "I disagree" (coded as 0). To the second and the third statement respondents are asked to choose between four options: Agree strongly (1), agree (2), disagree (3) and disagree strongly (4)

Third, I include liberal orientations assigning priority on sexual freedom over restriction (see Welzel and Klingemann 2008). Sexual liberty is operationalized with four indicators measured by recording participants' response to the following statements:

To what extent can the following be justified?

1. Homosexuality

2. Prostitution

3. Abortion

4. Divorce

Respondents are asked to rank their attitude to each statement on a scale from 1 to 10, where 1 equals never justifiable and 10 equals always justifiable.

Finally, I include an autonomous orientation question that emphasizes autonomy and imagination against faith and obedience. I choose indicators based on participants response to the following question:

Which, if any, do you consider to be especially important? Please choose up to five.

A. Independence

B. Imagination

C. Obedience

D. Religious faith

If the respondent mentions a quality, this is coded as 1, and if it is not mentioned, this is coded as 0. The four indicators are then combined in such a way that a respondent gets one point for each mentioned A and B and one minus point for each mentioned C and D.

All indicators are converted into dichotomous variables where 0 represent survival values and 1 represents liberal-democratic values. They are then combined into the four additive sub-components as described above, which again are additively combined into my extended liberal-democratic values index. Below are the results from an unrotated principal factors analysis. The fact the Eigenvalue for Factor 1 is so strong compared to the Eigenvalues for factors 2-4 confirms the theoretical assumption that the four selected sub-components tap one common dimension which I refer to as liberal-democratic values. The four dimensions also

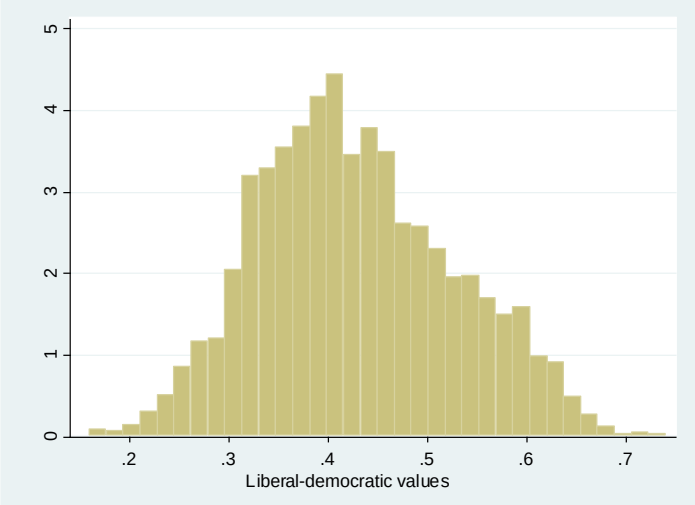
load relatively strongly on this one dimension, although autonomy has a lower factor loading than the other three dimensions.[35]

Table 2. Factor analysis of the liberal-democratic values index

Eigenvalues from factor analysis of four dimensions of liberal-democratic values	
Factor	*Eigenvalue*
Factor 1	1.60198
Factor 2	0.34967
Factor 3	-0.08925
Factor 4	-0.27992
Factor loadings for factor 1	
Component	*Factor loading*
Tolerance	0.7248
Sexual liberty	0.6890
Gender equality	0.7035
Autonomy	0.3271

The histogram below describes the distribution of countries on the extended values index. We can see that this index is closer to the normal distribution than the more narrow index.

Figure 2. Values index with 15 sub-components



[35] Theoretically however, the autonomy indicator is a very central component of so-called liberal-democratic values, as it directly taps respondents attitudes to authorities and the importance of self-decision. This explains why I choose to include it in the final index of liberal-democratic values despite its weak factor loading.

Index ranges from 0 to 1, where 1 equals most liberal values.

5.7.2 Control variables

As I am investigating the effect of values on political institutions, I want to filter out variables which affect both values and political institutions, and hence may generate omitted variable bias if not entered in regression model. In this section, I present the control variables which I include in my models. I have selected variables which in the literature have been shown to affect both mass attitudes and democracy.

I carry out my analysis in several main steps and I specify the choice of control variables for each of these steps. The first step has Inglehart and Welzel's model (2005) as a starting point, and as I want to replicate their analysis I select similar control variables. When adding fixed effects and applying the Arellano-Bond estimator in the second step I keep the choice of control variables constant in order to assure that any changes in the coefficient estimates are due to the change in estimation techniques rather than other specification changes.

When carrying out the dynamic probit model in the third step I keep the variables which were found to be significant in the models in step one and two. In addition I add a few variables which the literature suggest are particularly relevant for the relationship between liberal-democratic values and democracy. There are many more variables which I could have added to this model in order to mitigate the problem of omitted variables as much as possible. This however may stimulate problems of multicollinearity which arises when two or several of the explanatory variables correlate and indirect effects (see Kennedy 2009: 192-4), and as a result I choose to leave these out of the original model. As part of the robustness checks in the last chapter I estimate an extended model using additional control variables suggested from the literature.

Control variables for replication model

Income

As level of liberal-democratic values probably is strongly affected by a country's income level (see Inglehart and Welzel 2005), it is necessary to investigate whether liberal-democratic values have an effect on democracy independently of income. I operationalize income using GDP per capita measured in 2000 US dollars, collected from the World Development Indicators (WDI). In addition I carry out a robustness-test using Purchasing Power Parity-adjusted (PPP-adjusted) GDP per capita. This version of GDP per capita is calculated using local prices, and may therefore be a better indicator of material security, the factor explaining why income enhances liberal-democratic values according to the theory. I operate with log-transformed GDP per capita, as this transformation creates a distribution much closer to the normal distribution than the original variable.

Education

Inglehart and Welzel's (2005) argue that education is a driving force in the diffusion of liberal-democratic values. Education creates an independent-minded public with a feeling of more freedom and choice. At the same time education has been as an essential part of modernization as described by Lipset (1959) who thought that this broad syndrome eventually would enhance democratic development. I operationalize education using the net enrollment ratio of children of official school age who are enrolled in primary school and secondary school to the population of the corresponding official school age. The indicators are collected from the World Development Indicators.

Ethnic fractionalization

It is commonly presumed that social heterogeneity limits the prospects for democratization. In ethnically divided societies ethnicity often becomes the most salient dimension of competition, leading to the emergence of ethnic parties, divisive elections and an opposition prone to violence and coups (see Alesina et al 2003; Horowitz 1985). It has been argued that ethnic heterogeneity may impact on the design of political institutions and regime type (see Lijphart 1999). At the same time ethnically divided societies may prevent the emergence of trust and tolerance, thereby affecting both the level of liberal-democratic values as well as the level of democracy. To measure this I include the Ethnic Fractionalization Index from Alesina

et al (2003), capturing both ethnic and linguistic heterogeneity. It ranges from 0 to 1, reflecting the probability that two randomly selected individuals from a population belongs to different groups.

Religion

Another variable which may impact both democracy and liberal-democratic values is religious tradition. It is claimed that Protestantism has a positive impact on both democracy and mass attitudes. Lipset (1959) argued that the flourishing of democracy in Western Europe has had to do with the protestant tradition and its greater emphasis on individualism than other religions. At the same time various scholars have argued that Catholicism, Orthodox Christianity, Islam and Confucianism have a negative impact on the prospects of democracy. Especially Islam is often identified as an obstacle to democracy (see Teorell 2010), although many dispute that it is really Islam in itself or really other factors associated with it such as female subordination (see Fish 2002) or the fact that Islamic populations are often found within the political context of the Arab World (Ross 2001; Stepan and Robertson 2003). I include in my statistical model variables which capture protestant and Muslim tradition. These are dummy variables created from a variable in the Pippa Norris dataset classifying countries according to the religion which is practiced by the largest group of people in this society.

Export

It has been argued that socio-economic development will be conducive to democracy only if a country has a favorable position in the world economy, being able to trade with the capitalistic centers (see Wallerstein 1974). Moreover, free-trade theory suggests that countries which rely on international trade will develop liberal tendencies because their constantly exposed to diverse new ideas from the outside (see Bollen and Jackman 1958). Hence, I want to include a variable capturing the extent to which a country relies on international trading partners through export. This is operationalized using an indicator measuring the value of total exports of goods and services in constant 2000 US dollars, collected from the World Bank national accounts data.

Military expenditure

Inglehart and Welzel (2005) also include a variable measuring a regime's coercive state capacity in terms of military expenditure. They argue that extreme imbalances in the distribution of wealth makes regimes establish strong coercive capacities, as the privileged classes need power to protect the system against redistributional claims of the lower classes[36]. Moreover, the literature suggests that regimes with large military expenditure, controlled for income, are more likely to be unequal, as resources are allocated to the military on behalf of welfare spending on for instance health or education (see Ali 2007). I operationalize military expenditure with an indicator from the Banks (2011) cross-section time-series dataset measuring the national defense expenditure per capita. It can be argued perhaps that this variable should be measured

Control variables for the dynamic probit model

Natural resources

The argument that natural resource abundance has anti-democratic effects has gained foothold in the literature. Ross (2001) found that both the abundance of oil and other non-fuel minerals had a clear negative effect on the prospects for democratization (see also Teorell 2010). This is due to the development of a "rentier state" – a country rich on natural resource wealth which is able to both buy off a potential opposition through tax cuts and bribes and keep an extensive repression apparatus alive. The access to vast natural resources have made it unnecessary for the government to invest in human capital, instead it feeds on the revenues from oil exports (Inglehart and Welzel 2005; Barro 1997; Ross 2001). Thus, although people in these societies face material security they have not been exposed to the diversification in occupation and human interaction that stimulates individuality and which according to Inglehart and Welzel (2005) is necessary to develop liberal-democratic values. To operationalize natural resource abundance I use two variables collected from the Ross dataset, fuels and minerals. The first measures the export value of mineral-based fuels (petroleum, natural gas and coal) and the other measures the export value of non-fuel ores and motels. Both are expressed as fractions of GDP.

[36] Inglehart and Welzel (2005) do not suggest a clear reason for why military expenditure should affect liberal tendencies, and this choice of control variable does not have a clear theoretical fundament. Nevertheless, in order to allow for comparison with their results I choose to include in the first stage of my analysis.

Economic inequality

An influential strand of literature argues that income disparity reduces the prospects of democratization (see Boix 2003; Acemoglu and Robinson 2006). When economic inequality is high the autocratic elites fear the outcomes of democratization in terms of economic redistribution. They will have incentives to prevent democratization by means of repression. Moreover, in a democracy the rich elites will have incentives to stage a coup in order to avoid future redistribution. At the same time, if a society is sufficiently economic equal this may again reduce the probability of democratization, as citizen's incentives to revolt are lowered (Acemoglu and Robinson 2006; Burkhart 1997). The effect of economic equality is particular relevant when studying the effect of values on institutions, as the diffusion of liberal-democratic values in a society is likely to be stimulated by increased equality and opportunities for the average citizen. I operationalize inequality using the Gini coefficient from the World Development Indicators, measured on a percentage scale where 0 represent perfect inequality and 100 represents perfect equality. The Gini coefficient has been criticized by for instance Houle (2009), who points out that it is calculated on national surveys and therefore is insufficient when it comes to comparability. Yet it remains one of the most commonly used indicators for income inequality.

Population

Population size is another variable that may impact on both levels of democracy and mass attitudes. An old school of thought argues that democracy is more likely to prosper in smaller countries (see Dahl and Tufte 1973), an argument that has been shown to have empirical support (Knutsen 2006). This is linked to the argument that taking government closer to the people increases participation, loyalty and trust – in other words, it may strengthen liberal-democratic values. Population size is here operationalized by the log of population size. Population level is initially measured with one unit equaling 1000 citizens. However, as for income, an increase in population of 1 million inhabitants is likely to have larger impacts on economic and political matters for a country the size of Norway than for a country the size of China. Thus, also population level is log-transformed.

Additional control variables

In order to test the argument that repressive authoritarian regimes may be able to quell collective change and opposition, I include an indicator measuring the degree of political repression, CIRI's Physical Integrity Rights Index (Cinganelli and Richards 1999). This is an additive index is constructed from indicators measuring the degree of torture, extrajudicial killing, political imprisonment and disappearance. It ranges from 0 (no respect from these rights) to 8 (full government respects for these rights). The Physical Integrity rights index correlates 0.55 (update) with the Freedom House index and 0.33 (update) with the revised combined Polity schore.

In the theoretical chapter I argued that the extent to which mass attitudes have an effect on democracy is conditioned on the extent to which potential opposition groups are able to coordinate their activities. Means of communication between members of the opposition as well as access to mass media are necessary requirements for being able to organize collective action, reach out with their message and recruit new potential opposition members. The extent to which the masses are able to coordinate collective action is operationalized using the Banks media scale. This is an additive index combining the number of TVs per capita, Radios per capita, newspaper circulation per capita and percent of internet users, ranging from 0 to 100.

In order to replicate Inglehart and Welzel (2005) and evaluate the impact of introducing fixed effects on the results, I need to include control variables similar to those in Inglehart and Welzel's model. Many of those mentioned above were included in their model. In addition, they add a variable measuring military expenditure and In accordance with Inglehart and Welzel, I also add dummy variables for different geographical regions collected from the Pippa Norris dataset.

Furthermore, in my robustness tests, I add a selection of additional variables relevant for explaining democracy according to the literature (see Teorell 2010). Urbanization is operationalized as the midyear population of areas defined as urban in each country, in percent of total population and collected from the World Development Indicators. From the same dataset I include a variable measuring unemployment, referring to the share of the labor force that is without work but available for and seeking employment. I include a dummy variable from the Pippa Norris dataset capturing former British colonies. Conflict is operationalized in terms of and indicator measuring the number of the incidence of internal

armed conflict from UCDP/PRIO Armed Conflict Dataset. Finally, in order to evaluate the endogenous impact of mass attitudes I will attempt to use demography as an instrumental variable. It has been shown that a society's age composition affects the level of liberal-democratic values (see Inglehart 1997). As far as I am aware of there are no theoretical or empirical arguments linking age composition, as such, to level of democracy. I operationalize this variable using an indicator representing share of population which is older than 65 years old, collected from World Development Indicators.

Below is a summary of the different models and their specifications when it comes to included control variables.

Table 3. Important models and their aim.

Model	**Estimation technique**	**Variables**	**Aim**	**Hypothesis**
1. Baseline model	OLS	DV: Freedom House index IV: Values index CV: Lagged Democracy GDP (logged) Education Ethnic Fractionalization Military spending Export Protestant majority Muslim majority Regions	To replicate Inglehart and Welzel (2005)	1
2. Baseline with fixed effects and GMM	OLS fixed effects/ GMM (Arellano-Bond)	Same as baseline model	Controlling for country-specific time-invariant variables. Take into account endogeneity.	2
3. Survival of democracies and authoritarian regimes	Dynamic probit model	DV: Dichotomized Freedom House index IV: Values index CV: Values index GDP (log) School enrollment Muslim majority Economic inequality Oil dependency Export	Distinguish between transitions to democracy and democratic survival. Investigate possible interaction effects	3 4a-b 5

DV = Dependent variable. IV = Independent variable. CV = Control variables.

Finally, I round off this chapter by presenting the descriptive statistics for the selected variables which I described above. I present the statistics for both the original dataset and the imputed datasets. Table 4 and 5 show that according to the descriptive statistics the difference

between the original dataset and the imputed data set seems to be minor. We see that the average value of the Freedom House index which ranges from 1 to 7 is 4.84 in the imputed dataset and 4.72 in the non-imputed dataset. The liberal-democratic values index which has been set to range from 0 to 1 has a mean value of 0.42 in the imputed dataset and 0.44 in the non-imputed dataset. When it comes to number of observations all variables in the imputed dataset will have 2812 observations, with the exception of the democracy indicator of Alvarez et al (2007) which was added to the dataset after the imputation procedure.

Table 4. Summary statistics of relevant variables.

Variable	N	Mean	Std. Dev.	Min	Max
Freedom House	2812	4.836347	1.934825	1	7
Democracy (Alvarez-Cheibub)	2430	.6485597	.4775184	0	1
Values index	2812	.4192937	.0968223	.2218029	.752681
GDP per cap (log)	2812	8.08108	1.517799	4.62691	10.9400
School enrollment (%)	2812	77.1856	18.05823	7.419665	100
Ethnic fractionalization	2812	.5526764	.3454701	.002	1
Export	2812	208090.9	245793.6	-439574.7	1630389
Military spending	2812	19028.57	20459.07	-39778.64	215559
Protestant majority	2812	.1938834	.35562	0	1
Muslim majority	2812	.1679232	.3580386	0	1
British colony	2813	.271216	.4005946	0	1
Gini	2813	38.37033	8.064486	19.4	70
Oil export (log)	2813	.4913537	1.764887	-9.72226	4.60517
Population (log)	2812	9.409971	1.757427	3.66934	14.10173
Demography	2812	28.31985	10.08081	7.807635	49.1257

Physical integrity	2812	5.172681	2.102703	.1641762	8
Banks media scale	2812	18.26297	15.45541	0	87.4895

Data from 1981-2008, covering 98 countries.

Source: Freedom House, Alvarez et al., World Values Survey, World Development indicators, Banks dataset, Ross dataset.

Table 5. Descriptive statistics. Non-imputed dataset.

Variable	N	Mean	Std. Dev.	Min	Max
Freedom House	2446	4.724039	1.999256	1	7
Values index	270	.4366882	.1139819	.2431059	.752681
GDP per cap (log)	2560	8.104326	1.559699	4.62691	10.94003
Vanhanen's power resource index	68	17.25	16.85809	0	52.2
School enrollment (%)	647	84.0445	15.02537	17.1426	99.95692
Ethnic fractionalization	2021	.3785937	.2413843	.002	.9302
Export	1161	163556.4	260749.4	314	1630389
Military spending	74	17101.14	30479.36	232	215559
Protestant majority	2035	.1980344	.3986162	0	1
Muslim majority	2035	.2088452	.4065835	0	1
British colony	2178	.2644628	.441148	0	1
Gini	340	40.42647	10.57561	19.4	63
Oil export (log)	977	3.146299	7.188558	.0000599	76.73557
Population (log)	2745	5.32e+07	1.57e+08	39226	1.33e+09
Demography	2687	28.4794	10.24435	13.4359	49.12571
Physical integrity	1833	5.32024	2.19828	1	8

Banks media scale	2192	17.7943	16.3179	0	87.4895

Data from 1981-2008, covering 98 countries.

Source: Freedom House, Alvarez et al., World Values Survey, World Development indicators, Banks dataset, Ross dataset, Vanhanen (2007).

5.8 Summary

My research design is characterized by the fact that I utilize cross-sectional time-series data. This data structure has several advantages and I argue that it allows me to make more accurate inferences regarding the effect of values on democracy through utilizing variation over time. At the same time cross-sectional time-series data may create problems when using standard linear regression, rendering conventional OLS regression insufficient.

I have argued that in particular four methodological challenges may threaten my results: omitted variables, heteroskedasticity, autocorrelation and the problem of endogeneity. I seek to mitigate these by choosing appropriate estimation techniques drawing on King and Honaker (2010). Moreover, I respond to the problem of missing data by carrying out multiple imputation. I argue that although imputation attaches some degree of uncertainty to the results, this uncertainty is less grave than the uncertainty stemming from inferences on the relationship between attitudes and democracy solely made on the basis of cross-sectional variation.

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6 Results

6.1 The logic of the empirical analysis

My empirical analysis proceeds in several stages. I start out with a baseline model which aims to replicate Inglehart and Welzel's model (2005), choosing estimation techniques and control variables which are similar to or close to their choices. This model is applied to the original dataset before I run it using the imputed dataset, in order to be able to say something about possible difference created by the imputation procedure. Second, I use a fixed effects model and Arellano-Bond estimation in order to control for country-specific omitted variables. In order to assess how the fixed effects model alters the results as compared to the baseline model, I keep the choice of variables constant. Third, I present the results from a dynamic probit model, aiming to provide more accurate and nuanced insights regarding the nature of the effect of values, and how these may differ between democratization and democratic stability.

The logic behind this procedure is that I start out with the most general proposition and the least critical empirical test: The hypothesis that liberal-democratic values affects democracy level analyzed using linear regression on cross-sectional data. Subsequently, I gradually apply more critical tests, moving from cross-sectional analysis to cross-sectional time-series, thereafter taking into account potential problems of omitted variables and endogeneity. At the same time, I probe deeper into the nature of the relationship between values and democracy, moving from analyzing level of democracy to distinguishing between democratic transitions and democratic survival and investigating whether the effect of values on democracy is conditioned upon regime coercion.

The multiple imputation process, which I described in the previous chapter, has provided me with five different data sets, and the variation across these data sets represents the uncertainty stemming from the imputation process. As discussed in chapter 6, I operate in the following analysis with a data set which equals the *average of all five imputed data sets*. In addition, I have run my most important models on each imputed data set, and I will on the variation

between the five as I go along. In this way I am able to incorporate the uncertainty stemming from the imputation into my final results.

In brief, I present empirical results which arguably are inconsistent with Inglehart and Welzel's claim that liberal-democratic values help to create and sustain democracies. Utilizing variation over time the data indicates that the relationship is insignificant or maybe even negative when looking at the most authoritarian regimes, indicating a non-linear relationship.

As the aim of this thesis is to assess the magnitude and nature of the relationship between liberal-democratic values and democracy, my main concern when evaluating the results is the coefficient estimates for the values index. In addition to being concerned with their significance and magnitude, I am interested in evaluating if and how and they change between different estimation techniques and model specifications, and under what circumstances. This is, for the purpose of this study, more important than assessing the predictive performance of the full model and the effects of the other explanatory variables which only serve as control variables,

Before I present the results from the multivariate models I summarize patterns in the data based on descriptive statistics.

6.2 Descriptive statistics

I first consider statistics describing the pattern of covariance between the value index employed by Inglehart and Welzel and regime status as assigned by Freedom House. The value index is presented as quartiles, ranging from the lowest quartile where survival values dominate to the highest quartile where liberal-democratic values dominate.

Table 6. Freedom House status (%) of each quartile of values

	Freedom House status			
Values	Unfree	Partly free	Free	**N**
Survival values	35.2 (333)	41.5 (393)	23.3 (220)	100 (946)
2	31.7 (298)	26.0 (245)	42.3 (398)	100 (941)
3	24.7 (233)	23.2 (219)	52.2 (493)	100 (945)
Liberal-democratic values	6.2 (58)	8.4 (79)	85.5 (808)	100 (945)
Total	922	936	1919	2777

Absolute values in parenthesis. Freedom House status is lagged with 5 years. Freedom House status is assigned by following Freedom House score: Unfree:1 to 3.0, partly free 3.0 to 5.0 and free 5.0 to 7.0. Statistics are based on imputed dataset.

Table 6 reveals a pattern which seems compatible with the claim that there is a relationship between liberal-democratic values and level of democracy. 85.5 % of all countries where liberal-democratic values dominate are classified as free while only 6.2 % are classified as unfree. The probability of a regime being classified as free increases steadily as we move from societies where the majority of citizens emphasize survival values to societies where majority of citizens emphasize self-expression values. Meanwhile, the probability of being classified as unfree decreases steadily as we move from societies with survival values to societies with liberal-democratic values, from 35.2 % to 6.2 %.

At the same time, this table suggests that the relationship between values and democracy is strongest for the, relatively speaking, most democratic countries. When moving from societies with survival values to societies with liberal-democratic values the probability of being classified as free increases with 52 percentage points, but the probability of being classified as unfree decreases with only 29 percent. In a similar manner, the table suggests that the effect of values is stronger for the highest value quartiles. For instance, moving from the third values quartile to the fourth (the highest), the probability of a regime being free increases with

33.3 percentage points. Meanwhile, when moving from the second to the third quartile, the probability of being free increases with only 10 percentage points.

Next, I consider what the descriptive statistics reveal about institutional change. Table 7 describes how the probability of experiencing institutional change varies between societies with different value priorities. Institutional change is defined as a change of 1 point or more on the 7-point Freedom House scale, from the previous year.

Table 7. Regime change and values

Values index	Number of institutional changes	% change	N
Survival values	105	15.0	701
2	116	16.5	701
3	81	11.5	702
Liberal-democratic values	51	7.3	703
Total	353	12.6	2807

Absolute values in parenthesis. Freedom House status is lagged by 5 years. Institutional change is defined as a change of 1 point or more from the previous year on the 7-point Freedom House scale. Statistics is based on imputed dataset.

The statistics suggest that the probability of experiencing institutional change is higher for societies with self-expression values than for societies with survival values, although the tendency is weak. 15 % of all societies where the majority of citizens emphasize survival values experience institutional change, while for societies with liberal-democratic values change took place among 7.3 %. That is, the societies in the top value quartile are also the most stable. I bear in mind that previous studies have demonstrated a positive connection between income level and political stability (see Kennedy 2010). At the same I have already showed that self-expression values are affected by income level (see e.g. Inglehart and Welzel 2005; 2007). This means that I cannot exclude that the slight tendency towards more stability is due to higher income levels rather than more liberal-democratic values. I will address this in my multivariate analysis.

When institutional change takes place, it has been shown that income increases the probability of this change being towards democracy (see Kennedy 2010). I have hypothesized that liberal–democratic values may have a similar effect. Table 8 shows how the direction of an institutional change varies between different levels of liberal-democratic values.

Table 8. Direction of institutional change (%), of each quartile of values

Values	Change towards democracy (%)	Change towards autocracy (%)	Total institutional change	N
Survival values	75.2 (79)	24.8 (26)	100 (105)	701
2	75.9 (88)	22.4 (28)	100 (116)	701
3	76.5 (62)	23.2 (19)	100 (81)	702
Liberal-democratic values	82.4 (42)	14.5 (9)	100 (51)	703
Total	76.8 (271)	23.2 (82)	100 (353)	

Absolute values in parenthesis. Freedom House status is lagged with 5 years.

The table provides little support to the hypotheses that liberal-democratic values have a similar effect. Moving from the first to the second values quartile, and from the second to the third, the probability that an institutional change is towards democracy hardly changes at all. The same goes for institutional change towards autocracy. Hence, table 8 fails to provide support to the hypothesized effect of values on democracy. If Inglehart and Welzel are right in assuming a relationship between liberal-democratic values, we would except to see a much stronger pattern of covariance. There is, however, signs of an increase in the probability of democratization when moving from the third values quartile to the highest quartile, that is to societies where liberal-democratic values dominate. This increase is minor both in relative and absolute terms and may not even be significant, but seems to suggest a relationship between the two variables only at higher levels of liberal-democratic values, a tendency also suggested from table 6. Altogether the probability of change towards democracy is 7 percentage points higher in societies dominated by liberal-democratic values than in societies with survival values. The difference between the lowest and the highest quartile of values

when it comes to the probability of experiencing change towards autocracy is 10.4 percentage points.

In sum, the statistics suggest that there is a connection between values and democracy. It slightly points in the direction of a stabilizing effect of liberal-democratic institutions on regimes, but there are few indications of a relationship between liberal-democratic values and institutional change towards democracy. In the next section I consider evidence from multivariate analysis in order to test the potential effects more properly.

The advantage of multivariate analysis is that it allows us to control for variables which may affect both the independent and the dependent variable, thereby improving the extent to which we can draw causal inferences. That is, it may bring us closer to the ideal of a ceteris paribus condition where other factors which may affect the relationship we are studying are held constant .(Wooldridge 2009).

6.3 Mass attitudes and democracy level

In this section I deal with my first and most general hypothesis (H1), which claims a positive relationship between liberal values and democracy level. This hypothesis assumes that the relationship holds even when controlling for country-specific time-invariant factors (H2).
Before I present the findings, which make up the main contribution of this thesis, I briefly comment on the results from OLS regression on the non-imputed dataset. In line with Inglehart and Welzel (2005) I here utilize cross-sectional data where the independent variables are drawn from early 1990s and democracy is measured at the end of the 1990s or early 2000s.[37] In models 1-3 I use the same values index and similar control variables to Inglehart and Welzel (2005), implying that these models can be understood as replications of their models.

[37] What Inglehart and Welzel (2005) refers to as values in the "early 1990s" is values measured in either the third wave of the World Values Survey, or for those countries which did not participate in the third wave, values measured at the beginning of the fourth wave of the survey. This means that in practice they draw values from the years 1990-1998. In order to allow for replication of their results I use the exact same sample. When it comes to Freedom House they do not report exactly at what years the observations are drawn from when, but they refer to democracy in the late 1990s or early 2000s. I choose to operate with Freedom House lagged with 8 years compared to the values observations, which means that observations for Freedom House are drawn from the years between 1998 and 2006.

Table 9. Freedom House in late 90s/ early 00s. Unimputed dataset.

	1: OLS	2: OLS	3: OLS	4: OLS	5: OLS
Values index (early 90s)	8.223***	5.120*	5.090*	-0.453	1.113
	(1.263)	(1.922)	(2.178)	(1.935)	(2.301)
Freedom House (early 90s)		0.652***	0.633***	0.386**	0.413**
		(0.115)	(0.121)	(0.128)	(0.126)
Resource index (late 80s)		-0.0236	-0.0144		
		(0.0124)	(0.0132)		
GDP (log) (early 90s)				0.470*	0.471*
				(0.193)	(0.194)
School enrollment (early 90s)			0.00118		-0.00124
			(0.00249)		(0.00252)
Military spending (late 80s)			0.0000997		0.00000416
			(0.0000115)		(0.0000102)
Export (early 90s)			-1.30e-08		-1.77e-08
			(4.73e-08)		(4.45e-08)
Africa			1.533		Ref.cat.
			(0.822)		
Asia-Pacific			0.0891		-1.223
			(0.542)		(0.618)
C & E Europe			0.931		-0.406
			(0.596)		(0.567)
Middle East			-0.358		-2.079*
			(0.989)		(0.913)
North America			Ref cat.		-1.648*
					(0.773)
South America			0.183		-1.265
			(0.569)		(0.648)
Scandinavia			0.100		-1.468*
			(0.611)		(0.716)
Western Europe			0.0606		-1.478*
			(0.500)		(0.689)
Protestant majority			-0.177		-0.0637
			(0.429)		(0.404)
Muslim majority			-0.895*		-0.842*
			(0.406)		(0.382)
Constant	2.148***	0.359	-0.113	-0.109	0.222
	(0.565)	(0.758)	(1.117)	(0.803)	(1.041)
Observations	**60**	**60**	**54**	**60**	**54**
r2	**0.422**	**0.632**	**0.800**	**0.646**	**0.822**

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Based on unimputed cross-sectional data where all explanatory variables are measured in the early1980s and the dependent variable democracy is measured in the late 1990s or early 2000s.

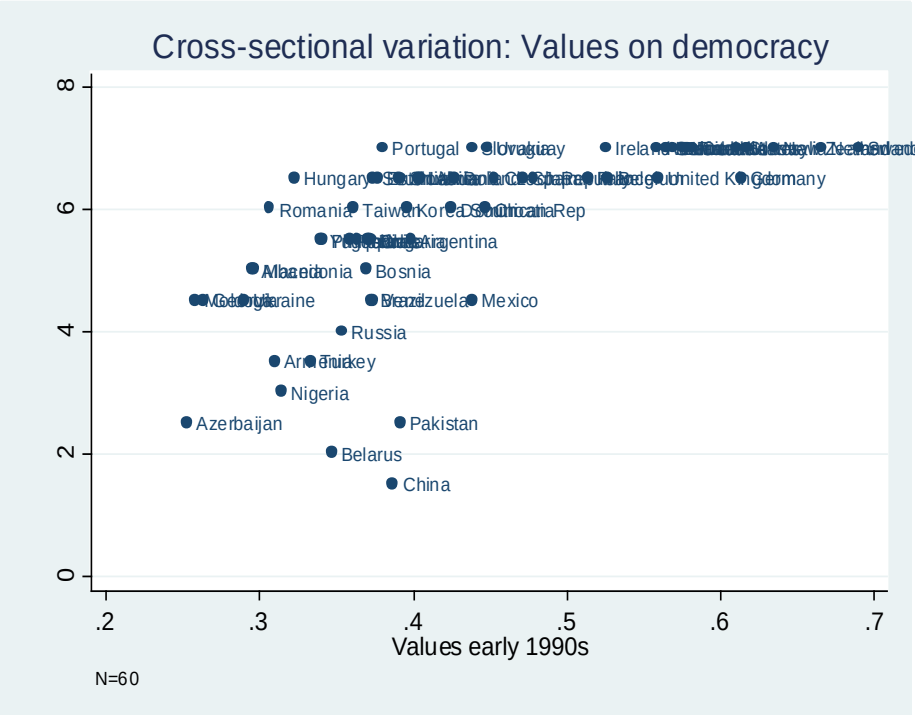
Model 1 shows that the bivariate effect of liberal-democratic values on democracy is positive and significant at the 0.001-level. Moving from societies where citizens emphasize authoritarian values to societies where people are liberal-oriented, the model predicts an increase in the Freedom House index of 8.223 points. This result is "non-sensical" however, as we cannot speak of an increase of 8.223 on a 7-point scale, and should be ascribed to the fact that a linear model may be problematic when the dependent variable is limited.[38] In model 2 I control for lagged Freedom House as well as the power resource index of Vanhanen (2000), as this was done by Inglehart and Welzel (2005). The coefficient estimate of values shrinks clearly when controlling for these variables, but is still significant although only at the 0.05 level. This does not change substantially when adding more control variables. In model 4 and 5 I have used GDP per capita as control variable rather than Vanhanen's resource index.[39] When controlling for GDP per capita and lagged Freedom House the coefficient estimate for values is negative and no longer significant in model 4, and when adding more control variables in model 5 the effect of values on democracy is insignificant and positive. What this suggests is that relatively strong relationship between values and democracy found in model 1-3 may be due to the fact that rich societies are likely to be both democratic and have liberal-oriented citizens. In any case, these preliminary tests indicate that Inglehart and Welzel's results and conclusions are less robust than we would expect. But, as these results are based solely on cross-sectional variation these inferences are only preliminary, and also because this data leaves me with a very low number of observations – only 54 in the most extensive models. This implies that the coefficient estimates may not pick up an effect which is really there - another consideration adding to the list of reasons for why imputation is justified.

Figure 3 illustrates the co-variation between liberal-democratic values and democracy which Inglehart and Welzel base their conclusions on. Again this is cross-sectional data where the observations for values are drawn from the early 1990s and democracy is observed in the late 1990s or early 2000s. The plot indicates a clear positive relationship between liberal-democratic values in the early 1990s and democracy in the late 1990s or early 2000s.

[38] Further research should involve analysing this model using for instance ordinal logit estimation, to mitigate the potential problems arising from the fact that Freedom House technically is at ordinal level.

[39] Although Inglehart and Welzel (2005) uses Vanhanen's power resource index, I argued in chapter 5 that GDP per capita should be controlled for when assessing the effect of values on democracy . This has been proposed by Inglehart and Welzel (x), who also have showed empirically that the effect of values on democracy remains when controlling for GDP.

Figure 3. Replicating Inglehart and Welzel (2005)



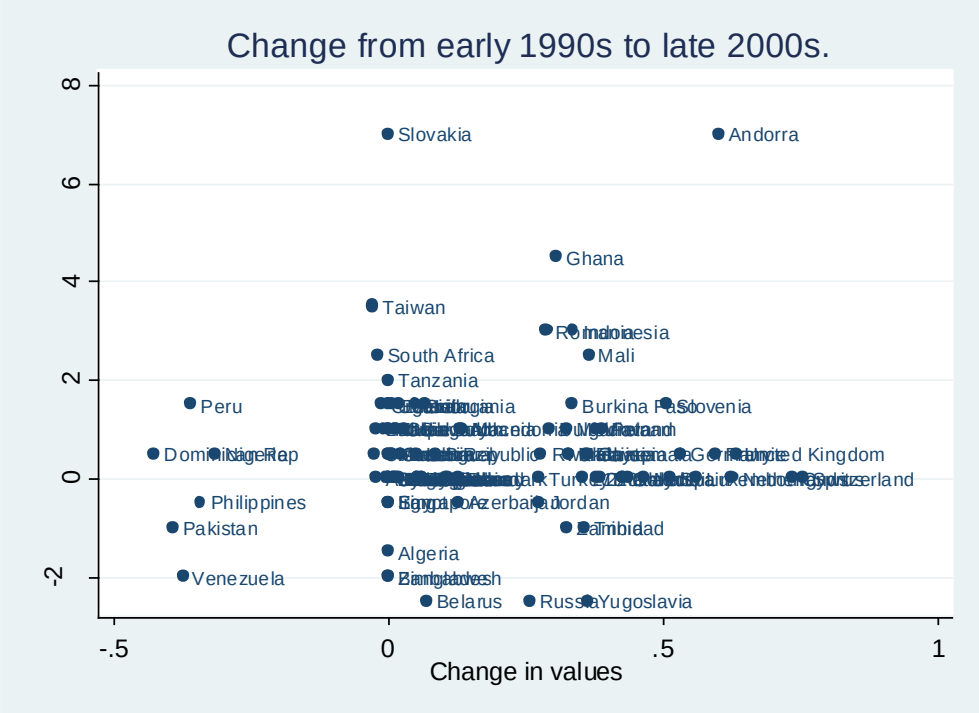
Using the same dataset I plot the change in Freedom House for each country between 1991and 2008 against the change in liberal-democratic values. As I only utilize two observations over time this figure does of course not capture the full variation in these variables within the time period but it says something about the direction of change (see Acemoglu et al 2008), and is the best way of saying something about variation over time without relying on imputed data. [40] Another advantage of Figure 4 is that as it only utilizes two data points over time it does not rely so heavily on imputed values.

Figure 4 shows that the relationship between liberal-democratic values and democracy seems very weak or close to non-existent when looking at change from early 1990s to the late 2000s. The countries in Figure 4 seem to be relatively randomly distributed along the x-axis, and we see examples of countries which experienced larger or smaller changes towards democracy without experiencing changes in values (such as Slovakia and Peru), or countries who experienced changes towards more liberal-democratic values without experiencing regime change (such as Jordan). Moreover, it seems unlikely that this lack of pattern is due to the fact a large portion of countries experienced no change in values or no change in democracy throughout these years. As I discussed in chapter 5, making inferences regarding the

[40] The fact that it illustrates the long-term change makes it sound to the objection that theories of mass values are interested in the effects of robust long-term changes rather than short-term fluctuations which can take place in both directions (see Inglehart and Welzel 2005: 42)

relationship between values and democracy solely on the basis of cross-sectional inferences is a rather negligent enterprise. Hence, one of the contributions of this thesis is to utilize the variation over time in order to draw more appropriate conclusions.

Figure 4. Change in democracy and change in liberal-democratic values.



I now move on to discuss the findings from cross-sectional time-series data (the imputed data). In Table 10 I present the results from five models with Freedom House as dependent variable. All independent and control variables are lagged by five years in accordance with the model of Inglehart and Welzel (2005) and in line with the theoretical assumed relationship between values and democracy.[41]

The first three models are versions of my baseline model, using the conventional OLS estimator and similar model specification to Inglehart and Welzel (2005).[42] The first model

[41] Inglehart and Welzel (2005: 181-183) operates with observations from two different points in time: They look at the effect of values in the early 1990s on democracy in the late 1990s. In order to allow for comparison with their results I operate with independent variables which are lagged with five years, and in chapter 8 I run my models with 10-year lags as a robustness test. This is line with the theoretical assumption that it takes at least a few years for values to be converted into collective action and subsequently institutional change.

[42] The 7-point Freedom Hosue index is at ordinal measurement level (it gives information about rank but not about distance), which means that technically it would be suitable with ordinal logistic regression. However, in line with Inglehart and Welzel I run linear regression as approximate, assuming that the Freedom House index has interval characteristics by virtue of representing and underlying dimension, degree of democracy.

explains Freedom House in terms of the values index only, the second control for lagged Results: OLS regression of Freedom House index.

	1: OLS	2: OLS	3: OLS	4: Fixed effects OLS	5: Arellano-Bond GMM
Values index $_{t-5}$	10.58***	0.573*	1.301***	-1.514*	-1.031**
	(0.332)	(0.289)	(0.377)	(0.594)	(-3.25)
Freedom House $_{t-5}$		0.703***	0.681***	0.384***	
		(0.0133)	(0.0145)	(0.0199)	
GDP(log) $_{t-5}$		0.167***	0.0750*	0.0390	0.191***
		(0.0216)	(0.0305)	(0.0742)	(0.0514)
School enrollment $_{t-5}$			0.00870***	0.0222***	-0.00427*
			(0.00167)	(0.00305)	(-2.32)
Ethnic Fractionalization $_{t-5}$			0.0396	-0.236	-0.00959
			(0.0665)	(0.136)	(0.0418)
Military spending $_{t-5}$			- 0.00000857***	-0.00000540**	-0.00000197
			(0.00000114)	(0.00000195)	(0.00000110)
Export $_{t-5}$			0.000000306*	0.000000945***	0.000000514***
			(0.000000121)	(0.00000019)	(0.000000109)
Protestant majority $_{t-5}$			-0.0326	0.630***	0.104
			(0.0558)	(0.177)	(0.0626)
Muslim majority $_{t-5}$			-0.259***	0.0929	-0.453***
			(0.0571)	(0.189)	(0.0616)
Demography $_{t-5}$					-0.0203***
					(-4.22)
Freedom House $_{t-1}$					0.826***
					(71.89)
Constant	0.588***	0.129	0.138	1.729***	-0.138

	(0.142)	(0.106)	(0.162)	(0.511)	(0.359)
Observations	2326	2326	2326	2326	2614
r2	0.304	0.767	0.780	0.287	

Standard errors in parentheses
$p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$
All independent and control variables are lagged with 5 years.
Values, GDP per capita, school enrollment, military spending and export are entered as endogenous variables in the Arellano-Bond model, while ethnic fractionalization, religion and demography are entered as exogenous.

democracy level and logged GDP per capita, the two variables which both theoretically and empirically are most important for present democracy level. The third model includes similar control variables to Inglehart and Welzel's full model (2005)[43]. Although Inglehart and Welzel (2005) uses Vanhanen's power resource index as control variable in their model, in the following I use GDP as an indicator of country's resources or income. I have argued above that it is theoretically plausible to assume that the effect of values on democracy should hold when controlling for GDP. Moreover, GDP per capita is definitely the most common indicator used as control variable in the democratization literature, while Vanhanen's index is used by few others than Inglehart and Welzel. Another reason for choosing this indicator rather than the Vanhanen power resource index is the small number of observations over time on Vanhanen's index (it is only measured every ten years while GDP is measured annually). Thus, less uncertainty is added to the time-series cross-sectional analysis when using GDP per capita.

In the fourth model I include the same variables as in model 3, but now I control for country-specific time-invariant variables. As discussed in the chapter on estimation techniques, each cross-section is assigned a specific intercept which is treated as a fixed unknown parameter. This means that the results only utilize variation over time, and this should be reflected in the interpretation of these results. In model 5 the results are estimated using the Arellano-Bond estimator which aims to mitigate the possibility of endogeneity.

However, in order for this estimator to actually deal with endogeneity the exclusion restriction on the instruments needs to hold. In other words, the lagged levels of the independent variables that are used as instruments should not have an independent direct effect on the

[43] Inglehart and Welzel (2005) also include dummy variables for region, but in order to keep the model more simple I leave out these variables from the models presented in table x, as they do not affect the results substantially. The full model with region dummies is listed in the appendix (see table x).

dependent variable when all the independent variables in the model are controlled for. This can be tested using the Sargan test, which null hypothesis is that the exclusion restriction is valid. Low p-values on this test may thus indicate that the exclusion restriction is problematic. However, a low p-value on the Sargan test may also come from heteroskedasticity in the data, and rejection on the Sargan test does thus not necessarily indicate that endogeneity is a problem. The coefficients from this model should be interpreted as the effect of change in values on change in democracy.

The results from model 1-3 support the results of Inglehart and Welzel (2005). In line with their conclusions I find in model 1 that liberal-democratic values have a positive effect on democracy significant at the 0.001-level in the bivariate model: When moving from traditional-oriented societies to societies where citizens hold liberal-democratic aspirations the Freedom House index increases with 10.58 points. This is similar to the result from the cross-sectional non-imputed dataset although the size of the coefficient is now even larger. As opposed to the cross-sectional data however, this effect remains positive and significant when controlling for logged GDP and previous democracy level in model 2, and controlling for a number of relevant control variables in model 3, although the size of the coefficient shrinks sizably. Looking at the five imputed datasets this coefficient estimate is positive significant in three out of five datasets and positive insignificant in to out of five (see table 22 in appendix). This means that the imputation procedure actually works in favor of the theory of Inglehart and Welzel (2005), and that inferences based on the sample they have used may be prone to a selection bias that pushes the estimated effect of liberal values on democracy downwards. The third model shows that the expected level of the Freedom House index increases with 1.3 when we move from survival values to liberal-democratic values (that is, from the lowest level of the values index to the highest). Bearing in mind that the Freedom House index is a seven-point scale the effect is not striking, but it is certainly noticeable. In line with Inglehart and Welzel models 2 to 3 show that in particular logged GDP, lagged levels of democracy and education have significant effects on democracy level. Also as expected from previous literature, both military spending and Muslim majority have negative significant effects.

In other words, when looking at the variation both between countries and over time there is a significant positive relationship between values and democracy. However, we do not know whether this result is due to the variation between countries or the variation over time. If it is due to the variation between countries, all we can claim, when putting stringent requirements on inference, is that some countries have high levels of democracy and citizens holding

liberal-democratic values, while other countries are more authoritarian and citizens less democratic-oriented. High levels of democracy and liberal-democratic aspirations tend to go together, but we do not know if they vary together over time within countries. If democracy is indeed caused by liberal values in the population, one should also expect that they would co-vary over time in given countries.

Model 4 shows that when controlling for country-specific time-invariant variables the positive effect of liberal-democratic values disappear. In fact, the coefficient of the values index surprisingly becomes negative and significant. The model's estimate shows that the expected level of the Freedom House index decreases with 1.5 points when we move from survival values to liberal-democratic values, controlling for country-specific time-invariant factors which are a not result of liberal-democratic values. However, when applying this model to all five imputed dataset, the coefficient varies between positive insignificant and negative significant (see Table 23 in appendix). This implies that I cannot conclude on whether the effect of liberal values on level of democracy really is negative or whether there is no effect. What these results do, however, is to cast serious doubt on the hypothesis that the relationship is positive and significant, that liberal-democratic values increase the probability of high levels of democracy. This result suggests that the positive correlation between liberal values may be due to omitted variables. In particular, country-specific factors that correlate systematically with both values and regime type. Hence, this result supports the argument, based on the analogous argument in Acemoglu et al (2008), depicting that underlying contextual variables have had a crucial impact on both people's intrinsic ideals and the accountability of government: Perhaps some societies embarked on a path where people gradually acquired liberal-democratic values and political institutions became transparent and accountable while others embarked on a path of repressive forms of government and citizens valuing authority and tradition, for example because of deeper underlying cultural traits, or because of more structural economic and social factors and processes.

In line with Acemoglu et al (2008) the effect of logged GDP also disappears in a fixed effects model explaining democracy, but in contrast to Acemoglu et al (2005) the effect of education on democracy remains highly significant.[44]

[44] This difference may have to do with choice of indicators for education: While Acemoglu t al (2005) use average years of schooling in the total population of age 25 and above, my chosen indicator measures enrollment in primary and secondary school, as share of total number of citizens in school-age.

Even though country-fixed effects are controlled for, the results in Table 8 may be biased if there is an effect of regime type on values, as indicated for example by the hypothesis that citizens in democracies learn democratic values while living under democracy (see Muller and Seligson 1994; Rustow 1970). The Arellano-Bond estimator in model 5 aim to take endogeneity into account, and the extent to which it succeeds is measured by the Sargan test. The p-value from the Sargan test in this case is lower than 0.05 which indicates that the exclusion restriction is not satisfied, although this could also be due to heteroskedasticity (see e.g. Arellano and Bond, 1991). In this case the Arellano-Bond estimator cannot guarantee that endogeneity problems are solved, but at least I have made an effort to cope with this problem.[45] When using the Arellano-Bond estimator in model 5 the effect of values remains significant (now at the 0.001 level) and becomes even more sizably negative. The fact the coefficient estimate changes suggests that there may be endogeneity in this relationship. Across my five imputed datasets this relationship is either insignificant or negative significant (see table 24 in the appendix). This means that when I am taking into account the uncertainty of my data I can infer that the effect of values on democracy is either insignificant or negative significant.

The fact that models 4 and 5 produce significant coefficients for the values index should mitigate the concern raised in chapter 5 that the fixed effects model removes variation in the right-hand side equation, which is necessary to obtain precise estimations. In fact, the standard errors of the values coefficient from model 5 (0.337) are lower than the standard errors from OLS estimation in model 3 (0.377). The standard errors from the values coefficient from the OLS fixed effects estimator in model 4 are slightly higher (0.594), but as I have shown the coefficient becomes significant at the 0.05 level.

In sum, the results challenge the conclusions of Inglehart and Welzel claiming a positive significant relationship between self-expression values and democracy. The results indicate that country-specific omitted variable bias may be one crucial factor driving their results, and although this is far from certain based on the model specifications above, it could be speculated that the endogeneity of values to democratic institutions may also bias their results.

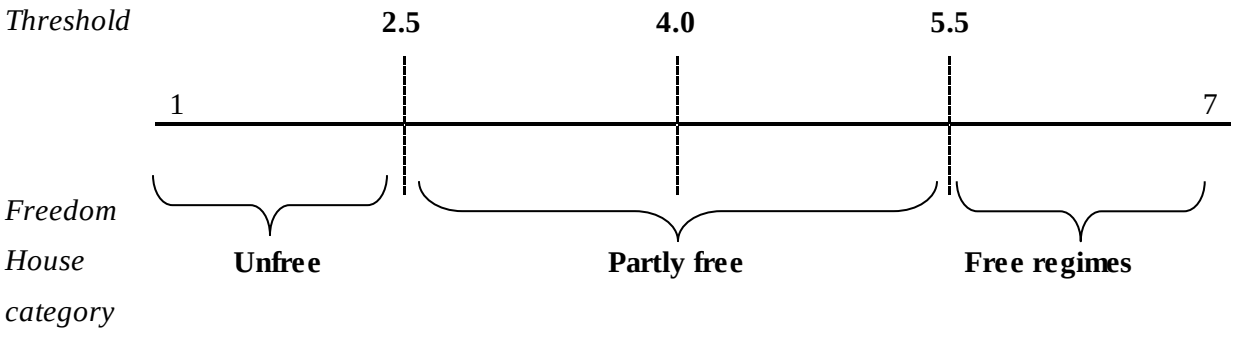
[45] This could be further investigated by running even more complex dynamic panel data models, for example a two-step Arellano-Bond model, and I hope to do so, or that other will, in future research.

6.4 Mass attitudes and democratic transitions and survival

In order to probe deeper into the relationship between cultural traits and democracy I use a dynamic probit model. This model can distinguish between transitions to democracy and the stability of already democratic regimes. In this sense it is a model that can tell us more about the nature of the relationship between values and democracy. If the relationship between self-expression values and democracy really is negative, what is the connection?

To estimate a dynamic probit model I operate with a dichotomous version of Freedom House where the value 0 equals non-democracy and 1 equals democracy.[46] As has been argued in the literature the cut-off point in a dichotomous measure is arbitrary and therefore possibly critique-worthy (see Cheibub, Gandhi and Vreeland 2010; Bogaards 2011; Hegre et al 2012). I therefore present the results for three different democracy thresholds. The lowest is set at Freedom House score 2.5, meaning that all regimes which Freedom House classify as partly free or free are seen as democratic. The second is set at 4, and the highest is set at Freedom House score 5.5 meaning that only regimes classified as free by Freedom House are considered democratic. These thresholds are illustrated below:

Figure 5. Three different thresholds on the Freedom House scale.



[46] These models are estimated using standard errors clustered on country, aiming to mitigate problems of heteroskedasticity and autocorrelation (see Beck and Katz 2001; Rabe-Hesketh and Skronset 2008). I have already discussed why these problems may arise in my analysis, and the fact that the fixed effects models altered the results so dramatically when analyzing democracy level suggests that it is more suitable to take these potential threats into account.

For each democracy threshold I present a simple model with logged GDP and previous democracy status as the only control variables and a more complex model with school enrollment, Muslim majority, the Gini coefficient and oil dependency as additional control variables. The coefficient estimates are presented in table 11. All explanatory variables are lagged with one year. As discussed in chapter 5, I remind that each lagged independent variable can be interpreted as the effect of this variable on the probability of transition from autocracy to democracy. The interaction terms, meanwhile, can be interpreted as the effect of each variable (interacted with lagged Freedom House) on the probability of a democracy surviving from one year to the next. Hence, the coefficient of the values index in the second row in Table 9 should be interpreted as the effect of liberal-democratic values on transition from non-democracy to democracy (the coefficient gives us the probability of democracy, 1, at t, given autocracy, 0, at t-1). Table 11 shows how this coefficient varies depending on where we set the threshold for democracy. The coefficient of the interaction term between Freedom House and values in the third row should be interpreted as the effect of liberal-democratic values on democracy surviving from one year to the next (this coefficient represents the probability of democracy, 1, at t given democracy, 1, at t-1).

Table 10. Results: Dynamic probit regression of dichotomized Freedom House (FH). Three different democracy thresholds.

	1: Freedom House (low)	2: Freedom House (low)	3: Freedom House (medium)	4: Freedom House (medium)	5: Freedom House (high)	6: Freedom House (high)
Freedom House $_{t-1}$	0.775	0.983	1.687*	1.851**	2.759***	2.686**
	(0.553)	(0.616)	(0.676)	(0.692)	(0.769)	(0.841)
Values index $_{t-1}$	-4.822**	-5.562**	-1.476	-1.737	1.616	1.253
(when Y at t-1 = 0)	(1.821)	(2.121)	(1.294)	(1.287)	(1.107)	(1.081)
FH*values $_{t-1}$	4.600	4.190	3.088*	3.293*	-0.367	0.725
(when Y at t-1 = 1)	(2.429)	(2.941)	(1.483)	(1.502)	(1.535)	(1.590)
GDP (log) $_{t-1}$	0.0510	0.262	0.171**	0.163	0.216**	0.203
	(0.0945)	(0.166)	(0.0579)	(0.113)	(0.0769)	(0.114)
School enrollment $_{t-1}$		-0.00740		0.00267		0.00186
		(0.00787)		(0.00529)		(0.00704)
Muslim $_{t-1}$		0.00998		-0.207		-0.511*
		(0.200)		(0.148)		(0.240)
Gini $_{t-1}$		-0.00391		0.00460		0.00244
		(0.00841)		(0.00577)		(0.00430)
Oil $_{t-1}$		-0.0250***		-0.0187*		-0.0218**
		(0.00474)		(0.00750)		(0.00749)
FH*GDP $_{t-1}$	0.0806	-0.0342	-0.0288	-0.0235	-0.000424	-0.0959
	(0.134)	(0.214)	(0.0867)	(0.136)	(0.111)	(0.165)
FH*school $_{t-1}$		-0.000944		-0.00487		0.00391
		(0.00843)		(0.00686)		(0.00989)
FH*Muslim $_{t-1}$		-0.233		-0.0582		0.283
		(0.307)		(0.215)		(0.381)
Constant	0.334	-0.0238	-1.894**	-1.918**	-3.710***	-3.500***
	(0.455)	(0.703)	(0.581)	(0.617)	(0.646)	(0.700)
Observations	2809	2808	2809	2808	2809	2808
Pseudo R2	0.665	0.676	0.622	0.629	0.679	0.688
ll	-364.9	-352.3	-664.5	-651.0	-624.8	-607.3
ll_0	-1088.8	-1086.8	-1757.2	-1756.0	-1946.8	-1946.1

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.00$.
All independent and control variables are lagged by one year. Freedom House (FH) is dichotomized using three different thresholds: Low: 1 equals FH > 2.5, medium: 1equals FH > 4, high: 1equals FH < 5.5.
All models are estimated using standard errors clustered on country.

Looking at the lowest democracy threshold, Model 1 shows that a change from non-survival values to liberal-democratic values decreases the probability of a regime moving from autocracy to democracy, an estimate which is significant at the 0.01 level. The estimate remains negative and significant at the 0.001 level when adding the control variables in Model 2, and remains clearly negative significant across every imputed dataset (see table 25 in the appendix). This democracy threshold implies that we are looking at transitions from FHI score below 2.5 to FHI score of 2.5 or above, that is from unfree regimes to partly free or free regimes. In practice, hardly any regimes go through regime change all the way from unfree to free regimes, implying that this coefficient can be interpreted as the effect of values on unfree to partly free regimes[47]. Among the other explanatory variables the only one which has a significant effect on democratization is Muslim majority. Moving from countries without Muslim majority to countries *with* Muslim majority, the probability of democratization decreases significantly. At the same time, there is no significant effect of values on survival of democracy. This can be interpreted to mean that values do not sustain partly free regimes.

Putting the threshold for democracy slightly higher, the effect of liberal-democratic values on change towards democracy vanishes in Model 3 and 4. The medium threshold implies that we are looking at transitions from FHI score below 4 to a score of 4 or higher. In practice this can be interpreted as the effect of values on change from the "least democratic" partly free to the "most democratic" partly free regimes (see Figure 5). The coefficient estimate is negative but no longer significant, implying that when looking at regime change towards the upper level of the partly free regimes, liberal-democratic values do not seem to have an effect on transition. Looking at the five imputed datasets this coefficient estimate is insignificant in four out of five datasets, and negative significant in one of the datasets (see Table 26 in the appendix).

At the same time, liberal-democratic values have a positive effect at the 0.05 level on the sustainability of democracies defined as regimes with FHI score 4 or higher. Moving from survival values to liberal-democratic values, the probability of such a regime surviving increases significantly. Muslim majority still has a positive significant effect on regime change towards democracy. Logged GDP has a positive significant effect in model 3, but this effect vanishes when adding control variables such as education and Muslim majority.

[47] The interpretation of this estimate could be further investigated using multinomial logistic regression. This however may create problems when it comes to degree of freedoms, and is considered to be a topic for future research.

Finally, when putting the threshold of democracy at 5.5, equal to being classified as free by Freedom House, the effect of liberal-democratic values on democratic transitions changes direction from negative to positive as opposed to the previous model, but remains insignificant both in Model 5 and when adding additional control variables in Model 6. This indicates that the emergence of fully democratic countries cannot be explained by change in liberal-democratic values. Looking at the five imputed datasets, the coefficient estimate for liberal-democratic values on democratization varies between positive insignificant and positive significant (see table 27 in the appendix)[48]. Moreover, liberal-democratic values do not have a significant effect on democratic survival when democracy requires an FHI score of at least 5.5. As in the previous models Muslim majority has a negative significant effect on the probability of change towards democracy. Surprisingly, logged GDP has a positive significant effect on the probability of change towards full democracy, but no significant effect on the probability of democratic survival (as opposed to the results in e.g. Przeworski and Limongi 1997).

As coefficient estimates from probit regression are difficult to interpret (see King, Tomz and Wittenber 2000), I calculate the change in probability of democracy when my independent variable liberal-democratic values increase from its mean value to its maximum value, using the CLARIFY software (King, Tomz and Wittenberg 2000). The results are summarized in table 12 which shows the change in probability of democracy using the three different democracy thresholds. Below I comment briefly on the significant results.

[48] Two out of five datasets gives positive and significant coefficient estimates for the effect of values on democracy. Hence, we can not exclude that liberal-democratic values have a posiive effect of regime democratization at the highest levels of democracy. This is one of very few indications that there may be some conditional support in favor of Inglehart and Welzel's theory, but as three out of five datasets give insignificant coefficient estimates (in addition to the average data set) it seems more likely that there is no such effect.

Table 11. Change in probability when values index increases from its mean to maximum value

Democracy threshold	Change in probability of democratization	Change in probability of democratic survival
Freedom House(low)	-.4599547 ***	.0291647
Freedom House (medium)	-.2279442	.1835523*
Freedom House (high)	.1078819	.0998497

Probabilities were computed using CLARIFY (King, Tomz and Wittenberg 2000). Change in probability of democratization and democratic survival when the independent variable, values, is increased from its mean to its maximum value while all other independent variables are kept at their means.

When it comes to change in the probability of institutional change from autocracy to democracy when the threshold for democracy is set at FHI score 2.5 or higher, table 12 shows that an increase in liberal-democratic values from its mean value to its maximum value decreases the probability of regime change by 46 %, when all other variables are held at their means. This is a considerable magnitude given that the coefficient estimate was found to be significant at the 0.001 level, and provides a challenge to the conclusions of Inglehart and Welzel. At the same time, an increase in liberal-democratic values from its mean value to its maximum value increases the probability of survival from one year to the next for a democracy defined as a regime with at least FHI score of 4, that is a relatively democratic semi-democracy, when all other variables are held at their means. This is one of the very few pieces of evidence which is in line with the theoretical framework of Inglehart and Welzel.

Not only do my results show that the claimed positive relationship between liberal-democratic values and democracy mainly disappears when controlling for country-specific time-invariant factors. I found no support of a positive significant effect of values on democratization, and only weak support in favor of a sustainable effect on some partial democracies. Moreover, the effect of values on change from "unfree" to "partial free" on the Freedom House classification is negative significant and seems to have a substantial impact.

The finding that values may have a negative impact on democratization is surprising, and there is to my knowledge no explicit argument made in the literature proposing such a relationship. Liberal-democratic values are usually seen as an explanatory factor of democratization, an explanation of why democracies survive or consolidate or as a consequence of or a phenomenon associated with democratic institutions. I have already mentioned institutional learning theory, arguing that people living under democratic institutions will increasingly appreciate and internalize ideals such as freedom, tolerance and self-decision. Moreover, it follows from the arguments of proponents of historical approaches to democratization such as Acemoglu and Robinson (2006) that both liberal-democratic values and democracy are likely to be a result of underlying contextual legacies such as colonial experience or religion. Thus, there are plenty of arguments for why liberal-democratic values do not have a causal effect on democracy, but few arguments in favor of a negative effect of values.

At the same time, when considering the theoretical arguments I touched upon in chapter 3 there are many reasons why changes in mass attitudes and collective action can lead to unexpected and unforeseen outcomes in authoritarian settings. I argued that authoritarian leaders are able to mitigate potential uprisings and demands for freedom through restricting so-called strategic coordination goods – means which allow people to take part in activities aiming to destabilize the regime. More specific, in hypothesis 4a and 4b I proposed that the presence of repression and lack of free media reduces the effects of liberal-democratic values on democracy. Perhaps this argument can be expanded: It may be that the emergence of citizens demanding freedom and political change leads the dictator to carry out pre-emptive measures. Fearing the consequence of a more critical populace the regime increases repression in order to keep liberal leading figures and its potential supporters under control and restricts the freedom of the media in order to exclude critical voices and prevent the diffusion of such aspirations. Both increased repression and media restrictions will be reflected in a decline in the Freedom House index. As a result, if this argument holds liberal-democratic values may ironically lead to reduced democracy.

In order to get a clearer idea of what is really going on I add indicators of repression and freedom of the media to the dynamic probit model explaining transitions to and survival of democracy according to the lowest threshold (see table 13). This is a way of testing hypothesis 3b and 3c, proposing an interaction effect between repression and values as well as

between freedom of the media and values. In Model 2 I include the Physical Integrity Rights index as a lagged control variable explaining transitions to democracy to see if this affects the coefficient estimate of the values index, as well as an interaction term between the same index and Freedom House which explains the survival of democracy. As a high value on the Physical Integrity Rights index equals respect for human rights (and absence of repression), I expect this coefficient to have a positive effect on democratic transition. In Model 3 I add the Banks media scale as a lagged control variable explaining transitions to democracy, and as an interaction term to explain the survival of democracy. Finally, in Model 4 I add an interaction term between the values index and the Physical Integrity Rights index. This variable captures a potential conditional effect of repression on the effect of liberal-democratic values on democracy.

Table 12. Results. Dynamic probit with repression and freedom of the media.

	1	2	3	4
Freedom House	1.083	1.123	1.265	1.439*
	(0.654)	(0.673)	(0.725)	(0.686)
PHYSINT		-0.0198		
		(0.0359)		
PHYSINT*FHouse		0.140**		
		(0.0520)		
Banks media scale			-0.00321	
			(0.00967)	
Banks*FHouse			0.00677	
			(0.0110)	
PHYSINT*values				0.192**
				(0.0706)
Values	-5.194*	-5.106*	-5.108*	-6.199**
	(2.161)	(2.138)	(2.192)	(2.173)
GDP (log)	0.125	0.129	0.127	0.108
	(0.180)	(0.179)	(0.180)	(0.188)
School	-0.00439	-0.00462	-0.00416	-0.00327
	(0.00793)	(0.00781)	(0.00792)	(0.00857)
Muslim	-0.155	-0.168	-0.146	-0.111
	(0.218)	(0.216)	(0.219)	(0.224)
Population	-3.26e-10	-3.51e-10	-3.12e-10	-2.34e-10

	(5.64e-10)	(5.65e-10)	(5.71e-10)	(5.64e-10)
FreedomHouse*values	4.028	3.155	3.761	3.430
	(2.856)	(2.853)	(2.906)	(2.926)
FreedomHouse*GDP	0.117	0.0890	0.104	0.116
	(0.230)	(0.230)	(0.228)	(0.233)
FreedomHouse*school	-0.00542	-0.00728	-0.00608	-0.00790
	(0.00913)	(0.00922)	(0.00921)	(0.00949)
FreedomHouse*Muslim	-0.196	-0.197	-0.200	-0.262
	(0.328)	(0.324)	(0.327)	(0.317)
FreedomHouse*population	4.67e-10	9.58e-10	4.38e-10	6.19e-10
	(7.69e-10)	(8.24e-10)	(7.77e-10)	(7.86e-10)
Constant	0.352	0.388	0.307	0.491
	(0.515)	(0.523)	(0.574)	(0.519)
Observations	2809	2809	2809	2809
Pseudo R^2	0.671	0.676	0.672	0.674
ll	-357.2	-352.0	-357.0	-354.1
ll_0	-1086.9	-1086.9	-1086.9	-1086.9

Standard errors in parentheses
$p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$
Dependent variable is democracy, defined according the low threshold where democracy is a regime classified as either partly free or free by Freedom House.

Table 13 provides several interesting insights. First of all, it shows that when controlling for respect for human rights and press freedom (see model 2 and 3) the negative effect of values on democratization shrinks, although not sizably. Neither respect for human rights nor freedom of the media has an independent significant effect on democratization however, but the Physical Integrity Rights index has a positive significant effect on the survival of democracy. Reminding that we are looking at the lowest democracy threshold this may imply that when a partly free regime improves its compliance with human rights, the probability of surviving from one year to the next increases. Even more relevant for my investigation is the coefficient estimate for the interaction effect between values and the Physical Integrity Rights index, which is positive and significant at the 0.01 level. This means that the effect of liberal-democratic values on transitions from unfree to (at least) partly free regimes is conditioned upon the degree of repression. Specifically, the higher a regime respects human rights, the higher is the effect of liberal-democratic values on democratic change. This can be interpreted in favor of theoretical contributions which argue that a "political opening" of some sort if necessary for a successful opposition movement, and that liberal-democratic values are not

simply converted into democracy in authoritarian settings. It adds empirical support to the argument discussed in chapter 4 that authoritarian leaders through coercion may be able to circumvent the consequences of legitimacy deficit and popular discontent, at least in the short term.

In sum, the results from these models confirm the findings from the previous section indicating that the relationship between mass values and democracy is not as straightforward as claimed by Inglehart and Welzel (2005).

6.5 Summary

I started out this section with a replication of Inglehart and Welzel's model (2005) in which I reached similar results as they did: When using OLS models, I found a positive significant relationship between liberal-democratic values and democracy, although these results showed to be sensitive to minor changes in model specification also when using OLS. Nevertheless, the imputed data strengthened the positive association between liberal values and democracy, indicating a possible selection bias in the data used by Inglehart and Welzel, working against their hypothesis.

However, further analysis showed that there are at least three interesting patterns that are not accounted for by running Inglehart and Welzel's analysis. First, the positive significant relationship between liberal-democratic values and democracy disappears when controlling for country-specific time-invariant factors. This can be interpreted as indicating that the significant relationship between the two variables found in linear regression is due to omitted variable bias.

Second, there are few indices of a positive effect of liberal-democratic values on neither democratization nor democratic survival. I find absolutely nothing that indicates that liberal-democratic values generate institutional change towards democracy. Regarding democratic survival I find evidence indicating that values may promote the survival of regimes with Freedom House score 4 or higher, which can be interpreted as the survival of mainly regimes which are ranked as the "most democratic" of the partial free regimes.

Third, the results point in favor of a negative effect of liberal-democratic values on regime transitions from unfree to at least partly free. My estimates indicate that these values have a significant negative impact on democratization. Further analysis suggests that this surprising result may be due to authoritarian leaders carrying out "pre-emptive strikes" in the form of increased repression in response to discontent and demands for freedom.

7 Robustness tests

It is possible that the results that I presented in chapter 6 are influenced by arbitrary and theoretical irrelevant properties of the data and research design. If this is the case, the inferences I made regarding the relationship between liberal-democratic values and democracy cannot be trusted. If I am to consider the results robust they need to remain stable when exposed to small adjustments to the model specification, on idiosyncratic parts of the dataset or on influential cases or outliers. In this chapter I investigate characteristics of my models which may have influenced the results in a way which leads to false inferences.

I start by considering alternative observation samples. In the original analysis I have included observations from every year between 1981 and 2009 for every country which participated in the World Values Survey. In this chapter I consider a sample including all countries that existed throughout the entire time-series, and subsequently a sample where outliers and influential observations are excluded. Next, I consider alternative operationalizations of my key variables, both democracy and liberal-democratic values, before I consider alternative lag structures for the explanatory variables. Finally I address the issue of dependency: I consider whether the explanatory variables are dependent on each other, in other words whether there is a problem of multicollinearity, and finally whether there is dependency between the error terms.

7.1 Non-existent countries

The data set created by the multiple imputation process has observations for every country from 1981 to 2009, thus generating a balanced panel, which has certain beneficial aspects in terms of estimation and inference. In reality, however, not all countries of today have existed as independent countries throughout the entire period. The post-communist countries in Eastern and Central Europe did not exist until the disintegration of the Soviet Union, which means that the observations for these countries up until 1991 will represent countries which technically did not exist. In order to make sure that these "artificial" observations are not driving my results I run the models excluding all country-years which technically never existed. In practice I do this by running my model using an un-imputed variable for Freedom

House, which means that I remove country-years which never existed and all country-years with missing values on the Freedom House variable.[49] The country-years which are now excluded are primarily the post-communist countries before 1991 but also Germany before 1989 and Ethiopia up until 1993 when the country formally split into Ethiopia and Eritrea.

Excluding these observations does not alter the results considerably. The replication model using OLS regression still produces a positive and significant coefficient estimate for values on democracy (see Table a3 in the appendix), and the positive effect disappears when using fixed effects regression and the Arellano-Bond estimator. The coefficient estimates for liberal-democratic values in the latter models are still negative, but no longer significant. This means that the results cast doubt regarding the robustness of the negative effect of values found in the original analysis. Running the dynamic probit model this impression is strengthened (see table ax in the appendix). The negative effect of values when looking at the lowest democracy threshold is no longer significant.

In sum, these tests show that the finding point to a lack of positive effect of values on democracy still holds, but the findings which indicated a negative effect is less robust.

7.2 Outliers and influential cases

Outliers are observations which have an unexpectedly high or low value of Y given its predicted value based on the regression model's estimates. Such observations can be detected by looking at the standardized residuals, and I categorize outliers as observations with residuals greater than 3 or smaller than -3 (reference).[50] Influential observations on the other hand, are observations which greatly impact the results of a regression, for instance because they have extreme values on the independent variable. They can be detected by Cook's D in OLS regression, or by computing the dbeta statistics in probit regression. I categorize influential observations as observations with a Cook's D (or dbeta statistic) greater than 1 (see Menard 2010: 137).

[49] This means that I will also remove some country-years which technically did exist, but which there are no Freedom House data on. For instance, my dataset does not have data for Freedom House in 2009, which means these observations will be excluded from the analysis altogether. The number of missing values in Freedom House is relatively low however, implying that I avoid the worst forms of bias.

[50] Menard 2010: 135 suggests to categorize outliers as observations with residuals greater than 2 or smaller -2, but this is a liberal criteria in the sense that it would make me exclude a large number of observations. I therefore choose the stricter criteria mentioned above.

Looking at the models explaining democracy level; the number of influential observations according to this definition is 0, while the number of outliers are 10, primarily from the years 2005-2009. The fact that the outliers seem to be correlated with time suggests that my model does a poor job at explaining democracy in the final years of my time-series. I return to this problem when discussing non-independent observations as a robustness challenge.[51] In order to make sure that my results are not driven by these irregular observations I run my models without all observations which are categorized as outliers or influential observations according the definition above.

Table 24 (see appendix) shows that my main findings when it comes to level of democracy remain after having removed outliers and influential observations. The coefficient estimate of liberal-democratic values from OLS regression is still positive significant (see model 1). However, as opposed to the model which included outliers, the coefficient estimate for values when controlling for fixed effects in model 2 becomes insignificant and negative and the same thing happens when running the Arellano-Bond estimation without outliers in model 3. Hence, there is no longer any sign of a negative effect of liberal-democratic values on democracy level.

When it comes to the dynamic probit models which explain transitions to and survival of democracy, the effect of liberal-democratic values on institutional change from unfree to partly free regimes remains negative significant when removing the outliers (see table 25 in the appendix). The results are also relatively similar to the results from original model when looking at both transition and survival of democracy according to the medium and high threshold. The effect of values on transition to democracy is still negative and insignificant when looking at the medium threshold, and positive and insignificant when looking at the highest threshold. Meanwhile, the effect of values on the survival of democracy at the medium threshold is still positive and significant.

When it comes to the dynamic probit models which explain transitions to and survival of democracy, the are the effect of liberal-democratic values on institutional change from unfree to partly free regimes remains negative significant (see table 25 in the appendix), and the

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results are also relatively similar to the results from original model when looking at both transition and survival of democracy according to the medium and high threshold. The effect of values on transition to democracy is still negative and insignificant when looking at the medium threshold, and positive and insignificant when looking at the highest threshold. Meanwhile, the effect of values on the survival of democracy at the medium threshold is still positive and significant.

In sum, the main findings from the original dynamic probit model are very robust to excluding outliers and influential observations.

7.3 Alternative operationalizations of democracy

A robust result should not disappear if one changes the operationalization of the variables it depends on in subtle but theoretically irrelevant ways. Throughout the analysis I operated with the Freedom House index as the indicator of democracy. Although this indicator offers the most valid operationalization of my preferred understanding of democracy, I want to exclude the possibility that some curious characteristic of the Freedom House index explains my results (see Munck and Verkuilen 2002). For instance, as argued in Chapter 2, the Freedom House index is a broad indicator capturing many aspects of democracy including freedom of the press and the protection of private property. It could be that the reported insignificant or sometimes negative effect could be due to only some of these components. I therefore run the models using the Polity Combined Democracy score which is a more narrow indicator concentrating on the presence or absence of formal democratic institutions. The results are listed in Table 21 (see appendix).

Running OLS regression with Polity as dependent variable to replicate Inglehart and Welzel (2005) gives similar estimates as when using Freedom House, although coefficient estimate of values becomes insignificant, although still positively signed, in Model 2 where the only other control variables are logged GDP and lagged democracy. Yet, when adding several control variables in Model 3 the effect of values on Polity is clearly positive and significant (see Model 3). However, when adding fixed effects the coefficient estimate turns negative and insignificant (see Model 4). In the Freedom House analysis this coefficient was often significant with the same direction (negative), although this result varied between different

imputed datasets. In the Arellano-Bond model the coefficient estimate of values is still negative significant (see model 5), as in the models using the Freedom House index.

Overall then, using Polity's democracy score as the indicator of democracy does not alter my results substantially. The conclusion is still that the effect of liberal-democratic values becomes insignificant or negative when controlling for country-specific time-invariant variables (and for some models taking into account that values may be endogenous to regime type). In other words, my dependent variable is fairly robust to alternative operationalizations of democracy.

7.4 Alternative operationalization of liberal-democratic values

Throughout my analysis I have operationalized liberal-democratic values using the values index utilized by Inglehart and Welzel (2005). This has allowed me to make meaningful comparisons with the results of Inglehart and Welzel, but, as I noted in chapter 5, this index is only made up of four indicators. For the sake of the validity and reliability of this index it would have been preferable with an index containing more indicators, and this is also pointed out by Inglehart and Welzel (2005). In the methodological chapter I presented an alternative index made up of 15 indicators representing four theoretically justified dimensions which according to factor analysis tap one underlying concept. I run my models using this alternative index in order to exclude the possibility that my results are driven by validity or reliability problems in the simpler index. The results are presented in Table 19 (see appendix).

When explaining level of democracy, the results from the replication models using OLS regression remain similar to the results from the more narrow values index However, when adding fixed effects and Arellano-Bond GMM the coefficient estimates for liberal-democratic are no longer negative significant. This suggests that the negative effect of liberal-democratic, which I found in my original model, *may* have been influenced by potential bias in the more narrow index of values used by Inglehart and Welzel (e.g. 2005).

When looking at institutional change from unfree regimes to partly free regimes using the dynamic probit model, the effect of the extended values index is similar to the coefficient

estimate for the more simple index: It has a significant negative effect on regime change. The coefficient estimate of the extended values index on institutional change towards the "most democratic" of the partial free regimes remains negative insignificant see Table . Interestingly, the coefficient estimate of the values index changes and becomes positive significant when looking at change towards the most democratic regimes (see model 5 in table 8), although this estimate becomes positive insignificant when adding more control variables.

Even more interesting, I find a positive significant effect of the extended values index on the survival of both partial free regimes and regimes above the medium democracy threshold; that is, the "most democratic" partial free regimes. I find a positive but insignificant effect of liberal-democratic values on the survival of fully democratic regimes, however.

Thus, a more extensive indicator of liberal-democratic values does not alter the negative significant effect of values on regime change from unfree regimes and the generally insignificant effect of values on regime change, but it does suggest that there may be a relationship between liberal-democratic values and the survival of semi-democracies.

7.5 Alternative lag structures

In order to allow for a meaning comparison with Inglehart and Welzel (2005) I lagged all independent variables with 5 years in the first part of my analysis. I want to investigate whether my results are robust to alternative lag specifications. There is no clearly developed theoretical expectation of the correct lag in effect of values on regime type, and any choice of lag structure is thus somewhat arbitrary. Therefore, I run out all my models in table 5 with 1-year lags and 10-year lags of all independent variables.

Using 1-year lags, the positive significant effect of liberal-democratic values based on OLS regression in Models 2-3, that is the replication models, disappears (see Table 17 in appendix). In fact, the effect of liberal–democratic values becomes negative insignificant. In defense of Inglehart and Welzel's model and conclusions, it can be argued that a 1-year lag is not a fair test of their theoretical assumptions. It takes several years for a change in values to stimulate collective action and finally create institutional change. Thus, this result, in itself, is not necessarily a blow to the replication model, although it does raise some concern on the robustness of the proposed effect (in addition to those concerns stemming from the other

analyses I have conducted). The coefficient estimates of values in the fixed effects model and the Arellano-Bond remain negative significant.

Using 10-year lags, the results from table 5 are only enhanced (see Table 18 in the appendix). All the coefficient estimates for values from OLS regression (models 1-3) are now positive and significant at the 0.001 level. However, the values coefficient from the fixed effects model is still negative, now at a higher significance level, while the values coefficient from Arellano-Bond GMM model remains the same, that is negative and significant.

In sum, the lack of a positive effect of liberal-values on democracy persists even when estimating the effect using one-year or ten-year lags on the independent variables.

7.6 Highly correlated independent variables

The problem of multicollinearity arises when there are approximate linear relationships between two or more independent variables. Reminding that the emergence of democratic institutions may happen as a result of complex interactions between different factors which evolve jointly, it may be that many of the factors which explain democracy correlate highly. This might make it difficult to disentangle individual effects of certain variables and lead to inflated standard errors and hence underestimated effects (see Kennedy 2009: 193). Multicollinearity can be detected by calculating the Variance Inflation Factor(VIF), which measures to what extent a variable is determined by a combination of the other independent variables (see Maddala and Lahiri 2009: 282). To check for this problem I have calculated the VIF for the most theoretically interesting variables from the models, and the results are presented in table A18 (see appendix). The literature suggests that multicollinearity should be considered a problem if VIF exceeds a threshold of 10, and I operate with this is an approximate criterion.

Table A18 shows that multicollinearity is not problematic for the OLS nor the dynamic probit model. Logged GDP per capita has the highest VIF value in both models, but this is only 6.65 in the OLS model and 8.93 in the dynamic probit model, which is well within the accepted interval. Hence, I include that my estimates are not driven by multicollinearity.

7.7 Dependent observations

I have already dealt with the problem of dependent observations due to omitted country-specific time-invariant variables. Using a fixed effects model and Arellano-Bond model I controlled for underlying contextual factors thereby mitigating the problem of autocorrelation which arises when an observation in year t is correlated with the observation from t-1, and panel-specific heteroskedasticity, which arises when the variance is dependent on what country we are looking at. Another, but somewhat different problem, is that temporal dependence of the observations may be related to a potential bias, More specifically, the results above may be driven by time-specific (and country-invariant) omitted variables, that is factors which vary over time but affect all countries in the sample. For instance, what if there has been a general trend towards increased democracy globally at the same time as the level of liberal-democratic values has increased globally. This may create the impression that there is a causal relationship between the two as they both increase over time, although this increase is really due to global trends of democratization and more liberal-minded citizens. This gives a situation where observations for values and democracy level in Suriname in 2007 is not independent of values and democracy level in South Korea in 2007. Moreover, it is not implausible to think that world events such as the fall of communism stimulated both a jump in liberal-democratic values as well as the emergence of democracies. If this is the case the model may do better predicting the outcome in years where no such "external shock" occurred. Moreover, it may lead to correlated error terms for observations in the same year, known as the problem of autocorrelation.

I investigate whether this source of omitted variable bias affects my result, running my models with dummy variables for each year in my time-series. This change in model specification does not alter the coefficient estimates significantly in the OLS regression, nor in the models using fixed effects or Arellano-Bond estimation (see table 27 in the appendix). Furthermore, the coefficient estimates for values from the dynamic probit models rarely change as opposed to the original model. The coefficient estimate of liberal-democratic values on democratic change is still negative significant for institutional change at lower levels of democracy, and insignificant at medium and high levels of democracy. This means that my result is probably not driven by time trends creating omitted variable bias.

In addition, I run the models explaining democracy level using robust standard errors, which is another way of correcting for possible non-independence.[52] This method takes into account the possible threat of autocorrelation as well as the possibility of heteroskedasticity (see Beck and Katz 1995), although they do not deal with the above-discussed problem of potential omitted variable bias due to time trends.[53] Running the OLS model with robust standard errors I find that the positive effect of liberal-democratic values on democracy found in chapter 6 disappears. When adding relevant control variables in model 2 and 3 (see table 28 in the appendix) the effect of liberal-democratic values on democracy is no longer significant. As I have already discussed when interpreting and justifying the use of fixed effects models, the error terms are likely to vary between countries in my analysis. As OLS with robust standard errors captures this problem, this result is a serious blow to the validity of the initial models. Running the fixed effects model with standard errors clustered on country the effect of liberal-democratic values on democracy is level is still negative and significant. In the Arellano-Bond model the coefficient estimate is still negative but no longer significant.

Hence, the results imply that the initial result from the OLS model showing a positive relationship between liberal-democratic values and democracy probably suffers from problems of heteroskedasticity or autocorrelation. In the presence of heteroskedasticity and autocorrelation, OLS may systematically over- or underestimate the sizes of the standard errors, and in this instance it seems to have underestimated them. Hence, correcting for this only strengthens the impression that it is problematic, at best, to conclude that there is relationship between liberal-democratic values and democracy level. In addition, the estimates from the models with robust standard errors also question the robustness of the negative effect of values on democracy when controlling for country-specific effects, although this result becomes significant when using the Arellano-Bond estimator.

[52] The dynamic probit model explainin democratic transitions and survival has already been run with with robust standard errors in chapter 6.

[53] It is argued that this is the best method for many cross-sectional units and relatively short time series (see Beck and Katz 1995).

7.8 Summary: A second look at the results

The main finding in my analysis, namely the lack of support in favor of a positive effect of liberal-democratic values on democracy turns out quite robust to alternative model specifications. In the original analysis I found absolutely no indication of a positive significant coefficient estimate for liberal-democratic values when controlling for country-specific factors and taking into account the problem of endogeneity, not even across the imputed datasets. This chapter strengthened this finding showing that no such effect is found when using an alternative democracy indicator or an alternative operationalization of liberal-democratic values. Moreover, I found no support for this hypothesis with different lag structures of the independent variables nor when excluding outliers and influential observations. I showed that this result is unlikely to be due to non-dependency due to time-specific omitted variables, nor is it likely to affect by bias following from multicollinearity.
In a similar manner, when looking at the effect of liberal-democratic values on transitions to democracy and survival of democracy, the robustness checks do not alter the main conclusion from the original analysis: There are few signs that liberal-democratic values affect the emergence of democracy positively and only small indications of a positive effect on democratic stability under certain circumstances.

At the same time, these tests provide some additional clues regarding the nature of the relationship between liberal-democratic values and democracy. First of all, the findings in my original analysis suggesting a negative significant effect of liberal-democratic values on democracy level when controlling for country-specific factors and the problem of endogeneity has proved to be less robust to alternative model specifications. When operationalizing democracy using the more extensive index which includes 15 indicators rather than four, the negative coefficient estimates become insignificant. The same thing happens when removing outliers. When operationalizing democracy using the polity index the coefficient estimate from the fixed effects model becomes insignificant.

Looking at the results from the dynamic probit models, the finding that liberal-democratic values have a negative effect on democracy when using the lowest democracy threshold is surprisingly robust. It remains significant when using the alternative index for values and when excluding outliers from the analysis. In other words, liberal-democratic values seem to

have a negative effect on institutional change from unfree regimes to partly free regimes. Hence, having carried out these robustness tests I am left with indications pointing to a non-linear relationship between liberal-democratic values and transitions to democracy.

Moreover, the robustness tests strengthen the finding that liberal-democratic values contribute to the survival of the most democratic partly free regimes. When using the extensive index for liberal-democratic values I even find a positive effect of liberal-democratic values on the survival of both the most democratic of the partly free regimes and the free regimes.

8 Concluding remarks

I round off this thesis by pointing to what I consider the essence of my results and their implications. First, I discuss the most striking finding, which is the lack of support to the hypothesis that liberal-democratic values breed democracy. Inglehart and Welzel (2005; 2005; 2006) have argued in favor of this hypothesis in a large number of studies, but as I show there are many problems with their inferences. Second, I discuss the findings in light of interpreting them as pointing towards a likely non-linear relationship between liberal-democratic values and institutional change towards democracy.

8.1 The non-findings and its implications

The most striking finding in this thesis has been the consistent lack of support in favor of the hypothesis that liberal-democratic values breed democracy. I have found the effect of liberal-democratic values on democracy to be either insignificant or significant and negative when controlling for country-specific time-invariant variables. This result is also strikingly robust: It remains robust across the different imputed datasets which means that it cannot be ascribed to the uncertainty stemming from the imputation process, and it remains robust under alternative model specifications including alternative operationalizations of democracy and liberal-democratic values. Hence, this finding can be said to question the sturdiness of Inglehart and Welzel's (2005) conclusion.[54]

One possible interpretation of this finding is that underlying historical factors determine both a country's level of liberal-democratic values as well as its level of democracy. In other words, that history has a lasting impact so grave that even extensive socio-economic transformations such as modernization cannot wash away its presence in contemporary political affairs. In line with Acemoglu et al (2008) and theories of historical sociology it can be argued that at some point societies embarked on divergent political-economic development paths, some leading to liberal-oriented citizens and democratic institutions and others leading

[54] I have only analysed the effects of one specific dimension of mass-attitudes, namely what I have referred to as liberal-democratic values. It could be that other value dimensions have a stronger impact on democracy than the one I have investigated. Yet, I have showed that my index is a valid operationalization of the concept which is theoretically most salient. and in this regard it can be seen as a valid test of Inglehart and Welzel's hypothesis as well as the most plausible theoretical argument.

to more authority-oriented citizens and authoritarian political systems. If this interpretation is true, we should be able to identify and test certain historical factors which explain societies' position today. Doing so has been outside the scope of this thesis, but I would like to suggest a few candidates.

Recent literature has pointed to several historical factors which may explain why some countries experience both economic development and democracy while others experience none (see Acemoglu, Robinson and Johnson 2000). Some of these factors may also be plausible explanations for why some countries have embarked upon a path towards democracy and populaces that embrace liberal values. For instance, it has been argued that mortality rates in European colonies were an important explanation for why some countries gained early experience with restricted governments and strong institutions. In places where the disease environment was not favorable to European settlement, the Europeans powers chose to set up "extractive states" with the aim of collecting resources rather than establishing replications of European strong institutions including checks against government power and the protection of private property. These early institutions were detrimental to investment and economic progress as well as for the prospects for future democracy (Acemoglu, Johnson and Robinson (2000). These institutions may also have had a significant impact on citizen aspirations. In line with institutional learning theory it can be argued that experience with the rule of law and responsive government create citizens with internalized appreciations of freedom and self-decision (see e.g. Rustow 1971; Muller and Seligson 2002). Hence, settler mortality rates at the time of colonization may be an explanation of both liberal-democratic values and democratic institutions, and thus one of the omitted variables driving the correlation between the two. In a sense, this argument also points towards the potential endogeneity of values to political institutions, as it highlights "learning" of liberal values stemming partly from experiences of living under specific institutional settings (although it is not necessarily democracy per se that is the most relevant institutional aspect). This interpretation could also be argued to have some support from the fact that some of the Arellano-Bond models, when contrasted with the results in models not taking values as endogenous, above indicated that values could indeed be endogenous to institutional context.

Another suggested explanation, which also has deep historical roots (see e.g. Weber 1930), is religion at the time of state formation. For instance, Protestantism may have had an impact on the flourishing of both capitalism and democracy, through promoting a work ethic conducive

to capitalism and an experience with more de-centralized church government in the Calvinist tradition. While Islam and Confucianism may have inhibited both (Lipset and Lakins 2006). Religion is an even more plausible explanation of level of liberal-democratic values, and can be seen as a plausible candidate for an omitted variable affecting both values and democracy. For instance, it has been argued that Protestantism through Luther's theology promoted individualism on the expense of dependency on priest leadership (Weber 1930).

Hence, settler mortality rates and religion are suggestions of plausible candidates which explain both liberal-democratic values and democracy in a country.[55] Investigating to what extent any of these factors explain the correlation between values and democracy is a compelling topic for future research.

The non-finding in this thesis has theoretical implications insofar as it suggests that there is no direct causal effect of liberal-democratic values on democracy level. Rather, country-specific factors such as settler mortality rates may be the cause of both. At the same time, this finding has methodological implications: It points to historical studies of contextual background as a valuable source of insight into the causal nature of this relationship (see Acemoglu et al 2008; Mahoney and Rueschemeyer 2003). This is not to say that the relevant historical variables cannot be included in a statistical model which aims to explain democracy across countries. Nevertheless, if we assume that we have yet to identify all relevant omitted country-specific variables which affect both values and democracy the historical approach may be the most fruitful.

At the same time, some caution is necessary in interpreting the results. First of all, although I find no indications in favor of a causal effect of liberal-democratic values, an effect might still be present, but operating at a much lower frequency. It might take 20, 50 or even 100 years before changes in attitudes affect political institutions. In any case, it is not implausible to think that the causal effect is too slow to be captured by the relatively short time-series utilized in this thesis. If this is the case, we may have to collect survey data for another 50 years before we are able to conclude regarding the effect of liberal-democratic values on institutions.

[55] Other possible concrete candidates are whether or not the country was a British colony and distance from the equator (see Acemoglu et al 2007), as these may correlate both with the influence from major European powers and certain other geographical features that could have impacted on political-institutional structures and cultural life.

Second, my results do not say anything about the effect of democracy on values, although the fact the coefficient estimate changes slightly when applying the Arellano-Bond estimation points in favor of an endogenous relationship. Even if there is no effect of values on democracy there may very well be an effect the other way around, as I have touched upon when discussing institutional learning theory. Third, even if we are to interpret the findings as indicating that underlying historical factors explain both values and democracy today; this does not imply historical determinism when it comes to political culture and institutions. It only implies that historical factors have a considerable long-lasting impact, but societies may still diverge from historical paths under certain circumstances. "The presence of divergent development paths creates a tendency, but many other factors influence equilibrium political institutions" writes Acemoglu et al (2008). I round off this thesis by discussing possible factors which may interact with the effect of values on democracy.

8.2 Political culture in an authoritarian setting

Apart from the consistent and robust lack of a positive effect of liberal-democratic values on democracy, the second interesting finding of this thesis is the indications pointing to a negative effect of values on democracy in certain circumstances. More specific, there are signs of a negative effect of liberal-democratic values on regime change from unfree to partly free. This result is robust across all imputed datasets and to the alternative operationalization of democracy, but not to the exclusion of countries which have not existed throughout the entire time-series. This means that care should be made not to draw any bombastic conclusion on the basis of these results, but I still comment on the results and their possible interpretation.

As I have noted, this is a surprising finding when considering that it has to my knowledge not been proposed explicitly. Literature dealing with a democratic political culture and liberal-democratic values either suggests that it has a positive effect on democratization, democratic survival or both. At a second glance, however, and when taking into consideration the literature on authoritarian regimes and their dynamics, it is no news that changes in mass attitudes and collective action can lead to unexpected outcomes in authoritarian settings. In chapter 3 I argued that authoritarian leaders are able to mitigate potential uprisings and demands for freedom through repression and the restriction of the mass media and means of communication. It can be hypothesized that the emergence of citizens demanding freedom

and political change leads the dictator to carry out pre-emptive measures. Fearing the consequence of a more critical populace the regime increases repression in order to keep liberal leading figures and its potential supporters under control and restricts the freedom of the media in order to exclude critical voices and prevent the diffusion of such aspirations. As a result, if this argument holds liberal-democratic values may ironically lead to reduced democracy. Hence, the indications of a negative effect of values on regime change towards semi-democracies may reveal something about the dynamics of authoritarian regimes.

Furthermore, I have found indications of a non-linear effect of values on democracy: Liberal-democratic values seems to have a negative effect on regime change from unfree to partly free regimes but may have a positive effect on change towards the most democratic regimes, although this coefficient estimate is only significant under certain model specifications. If this is the case, it is coherent with the interpretation I have just launched: In authoritarian settings. However, in societies where a minimum of basic rights and freedoms are protected and the democracy-seeking opposition is able to coordinate and organize collective action as well as recruit followers, liberal-democratic values may in fact help to push the leaders to carry out further liberalization. In other words, this suggests that there must be a minimum level of democracy present for liberal-democratic values to have an effect. Returning to the theoretical discussion, there must be an "opening" or an "opportunity" to push for institutional change (see Kuran 1991). Liberal aspirations provide the motivation for collective action but the extent to which there is an opportunity is determined by structural factors.

Meanwhile, this is not incoherent with the historical approach to democratization which I discussed above: If a certain level of basic rights and freedom is necessary for the emergence of full democracies, those countries with institutional experience with democracy will have an advantage over those without such experience. Hence, there is an element of path dependency in the prospects for democracy, where the countries having gone down a path of authoritarianism, traditional-oriented citizens and limited economic development may have a hard time democratizing.

What these findings suggest is that the model of Inglehart and Welzel (2005) assuming a strong and consistent effect of liberal-democratic values on democracy through collective action may be too simple to capture the dynamics of institutional change and collective action in an authoritarian setting. It is a model which fails to take properly into account the different obstacles which democratic movements are faced with when opting for institutional change.

In particular, the literature suggests that "an opening" in the form of for instance increased press freedom or incidences of democratization in neighboring countries is often necessary to create the spark that coverts mass attitudes into institutional change (see Kuran 1991). Without such an opening, it is unlikely that the emergence of liberal-oriented freedom-seeking individuals will bring about genuine change, and ironically it may even lead to authoritarian tightening on society through increasing repression. It should again be emphasized however, that this result is less robust than the non-finding of a positive effect of values on democracy, and hence should be seen as an uncertain conclusion at best.

That having said, the fact that this simple model is challenged does not mean that mass attitudes can be excluded as an important explanation of democracy. But, if liberal-democratic values have an impact it is likely to be conditioned upon a range of other factors which need to be included in the model. Hence, I would make the case for a more comprehensive explanatory model which incorporates the interaction between mass attitudes, past institutions, structural and socio-economic factors and the choices and strategic interactions of key agents.

I remind that the theory of mass attitudes, which I have investigated above, should be understood as a part of modernization theory, impying that my findings can be understood as a challenge to this version of modernization theory. Inglehart and Welzel (2005) argue that the emergence of liberal-democratic values should be seen as the intervening factor tying socio-economic changes such as higher income, industrialization and education to the emergence of more responsive regimes. As has been often pointed out, Lipset's hypothesis was much more nuanced than simply proposing a relationship between income and democracy. It proposed that the encompassing changes in society, in the economy, and in social relations which followed from modernization would bring about democracy. But, it did assume that as long as all these processes emerged this would eventually bring about democratization. The tradition following from Lipset paid little attention to problems of collective action, of strategic interaction and of the abilities of key agents and dictators to manipulate the masses and their ability to convert their desires into political currency. If the implications drawn in this discussion are correct, and the effect of liberal-values is in fact conditioned upon factors such as repression and authoritarian leader's motivation and ability to prevent political change, the simple structural model of modernization theorists seems to provide insufficient explanations of the relationship between values and democracy.

In sum, applying my findings to the South Korean process of democratization which took place in the 1980s, discussed in the introduction, it can be argued that even if democracy did arise in a climate of liberal-minded citizens who voiced their demands through demonstrations and uprisings, it may be that the aspirations of citizens did not have a causal effect on the democratic transition. There may be underlying historical conditions specific to South Korea which explains both why citizens are liberal-oriented and why democracy could arise in this country. Alternatively, the aspirations of the masses may have had a causal effect on democratization, but only because other favorable factors such as the choices and personality of the dictator allowed for this relationship to take place. Finally, even if democracy in South Korea was brought about primarily by changes in mass aspirations, the findings in thesis provide few reasons to expect that the South Korean path is the recipe for democratization.

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Appendix

Dataset and do- files from Stata will be provided upon request (contact: sirianne.dahlum@gmail.com)

Table 13. OLS with Region dummies as control variables

	1: OLS	2: Fixed effects OLS	3: GMM
Values index	1.622***	-1.697**	-1.387***
	(0.400)	(0.597)	(0.343)
Freedom House	0.677***	0.384***	
	(0.0151)	(0.0199)	
GDP(log)	0.115**	0.0433	0.210***
	(0.0350)	(0.0747)	(0.0520)
School enrollment	0.00621**	0.0215***	-0.00122
	(0.00212)	(0.00305)	(0.00183)
Ethnic Fractionalization	-0.00373	0.0923	-0.0122
	(0.0690)	(0.164)	(0.0449)
Military spending	-0.00000647***	-0.00000487*	-0.00000126
	(0.00000126)	(0.00000196)	(0.00000115)
Export	0.000000210	0.000000923***	0.000000499***
	(0.000000130)	(0.000000193)	(0.000000114)
Protestant majority	-0.00618	0.784***	0.0889
	(0.0632)	(0.183)	(0.0654)
Muslim majority	-0.0854	0.253	-0.371***
	(0.0658)	(0.194)	(0.0673)
Africa	0.164	0.335	0.00423
	(0.0870)	(0.627)	(0.0992)
Asia-Pacific	Ref. cat	Ref. cat.	
	(.)	(.)	
C & E Europe	0.337***	0.417	0.0557
	(0.0656)	(0.503)	(0.0866)
Middle East	-0.193*	-0.479	-0.154
	(0.0942)	(0.627)	(0.103)
North America	0.0606	-0.307	0.392**
	(0.121)	(0.810)	(0.134)
South America	0.209**	-0.522	0.174
	(0.0783)	(0.613)	(0.0984)

Scandinavia	-0.0669	-0.888	0.289*
	(0.110)	(0.662)	(0.126)
Western Europe	0.135	-0.294	0.0880
	(0.0768)	(0.571)	(0.0941)
L.Freedom House			0.833***
			(0.0123)
Constant	-0.276	1.696*	-0.253
	(0.205)	(0.661)	(0.369)
Observations	2326	2326	2617
r2	0.784	0.293	

Standard errors in parentheses

$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 14. OLS with additional control variables

	1: OLS	2: Fixed effects OLS	3: GMM
Values index	1.301***	-1.697**	-1.231***
	(0.377)	(0.597)	(0.337)
Freedom House	0.681***	0.384***	
	(0.0145)	(0.0199)	
GDP(log)	0.0750*	0.0433	0.191***
	(0.0305)	(0.0747)	(0.0514)
School enrollment	0.00870***	0.0215***	-0.000854
	(0.00167)	(0.00305)	(0.00178)
Ethnic Fractionalization	0.0396	0.0923	-0.00959
	(0.0665)	(0.164)	(0.0418)
Military spending	-0.00000857***	-0.00000487*	-0.00000197
	(0.00000114)	(0.00000196)	(0.00000110)
Export	0.000000306*	0.000000923***	0.000000514***
	(0.000000121)	(0.000000193)	(0.000000109)
Protestant majority	-0.0326	0.784***	0.104
	(0.0558)	(0.183)	(0.0626)
Muslim majority	-0.259***	0.253	-0.453***
	(0.0571)	(0.194)	(0.0616)
Africa		0.335	
		(0.627)	
Asia-Pacific		0	
		(.)	

C & E Europe		0.417	
		(0.503)	
Middle East		-0.479	
		(0.627)	
North America		-0.307	
		(0.810)	
South America		-0.522	
		(0.613)	
Scandinavia		-0.888	
		(0.662)	
Western Europe		-0.294	
		(0.571)	
L.Freedom House			0.840***
			(0.0120)
Constant	0.138	1.696*	-0.138
	(0.162)	(0.661)	(0.359)
Observations	2326	2326	2617
r2	0.780	0.293	

Standard errors in parentheses
$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 15. Dynamic probit with additional control variables

	1: Freedom House (low)	2: Freedom House (medium)	3: Freedom House (high)
Freedom House (lag)	3.113***		
	(0.760)		
Values	-3.849	-0.777	1.817
	(2.332)	(1.435)	(1.181)
GDP (log)	0.234	0.0560	0.164
	(0.184)	(0.115)	(0.108)
School	-0.000597	0.00320	0.00235
	(0.00826)	(0.00535)	(0.00673)
Muslim	0.417*	0.164	-0.296
	(0.194)	(0.138)	(0.262)
Population	-6.92e-10	-6.55e-10	4.90e-11
	(5.79e-10)	(5.34e-10)	(4.47e-10)
FH*Values	1.200	2.516***	3.604***
	(3.289)	(0.741)	(0.858)

FH*GDP	-0.0629	1.158	-0.217
	(0.229)	(1.693)	(1.735)
FH*School	-0.00134	-0.0882	-0.239
	(0.00978)	(0.135)	(0.168)
FH*Muslim	-0.411	0.00262	0.0114
	(0.302)	(0.00721)	(0.00979)
FH*population	5.21e-10	8.37e-10	0.151
	(7.45e-10)	(7.75e-10)	(0.384)
Gini	-0.0196	-0.122	7.62e-11
	(0.0144)	(0.192)	(5.22e-10)
Oil	-0.0278***	-0.0199*	-0.0185*
	(0.00661)	(0.00772)	(0.00909)
Export	-0.00000118*	-0.000000270	-9.71e-08
	(0.000000476)	(0.000000387)	(0.000000411)
Military	-0.000000598	0.00000200	-0.00000307
	(0.00000457)	(0.00000404)	(0.00000475)
Africa	-0.168	-0.258	-0.169
	(0.305)	(0.196)	(0.226)
Asia-Pacific	0	0	0
	(.)	(.)	(.)
C & E Europe	-0.537	-0.281	-0.242
	(0.283)	(0.185)	(0.217)
Middle East	-0.720*	-0.548*	-0.327
	(0.307)	(0.226)	(0.366)
North America	3.782*	2.318*	0.407
	(1.773)	(1.012)	(0.443)
South America	0.911	0.686**	0.150
	(0.531)	(0.259)	(0.238)
Scandinavia	2.265**	1.779***	1.568***
	(0.698)	(0.509)	(0.433)
Western Europe	3.013***	2.073***	1.171***
	(0.571)	(0.486)	(0.267)
Constant	-0.0877	-1.293	-3.447***
	(1.005)	(0.736)	(0.713)
Observations	2809	2809	2809
Pseudo R^2	0.714	0.673	0.712
ll	-310.8	-574.7	-560.5
ll_0	-1086.9	-1756.4	-1946.8

Standard errors in parentheses

$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 16. Alternative lag structure. Explanatory variables lagged with one year

	1: OLS	2: OLS	3: OLS	4: Fixed effects OLS	5:GMM
Values index	11.04***	-0.0290	-0.0832	-0.689*	-1.231***
	(0.317)	(0.151)	(0.199)	(0.310)	(0.337)
Freedom House		0.923***	0.912***	0.852***	
		(0.00683)	(0.00747)	(0.0108)	
GDP(log)		0.0549***	0.0321*	-0.0374	0.191***
		(0.0112)	(0.0159)	(0.0426)	(0.0514)
School enrollment			0.00207*	0.0101***	-0.000854
			(0.000883)	(0.00167)	(0.00178)
Ethnic Fractionalization			0.0241	0.0451	-0.00959
			(0.0295)	(0.0414)	(0.0418)
Military spending			-0.00000174**	-0.00000205*	-0.00000197
			(0.000000612)	(0.00000101)	(0.00000110)
Export			0.000000175**	0.000000417***	0.000000514***
			(6.56e-08)	(0.000000103)	(0.000000109)
Protestant majority			0.0303		0.104
			(0.0306)		(0.0626)
Muslim majority			-0.0941**		-0.453***
			(0.0315)		(0.0616)

L.Freedom House					0.840***
					(0.0120)
Constant	0.240	0.00478	0.0988	0.521	-0.138
	(0.136)	(0.0541)	(0.0838)	(0.289)	(0.359)
Observations	2714	2714	2714	2714	2617
r2	0.309	0.934	0.935	0.771	

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 17. Explanatory variables lagged with ten years.

	1: OLS	2: OLS	3: OLS	4: Fixed effects OLS	5:GMM
Values index	10.26***	1.565***	2.569***	-1.796**	-1.231***
	(0.370)	(0.401)	(0.511)	(0.600)	(0.337)
Freedom House		0.482***	0.456***	0.0160	
		(0.0184)	(0.0196)	(0.0204)	
GDP(log)		0.257***	0.0995*	-0.0832	0.191***
		(0.0298)	(0.0414)	(0.0799)	(0.0514)
School enrollment			0.0138***	0.0269***	-0.000854
			(0.00224)	(0.00342)	(0.00178)
Ethnic Fractionalization			0.0989	-0.162	-0.00959
			(0.0875)	(0.135)	(0.0418)
Military spending			-0.0000132***	-0.000000666	-0.00000197
			(0.00000152)	(0.00000195)	(0.00000110)
Export			0.000000555***	0.00000108***	0.000000514***
			(0.000000161)	(0.000000199)	(0.000000109)
Protestant majority			-0.0658	0.459**	0.104
			(0.0766)	(0.171)	(0.0626)
Muslim majority			-0.506***	0.365*	-0.453***
			(0.0781)	(0.185)	(0.0616)
L.Freedom House					0.840***
					(0.0120)
Constant	0.879***	0.251	0.366	4.239***	-0.138
	(0.158)	(0.152)	(0.222)	(0.552)	(0.359)

Observations	1841	1841	1841	1841	2617
r2	0.294	0.608	0.651	0.0902	

Standard errors in parentheses

- $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 18. OLS on Freedom House. With broad values index.

	1: OLS	2: OLS	3: OLS	4: Fixed effects OLS	5:GMM
Selfexpression values	12.38***	1.296***	1.020*	-3.027***	-0.0217
	(0.294)	(0.309)	(0.411)	(0.626)	(0.334)
Freedom House		0.688***	0.668***	0.392***	
		(0.0138)	(0.0143)	(0.0181)	
GDP(log)		0.143***	0.103***	0.0823	0.136**
		(0.0209)	(0.0282)	(0.0717)	(0.0489)
School enrollment			0.00733***	0.0217***	-0.0000771
			(0.00159)	(0.00300)	(0.00179)
Ethnic Fractionalization			0.00938	-0.364**	-0.00323
			(0.0656)	(0.138)	(0.0417)
Military spending			-0.00000848***	-0.00000455*	-0.00000152
			(0.00000114)	(0.00000191)	(0.00000111)
Export			0.000000345**	0.00000103***	0.000000352**
			(0.000000121)	(0.000000185)	(0.000000109)
Protestant majority			-0.00126	0.628***	0.0438
			(0.0543)	(0.176)	(0.0629)
Muslim majority			-0.230***	0.0732	-0.443***
			(0.0648)	(0.188)	(0.0628)
L.Freedom House					0.862***
					(0.0109)
Constant	-0.258*	0.0785	0.178	2.070***	-0.338
	(0.128)	(0.107)	(0.169)	(0.515)	(0.358)
Observations	2326	2326	2326	2326	2617
r2	0.432	0.768	0.780	0.293	

Standard errors in parentheses

- $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 19. Dynamic probit with Freedom House. Extended values index.

	1: Freedom House (low)	2: Freedom House (low)	3: Freedom House (medium)	4: Freedom House (medium)	5: Freedom House(high)	6: Freedom House(high)

Freedom House(lagged)	0.354	-0.214	2.024***	1.626*	3.007***	2.267**
	(0.723)	(0.766)	(0.598)	(0.666)	(0.765)	(0.872)
Values	-5.755**	-9.850***	0.274	-0.971	2.957**	0.854
	(1.785)	(1.923)	(0.986)	(1.180)	(0.970)	(1.252)
GDP (log)	0.0321	0.210	0.134*	0.110	0.183*	0.235*
	(0.0889)	(0.167)	(0.0647)	(0.104)	(0.0759)	(0.104)
FH*Values	6.441**	9.463***	2.377	3.128*	-1.424	0.674
	(2.337)	(2.386)	(1.241)	(1.411)	(1.678)	(1.836)
FH*GDP	0.0598	-0.0231	-0.0443	0.0471	0.0173	-0.0482
	(0.132)	(0.183)	(0.0930)	(0.121)	(0.123)	(0.157)
School		-0.00486		0.00297		-0.00219
		(0.00783)		(0.00494)		(0.00631)
Muslim5		-0.807**		-0.339		-0.633*
		(0.284)		(0.176)		(0.268)
Population		-1.71e-10		-4.79e-10		5.43e-11
		(5.63e-10)		(5.20e-10)		(4.35e-10)
FH*School		-0.00273		-0.00915		0.00408
		(0.00782)		(0.00633)		(0.00917)
FH*Muslim		0.476		8.67e-10		0.363
		(0.355)		(7.91e-10)		(0.410)
FH*Population		2.69e-10		0.117		3.59e-10
		(7.65e-10)		(0.240)		(5.08e-10)
Constant	0.703	1.607**	-2.276***	-1.721**	-3.980***	-3.282***
	(0.615)	(0.618)	(0.520)	(0.571)	(0.648)	(0.694)
Observations	2809	2809	2809	2809	2809	2809
Pseudo R^2	0.671	0.677	0.624	0.628	0.682	0.686
ll	-358.1	-351.5	-659.8	-653.8	-618.6	-611.4
ll_0	-1086.9	-1086.9	-1756.4	-1756.4	-1946.8	-1946.8

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 20. Results: Polity.

	1: OLS	2: OLS	3: OLS	4: Fixed effects OLS	5:GMM
Values index	29.09***	0.898	6.992***	-4.374	-2.731*
	(1.218)	(1.128)	(1.482)	(2.281)	(1.381)
polity		0.668***	0.661***	0.362***	
		(0.0134)	(0.0143)	(0.0192)	
GDP(log)		0.570***	0.161	-0.274	0.777***
		(0.0818)	(0.113)	(0.284)	(0.207)
School enrollment			0.0359***	0.0890***	-0.0124
			(0.00643)	(0.0117)	(0.00722)
Ethnic Fractionalization			0.232	0.315	-0.606***

			(0.259)	(0.526)	(0.169)
Military spending			-0.0000303***	-0.0000131	0.0000111*
			(0.00000438)	(0.00000750)	(0.00000444)
Export			-5.27e-09	0.00000292***	0.000000518
			(0.000000461)	(0.000000735)	(0.000000439)
Protestant majority			-0.898***	1.239	0.344
			(0.216)	(0.680)	(0.251)
Muslim majority			-0.921***	0.205	-1.839***
			(0.225)	(0.736)	(0.248)
L.polity					0.822***
					(0.0126)
Constant	2.270***	0.600	-0.527	6.167**	-1.284
	(0.522)	(0.409)	(0.631)	(1.959)	(1.454)
Observations	2326	2326	2326	2326	2617
r2	0.197	0.697	0.715	0.253	

Standard errors in parentheses
• p < 0.05, ** p < 0.01, *** p < 0.001

Table 21. Results. OLS regression with all 5 imputed datasets.

	2: Dataset 2	1: Dataset 1	3: Dataset 3	4: Dataset 4	5:Dataset 5
Values	0.669*	1.325***	0.224	1.872***	0.0223
	(0.336)	(0.323)	(0.299)	(0.320)	(0.326)
Freedom House	0.665***	0.651***	0.660***	0.644***	0.662***
	(0.0158)	(0.0152)	(0.0153)	(0.0147)	(0.0153)
GDP_log	0.119***	0.114***	0.100***	0.0924***	0.108***
	(0.0300)	(0.0293)	(0.0302)	(0.0278)	(0.0316)
School	0.00402*	0.00605***	0.00811***	0.00803***	0.00926***
	(0.00158)	(0.00161)	(0.00173)	(0.00157)	(0.00180)
Ethnic frac.	0.0136	0.0285	0.0183	0.0192	0.0412
	(0.0742)	(0.0709)	(0.0705)	(0.0697)	(0.0715)

Military	-0.00000530***	-0.00000621***	-0.00000549***	-0.00000746***	-0.00000619***
	(0.000000928)	(0.00000103)	(0.00000124)	(0.00000109)	(0.00000104)
Export	0.000000322**	0.000000137	0.000000349**	0.000000175	0.000000341**
	(0.000000120)	(0.000000115)	(0.000000109)	(0.000000113)	(0.000000113)
Religion==Protestant	-0.0136	0.0449	0.00622	-0.0726	0.0494
	(0.0584)	(0.0566)	(0.0557)	(0.0540)	(0.0569)
Religion==Muslims	-0.356***	-0.304***	-0.341***	-0.239***	-0.326***
	(0.0594)	(0.0596)	(0.0590)	(0.0583)	
Constant	0.460**	0.138	0.472**	0.000629	0.407*
	(0.167)	(0.161)	(0.161)	(0.160)	(0.165)
Observations	2326	2326	2326	2326	2326
r2	0.746	0.744	0.746	0.756	0.748

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 22. Results. OLS fixed effects model with all 5 imputed datasets.

	1: Dataset 1	2: Dataset 2	3: Dataset 3	4: Dataset 4	5:Dataset 5
valuesA	0.491	-0.265	-2.036***	0.638	-1.085**
	(0.445)	(0.439)	(0.393)	(0.463)	(0.385)
FHouse	0.361***	0.388***	0.356***	0.387***	0.367***
	(0.0196)	(0.0206)	(0.0196)	(0.0188)	(0.0197)
GDP_logA	-0.0617	-0.183**	0.0980	0.0810	-0.0789
	(0.0627)	(0.0615)	(0.0610)	(0.0610)	(0.0666)
schoolenrollmentA	0.0106***	0.0136***	0.0212***	0.0163***	0.0208***
	(0.00239)	(0.00256)	(0.00262)	(0.00252)	(0.00273)
frac_eth	-0.492***	-0.271	-0.184	-0.298*	-0.470**
	(0.147)	(0.146)	(0.143)	(0.142)	(0.146)
Military	-0.00000133	-0.00000142	0.00000166	-0.00000145	-0.00000435**
	(0.00000137)	(0.00000129)	(0.00000170)	(0.00000151)	(0.00000138)
Export	0.000000297*	0.000000571***	0.000000440**	0.000000413*	0.000000586***
	(0.000000149)	(0.000000169)	(0.000000135)	(0.000000163)	(0.000000136)
Religion==Protestant	0.614***	0.313*	0.209	0.150	0.288*
	(0.131)	(0.132)	(0.125)	(0.116)	(0.134)
Religion==Muslims	0.0391	-0.00775	-0.0168	0.226	0.0425
	(0.165)	(0.169)	(0.154)	(0.164)	(0.177)
Constant	2.865***	3.731***	1.760***	1.044*	2.915***
	(0.462)	(0.445)	(0.442)	(0.448)	(0.493)
Observations	2326	2326	2326	2326	2326
r2	0.206	0.233	0.267	0.242	0.240

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 23. Results. Freedom House. Arellano-Bond GMM with all 5 imputed datasets

	1: Dataset 1	2: Dataset 2	3: Dataset 3	4: Dataset 4	5:Dataset 5
L.FHouse	0.761***	0.752***	0.760***	0.788***	0.860***
	(0.0139)	(0.0140)	(0.0147)	(0.0140)	(0.0110)
valuesA	-1.272***	-2.236***	-1.790***	0.382	-0.749***
	(0.303)	(0.302)	(0.276)	(0.326)	(0.222)
GDP_logA	0.518***	0.526***	0.312***	0.305***	0.132**
	(0.0526)	(0.0503)	(0.0540)	(0.0537)	(0.0435)
schoolenrollmentA	-0.00642***	-0.0000837	0.000543	-0.00133	-0.00101
	(0.00179)	(0.00190)	(0.00203)	(0.00196)	(0.00156)
Military	-0.00000136	-0.00000165*	-0.000000618	-0.00000131	-0.000000645
	(0.000000920)	(0.000000833)	(0.00000121)	(0.00000104)	(0.000000726)
frac_eth	-0.0684	-0.0479	-0.00139	-0.0159	0.0657
	(0.0510)	(0.0520)	(0.0528)	(0.0544)	(0.0408)
Export	0.000000288**	0.000000577***	0.000000242**	0.000000305**	0.000000325***
	(9.76e-08)	(0.000000107)	(9.34e-08)	(0.000000108)	(7.37e-08)
Religion==Protestant	-0.0866	0.0797	0.128*	0.0606	0.0431
	(0.0545)	(0.0557)	(0.0535)	(0.0544)	(0.0411)
Religion==Muslims	-0.374***	-0.283***	-0.308***	-0.380***	-0.319***
	(0.0640)	(0.0664)	(0.0660)	(0.0663)	
Observations	2617	2617	2617	2617	2617
r2					

Standard errors in parentheses
•$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$Figure 6. Outliers from OLS regression.

Table 24. Freedom House (low threshold) with all 5 imputed datatsets

	1: Freedom House low (A)	2: Freedom House low (B)	3: Freedom House low ©	4: Freedom House low (D)	5: Freedom House low (E)
main					
lagFHouseAdikolow	2.753***	2.713***	2.679***	2.724***	2.821***
	(0.128)	(0.136)	(0.117)	(0.126)	(0.135)
lagvalues	-3.518**	-3.366**	-3.817**	-3.416**	-2.626*
	(1.113)	(1.156)	(1.171)	(1.128)	(1.058)
GDP (log)	0.229*	0.271**	0.307***	0.226*	0.254**
	(0.0940)	(0.0946)	(0.0919)	(0.0970)	(0.0836)
School	-0.00619	-0.00670	-0.00922	-0.00725	-0.00637
	(0.00525)	(0.00503)	(0.00522)	(0.00546)	(0.00482)
Muslim5	-0.0653	-0.0798	-0.123	-0.104	-0.0760
	(0.147)	(0.145)	(0.141)	(0.145)	(0.141)
laggini	-0.00200	0.000997	0.00160	-0.00349	-0.00145
	(0.00829)	(0.00820)	(0.00766)	(0.00823)	(0.00836)
lagoil	-0.0275***	-0.0285***	-0.0281***	-0.0270***	-0.0285***
	(0.00477)	(0.00496)	(0.00488)	(0.00487)	(0.00489)
lagFHouselagvaluesA	3.275	2.517	4.127*	1.711	0.716
	(1.794)	(1.601)	(1.836)	(1.836)	(1.932)
lagFHouselagGDP_A	0.0151	-0.00472	-0.284*	0.0693	0.0941
	(0.157)	(0.151)	(0.140)	(0.149)	(0.170)
lagFHouseSchool_A	-0.0149	-0.0104	0.00999	-0.0120	-0.0124
	(0.0105)	(0.0106)	(0.0136)	(0.0105)	(0.0104)
Constant	-0.581	-0.957	-0.866	-0.458	-1.093*
	(0.549)	(0.579)	(0.604)	(0.580)	(0.523)
Observations	2809	2809	2809	2809	2809
Pseudo R^2	0.658	0.649	0.646	0.650	0.661
ll	-374.1	-385.4	-389.9	-386.4	-371.4
ll_0	-1094.5	-1098.3	-1100.1	-1103.9	-1094.5

Standard errors in parentheses

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Table 25. Freedom House (medium threshold) with all 5 imputed datasets

	1: Freedom House medium (A)	2: Freedom House medium (B)	3: Freedom House medium (C)	4: Freedom House medium (D)	5: Freedom House medium (E)
main					
lagFHouseAdikomedium	1.807**	1.939**	2.491***	2.236***	1.990**
	(0.626)	(0.699)	(0.639)	(0.636)	(0.607)
lagvalues	-1.620	-1.943*	0.734	-0.880	-0.399
	(0.959)	(0.982)	(1.110)	(0.983)	(1.019)
GDP (log)	0.195	0.209	0.201	0.193	0.120
	(0.105)	(0.124)	(0.113)	(0.103)	(0.102)
School	0.000797	0.000639	-0.00222	0.00100	0.00402
	(0.00451)	(0.00494)	(0.00502)	(0.00419)	(0.00481)
Muslim5	-0.289*	-0.287*	-0.202	-0.278*	-0.261*
	(0.135)	(0.136)	(0.131)	(0.128)	(0.126)
laggini	0.00701	0.00715	0.00492	0.00424	0.00556
	(0.00511)	(0.00526)	(0.00522)	(0.00554)	(0.00541)
lagoil	-0.0173*	-0.0192**	-0.0214**	-0.0174*	-0.0165*
	(0.00717)	(0.00709)	(0.00741)	(0.00693)	(0.00680)
mlagFHouselagvaluesA	3.693***	3.232**	-0.331	1.680	1.199
	(0.938)	(1.117)	(1.082)	(0.943)	(1.089)
mlagFHouselagGDP_A	-0.0691	-0.0625	-0.0681	-0.0101	0.0585
	(0.113)	(0.150)	(0.128)	(0.106)	(0.121)
mlagFHouseSchool_A	-0.00409	-0.00335	0.00706	-0.00510	-0.00609
	(0.00528)	(0.00586)	(0.00670)	(0.00568)	(0.00649)
Constant	-2.064**	-2.048**	-2.683***	-2.257***	-2.186***
	(0.646)	(0.667)	(0.688)	(0.654)	(0.638)
Observations	2809	2809	2809	2809	2809
Pseudo R^2	0.595	0.604	0.587	0.602	0.602
ll	-720.5	-702.3	-733.4	-704.5	-706.4
ll_0	-1780.0	-1773.5	-1774.3	-1771.4	-1772.8

Standard errors in parentheses
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Table 26. Freedom House high threshold all 5 imputed datasets

	1: Freedom House high (A)	2: Freedom House high (B)	3: Freedom House high ©	4: Freedom House high (D)	5: Freedom House high(E)
main					
lagFHouseAdiko	2.152**	2.684***	3.035***	3.542***	3.200***
	(0.681)	(0.675)	(0.677)	(0.714)	(0.770)
lagvalues	0.130	1.019	1.384	2.167*	2.783**
	(1.112)	(1.073)	(1.120)	(1.052)	(0.908)
GDP (log)	0.246*	0.260*	0.271*	0.266*	0.199
	(0.101)	(0.111)	(0.112)	(0.112)	(0.110)
School	-0.00164	-0.00138	-0.00201	0.000315	0.00133
	(0.00595)	(0.00619)	(0.00634)	(0.00621)	(0.00588)
Muslim5	-0.514*	-0.617*	-0.525*	-0.575*	-0.510*
	(0.229)	(0.250)	(0.232)	(0.262)	(0.239)
laggini	0.00145	0.00312	-0.000405	0.00178	0.00106
	(0.00420)	(0.00413)	(0.00448)	(0.00409)	(0.00441)

lagoil	-0.0193*	-0.0207**	-0.0205**	-0.0230**	-0.0230**
	(0.00782)	(0.00803)	(0.00767)	(0.00777)	(0.00747)
lagFHouselagvaluesA	3.146*	1.416	2.173	-0.245	-0.964
	(1.391)	(1.222)	(1.427)	(1.301)	(1.136)
lagFHouselagGDP_A	-0.202	-0.168	-0.280	-0.195	-0.0634
	(0.122)	(0.128)	(0.150)	(0.137)	(0.163)
lagFHouseSchool_A	0.00774	0.00595	0.00852	0.00605	0.000639
	(0.00616)	(0.00571)	(0.00763)	(0.00767)	(0.00793)
Constant	-3.037***	-3.534***	-3.578***	-4.094***	-3.884***
	(0.629)	(0.643)	(0.642)	(0.721)	(0.699)
Observations	2809	2809	2809	2809	2809
Pseudo R^2	0.654	0.658	0.648	0.659	0.657
ll	-673.5	-666.2	-684.9	-663.0	-668.6
ll_0	-1946.8	-1947.0	-1946.8	-1947.0	-1946.8

Standard errors in parentheses
$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 27. OLS without outliers and influential observations.

	1: OLS	2: OLS	3: OLS
Values index	1.132***	-0.903	-0.650
	(0.330)	(0.531)	(0.456)
Freedom House	0.754***	0.517***	
	(0.0128)	(0.0186)	
GDP(log)	0.0258	0.0725	0.218***
	(0.0265)	(0.0661)	(0.0591)
School enrollment	0.00995***	0.0197***	-0.00610**
	(0.00146)	(0.00273)	(0.00215)
Ethnic Fractionalization	0.123*	-0.0989	-0.217
	(0.0577)	(0.121)	(0.119)
Military spending	-0.00000782***	-0.00000553**	0.000000470
	(0.000000980)	(0.00000172)	(0.00000159)
Export	0.000000250*	0.000000684***	0.000000347*
	(0.000000103)	(0.000000170)	(0.000000142)
Protestant majority	-0.0628	0.450**	0.410**
	(0.0481)	(0.158)	(0.147)
Muslim majority	-0.236***	-0.0606	-0.587**
	(0.0501)	(0.168)	(0.179)
L.Freedom House			0.726***
			(0.0171)
Constant	0.0887	0.801	0.380
	(0.139)	(0.455)	(0.411)
Observations	2245	2245	2061
r2	0.841	0.411	

Standard errors in parentheses
$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 28. Dynamic probit without ouliers and influential observations

	1: Freedom House (low)	2: Freedom House (medium)	2: Freedom House (high)
main			
Freedom House(lagged)	1.743**	1.852**	3.062***
	(0.630)	(0.696)	(0.837)
lagvalues	-5.468*	-1.950	1.303
	(2.286)	(1.300)	(1.135)
GDP (log)	0.262	0.171	0.203

	(0.166)	(0.115)	(0.123)
School	-0.00740	0.00317	0.00660
	(0.00786)	(0.00535)	(0.00648)
Muslim5	0.00969	-0.234	-0.727**
	(0.200)	(0.150)	(0.233)
laggini	-0.00394	0.00428	0.00257
	(0.00840)	(0.00581)	(0.00433)
lagoil	-0.0249***	-0.0182*	-0.0205**
	(0.00476)	(0.00755)	(0.00778)
lagFHouse2values	4.185	3.492*	0.668
	(2.939)	(1.532)	(1.630)
FH*GDP	-0.0343	-0.0306	-0.0960
	(0.214)	(0.137)	(0.171)
FH*School	-0.000806	-0.00521	-0.000812
	(0.00840)	(0.00703)	(0.00974)
FH*Muslim	-0.236	-0.0418	0.494
	(0.307)	(0.217)	(0.464)
Constant	-0.0211	-1.919**	-3.891***
	(0.703)	(0.621)	(0.702)
Observations	2805	2805	2805
Pseudo R^2	0.676	0.631	0.696
ll	-352.2	-647.4	-591.0
ll_0	-1086.4	-1754.9	-1944.0

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 29. Freedom House with time dummies

	1: OLS	2: Fixed effects OLS	3:GMM
Values index	1.631***	-5.513***	-1.149***
	(0.400)	(0.558)	(0.325)
Freedom House	0.660***		
	(0.0155)		
GDP(log)	0.164***	0.266***	0.140**
	(0.0356)	(0.0742)	(0.0495)
Ethnic Fractionalization	0.0287	-0.508***	-0.138*
	(0.0687)	(0.139)	(0.0698)
School enrollment	0.00193	-0.00624	-0.00558**
	(0.00220)	(0.00353)	(0.00194)
Military spending	-0.00000587***	-0.00000829***	-0.00000267*
	(0.00000126)	(0.00000205)	(0.00000110)
Export	8.05e-09	0.000000967***	0.000000286*
	(0.000000137)	(0.000000203)	(0.000000111)
Protestant majority	-0.00468	1.030***	0.123*
	(0.0622)	(0.179)	(0.0601)
Muslim majority	-0.136*	-0.227	-0.452***
	(0.0654)	(0.192)	(0.0597)
Region81	0.0662		
	(0.0875)		
o.Region81	0		
	(.)		
Region83	0.333***		
	(0.0646)		
Region84	-0.247**		
	(0.0930)		
Region85	0.0241		
	(0.119)		
Region86	0.151		

	(0.0779)		
Region87	-0.0119		
	(0.109)		
Region88	0.167*		
	(0.0760)		
Year==1982	0.128	0.174	0.0760
	(0.121)	(0.111)	(0.0635)
Year==1983	0.204	0.221*	
	(0.121)	(0.111)	
Year==1984	0.369**	0.434***	0.0588
	(0.121)	(0.111)	(0.0636)
Year==1985	0.489***	0.595***	0.106
	(0.121)	(0.111)	(0.0636)
Year==1986	0.592***	0.729***	0.160*
	(0.121)	(0.111)	(0.0637)
Year==1987	0.550***	0.780***	0.238***
	(0.121)	(0.111)	(0.0638)
Year==1988	0.318**	0.582***	0.159*
	(0.121)	(0.112)	(0.0642)
Year==1989	0.269*	0.631***	0.285***
	(0.122)	(0.112)	(0.0643)
Year==1990	0.250*	0.705***	0.303***
	(0.122)	(0.112)	(0.0648)
Year==1991	0.245*	0.731***	0.328***
	(0.122)	(0.112)	(0.0653)
Year==1992	0.223	0.697***	0.260***
	(0.123)	(0.113)	(0.0659)
Year==1993	0.410***	0.725***	0.00975
	(0.122)	(0.113)	(0.0659)
Year==1994	0.376**	0.750***	0.244***
	(0.123)	(0.114)	(0.0660)
Year==1995	0.388**	0.797***	0.238***
	(0.124)	(0.115)	(0.0669)
Year==1996	0.300*	0.822***	0.291***
	(0.124)	(0.116)	(0.0677)
Year==1997	0.407**	0.905***	0.217**
	(0.124)	(0.117)	(0.0682)
Year==1998	0.412***	0.988***	0.281***
	(0.125)	(0.117)	(0.0690)
Year==1999	0.452***	1.049***	0.255***
	(0.125)	(0.118)	(0.0697)
Year==2000	0.469***	1.115***	0.285***
	(0.124)	(0.117)	(0.0685)
Year==2001	0.461***	1.032***	0.211**
	(0.125)	(0.118)	(0.0692)
Year==2002	0.369**	1.024***	0.336***
	(0.126)	(0.120)	(0.0700)
Year==2003	0.882***	1.566***	0.299***
	(0.126)	(0.120)	(0.0705)
Year==2004	0.772***	1.511***	0.304***
	(0.126)	(0.121)	(0.0707)
o.Year==2005	0	0	0.401***
	(.)	(.)	(0.0801)
o.Year==2006	0	0	0.277***
	(.)	(.)	(0.0820)
o.Year==2007	0	0	0.273***
	(.)	(.)	(0.0823)
o.Year==2008	0	0	0.835***
	(.)	(.)	(0.0828)
o.Year==2009	0	0	0.348***

	(.)	(.)	(0.0854)
L.Freedom House			0.813***
			(0.0127)
Constant	-0.617**	4.916***	0.611
	(0.220)	(0.535)	(0.369)
Observations	2326	2326	2617
r2	0.794	0.267	

Standard errors in parentheses

$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 30. Freedom House with time dummies. Dynamic probit

	1: Freedom House (low)	2: Freedom House (medium)	3: Freedom House (high)
main			
Freedom House(lagged)	2.194*	1.594*	2.260*
	(1.011)	(0.802)	(0.880)
lagvalues	-5.496*	-0.565	1.615
	(2.560)	(1.549)	(1.265)
GDP (log)	0.291	0.154	0.171
	(0.213)	(0.130)	(0.121)
School	-0.00593	0.000824	0.00271
	(0.00978)	(0.00597)	(0.00756)
Muslim5	0.178	-0.213	-0.557*
	(0.264)	(0.181)	(0.244)
laggini	0.00832	0.00781	0.00368
	(0.00879)	(0.00578)	(0.00409)
lagoil	-0.0344***	-0.0182*	-0.0231**
	(0.00654)	(0.00818)	(0.00863)
lagFHouse2values	4.518	3.401	0.578
	(3.671)	(1.837)	(1.648)
FH*GDP	-0.0840	-0.0225	-0.0246
	(0.281)	(0.153)	(0.169)
FH*School	0.00737	0.000799	0.00374
	(0.0115)	(0.00813)	(0.0106)
FH*Muslim	-0.609	-0.0910	0.528
	(0.392)	(0.239)	(0.383)
Year==1982	1.738***	1.111***	0.911***
	(0.205)	(0.302)	(0.268)
Year==1983	1.767***	1.434***	0.795**
	(0.209)	(0.251)	(0.284)
Year==1984	1.730***	1.396***	0.995***
	(0.448)	(0.332)	(0.286)
Year==1985	2.063***	1.564***	0.956**
	(0.326)	(0.297)	(0.324)
Year==1986	1.838***	1.228***	0.987**
	(0.225)	(0.268)	(0.309)
Year==1987	3.173***	1.269***	1.082***
	(0.415)	(0.286)	(0.262)
Year==1988	3.009***	1.298***	0.909**
	(0.415)	(0.342)	(0.282)
Year==1989	2.751***	2.093***	1.036**
	(0.347)	(0.284)	(0.357)
Year==1990	3.428***	1.556***	1.002*
	(0.526)	(0.338)	(0.392)
Year==1991	2.198***	1.393***	1.534***
	(0.664)	(0.298)	(0.360)
Year==1992	2.227***	1.683***	0.951**

	(0.600)	(0.383)	(0.365)
Year==1993	1.185***	1.731***	0.783*
	(0.263)	(0.285)	(0.324)
Year==1994	1.612***	1.866***	1.225***
	(0.274)	(0.311)	(0.345)
Year==1995	1.860***	1.710***	1.159***
	(0.205)	(0.272)	(0.328)
Year==1996	2.012***	1.782***	1.230***
	(0.450)	(0.305)	(0.367)
Year==1997	1.964***	1.570***	1.076***
	(0.211)	(0.287)	(0.306)
Year==1998	2.855***	1.614***	1.350***
	(0.464)	(0.303)	(0.345)
Year==1999	2.329***	1.754***	1.197***
	(0.522)	(0.347)	(0.317)
Year==2000	2.501***	2.016***	1.477***
	(0.340)	(0.261)	(0.364)
Year==2001	1.574***	1.634***	1.067***
	(0.344)	(0.274)	(0.301)
Year==2002	2.292***	2.057***	1.396***
	(0.327)	(0.306)	(0.311)
Year==2003	1.974***	1.907***	1.317***
	(0.390)	(0.258)	(0.286)
Year==2004	2.339***	1.684***	1.243***
	(0.347)	(0.262)	(0.271)
Year==2005	2.431***	1.886***	1.236***
	(0.427)	(0.262)	(0.350)
Year==2006	1.686***	1.684***	1.257***
	(0.324)	(0.273)	(0.278)
Year==2007	2.090***	1.566***	1.181***
	(0.199)	(0.274)	(0.267)
Year==2008	4.505***	2.410***	1.565***
	(0.692)	(0.324)	(0.318)
o.Year==2009	0	3.175***	1.397***
	(.)	(0.541)	(0.402)
Constant	-3.121**	-3.953***	-4.615***
	(0.970)	(0.836)	(0.852)
Observations	2713	2809	2809
r2			

Standard errors in parentheses
$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 31. Variance Inflation Factor

Variable	**VIF**	**1/VIF**
GDP_log	6.65	0.150395
values	4.06	0.246033
schoolenro~t	2.99	0.334185
Export	2.73	0.366688
FHouse	2.56	0.391336
Military	1.73	0.576820

Religion5	1.51	0.661037
Religion2	1.39	0.719705
frac_eth	1.31	0.765640
Mean VIF	**2.77**	

Variable	**VIF**	**1/VIF**
GDP_log	8.93	0.112014
schoolenro~t	4.90	0.204151
values	4.65	0.215248
Export	3.24	0.308494
FHouse	2.83	0.353971
Region81	2.61	0.382743
Region88	2.60	0.385115
Region83	2.29	0.436621
Region84	2.15	0.464160
Military	2.15	0.465078
Religion5	2.05	0.488761
Region86	1.98	0.505604
Region87	1.94	0.514685
Religion2	1.82	0.550942
frac_eth	1.43	0.699577
Region85	1.42	0.703629
Mean VIF	2.94	

OLS with non-imputed Freedom House

	1: OLS	2: Fixed effects OLS	5: GMM
Values index	1.800***	-0.627	-0.297
	(0.398)	(0.587)	(0.307)
FHouse3	0.719***	0.367***	
	(0.0163)	(0.0202)	
GDP(log)	0.0696*	0.318**	0.00611

	(0.0321)	(0.106)	(0.0600)
School enrollment	0.00675***	0.0102**	-0.000244
	(0.00185)	(0.00315)	(0.00171)
Ethnic Fractionalization	0.0422	1.327	0.0136
	(0.0963)	(0.887)	(0.0426)
Military spending	-0.00000989***	-0.000000461	-0.000000963
	(0.00000119)	(0.00000225)	(0.00000105)
Export	0.000000243	0.000000215	0.000000226*
	(0.000000125)	(0.000000199)	(0.000000101)
Protestant majority	-0.0697		0.0255
	(0.0575)		(0.0643)
Muslim majority	-0.290***		-0.0584
	(0.0592)		(0.0610)
o.Protestant majority		0	
		(.)	
o.Muslim majority		0	
		(.)	
L.FHouse3			0.832***
			(0.0127)
Constant	-0.0520	-0.335	0.929*
	(0.189)	(0.788)	(0.418)
Observations	1742	1742	1945
r2	0.815	0.228	

Standard errors in parentheses
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Table 32. Dynamic probit with non-imputed Freedom House

	1: Freedom House (low)	2: Freedom House (low)	3: Freedom House (medium)	4: Freedom House (medium)	5: Freedom House (high)	6: Freedom House (high)
main						
lagFHouse3low	-1.457	0.488	0.0495	0.708	2.316*	1.668
	(0.977)	(1.153)	(0.818)	(0.984)	(1.001)	(1.233)
lagvalues	-3.105	-2.037	-0.113	0.161	3.593*	3.488*
	(2.286)	(2.507)	(1.439)	(1.477)	(1.550)	(1.462)
GDP (log)	-0.138	0.118	0.0461	0.0604	0.129	0.0886
	(0.131)	(0.230)	(0.0637)	(0.111)	(0.0940)	(0.119)
FHouse3lowvalues	3.058	0.736	4.490	5.794*	-3.883*	-1.168
	(3.571)	(4.136)	(2.304)	(2.669)	(1.919)	(2.305)
FHouse3lowGDP	0.548**	0.249	0.209	-0.109	0.330*	-0.0797
	(0.174)	(0.280)	(0.118)	(0.175)	(0.133)	(0.197)
School		-0.0119		0.000880		0.00439
		(0.00956)		(0.00568)		(0.00837)
Muslim5		0.428		0.0501		-0.322
		(0.266)		(0.169)		(0.270)
laggini		0.0118		0.0118		0.00701
		(0.0130)		(0.00710)		(0.00552)
lagoil		-0.0347***		-0.0232**		-0.0224*
		(0.00720)		(0.00862)		(0.0103)
FHouse3lowschool		0.0175		0.0176		0.0361**
		(0.0108)		(0.00999)		(0.0133)
FHouse3lowMuslim		-0.667		-0.347		1.197*
		(0.359)		(0.299)		(0.574)
Constant	0.846	-0.882	-1.658**	-2.272**	-4.027***	-4.108***
	(0.823)	(1.205)	(0.641)	(0.737)	(0.909)	(0.846)
Observations	2037	2037	2037	2037	2037	2037
Pseudo R^2	0.771	0.785	0.759	0.767	0.829	0.838

ll	-165.2	-154.9	-296.1	-285.5	-241.0	-227.7
ll_0	-720.2	-720.2	-1226.8	-1226.8	-1409.9	-1409.9

Standard errors in parentheses
$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 33. OLS on Freedom House. With robust standard errors

	1: OLS	2: OLS	3: OLS	4: Fixed effects OLS	5: GMM
Values index	0.421***	-0.0782	-0.0921	-0.675*	-0.105
	(0.0520)	(0.0886)	(0.130)	(0.297)	(0.153)
Freedom House		0.563***	0.517***	0.0723	
		(0.0341)	(0.0346)	(0.0727)	
GDP(log)		0.0182**	0.0443***	-0.00413	0.00602
		(0.00702)	(0.00871)	(0.0378)	(0.0221)
School enrollment			-0.000915	0.000688	0.000188
			(0.000640)	(0.00210)	(0.00103)
Ethnic Fractionalization			0.0974***	0.0387	-0.00535
			(0.0274)	(0.0339)	(0.0104)
Military spending			-0.00000228***	-7.31e-08	0.000000377
			(0.000000321)	(0.000000841)	(0.000000329)
Export			4.70e-08*	0.000000109*	2.39e-08
			(2.13e-08)	(4.81e-08)	(3.05e-08)
Protestant majority			0.00463		-0.00210
			(0.0157)		(0.0130)
Muslim majority			-0.0327		-0.0421
			(0.0236)		(0.0244)
o.Protestant majority				0	
				(.)	
o.Muslim majority				0	
				(.)	
L.Freedom House					0.699***
					(0.0353)
Constant	0.718***	0.292***	0.201**	1.064***	0.249
	(0.0261)	(0.0416)	(0.0655)	(0.232)	(0.184)
Observations	1915	1742	1742	1742	1945
r2	0.0181	0.422	0.448	0.0277	

Standard errors in parentheses
$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$