

Master thesis for the Master of Economic Theory and Econometrics degree

Democracy and Property Rights

A theoretical and empirical analysis on the effects of political regime type on property rights arrangements

The seal of the University of Oslo is a large, faint watermark in the background. It features a circular border with the Latin text 'UNIVERSITAS OSLOENSIS' at the top and 'MDCCLXXXII' at the bottom. In the center of the seal is a figure of a woman in classical attire, standing and playing a harp.

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Preface

This Master Thesis was written mainly during the summer of 2007. I was fortunate enough to receive the “Fritt Ord Studentstipend” (50 000 NOK) through the Norwegian Centre for Human Rights, UiO, and I wrote most of the thesis at that Centre, while completing it at the Department of Economics, UiO, in the autumn of 2007. I would direct a very large thank you to NCHR and the Fritt Ord institution for providing me with the financial opportunity and the surroundings to focus intensively on writing this thesis.

When it comes to the outline and content of the thesis, I would very much like to thank my supervisor at the Department of Economics, Kalle Moene, for giving me very valuable advice and suggestions to improvements regarding the thesis. His positive encouragement was also an important factor for me during the process of writing this thesis. I also gained from feedback by the participants at the NCHR “Monday Seminar” on August 20th, where I presented the theoretical framework and some of the empirical findings. I would like to thank the participants at the seminar, and especially all of those who commented.

Last but not least, I would like to thank my family and girlfriend, whom I did not spend enough time with this summer. Especially I would like to thank Carl Frederik for patiently going to the kindergarten almost every day, knowing that I had to write a thesis in economics rather than staying home all day and play.

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List of abbreviations and variable names (*)

ACLP	Alvarez, Cheibub, Limongi, Przeworski
col	Colonial ruler dummy*
dem	Political regime; degree of democracy*
ene	Energy production in kilotons of oil equivalents/GDP*
FDI	Foreign Direct Investment
FE	Fixed-Effects
FHI	Freedom House Index
GDP	Gross Domestic Product
gdc	GDP per capita (PPP)*
G&L	Gwartney and Lawson
GMM	Generalized Method of Moments
ICRG	International Country Risk Guide
IV	Instrumental Variable
ldu	Logarithm of (regime duration +1)*
PAP	People's Action Party
PR	Property Rights
Pro	Property rights protection*
PCSTS	Pooled Cross Section – Time Series
pop	Population*
PPP	Purchasing Power Parity
reg	Region dummy*
rel	Main religion dummy*
RPF	Rwandan Patriotic Front
tim	Linear time trend (year)*
WDI	World Development Indicators
WGI	World Governance Indicators

Summary

How does the type of political regime in a country affect the protection of property rights in that same country? In this study, political regime type is defined mainly along the dimension of *degree of democracy*. There exists no single, coherent theoretical framework that can give precise predictions on the answer to this general question. However, there exist several (partial) theories and models drawn from economics and political science that can give indications on some of the mechanisms that might be at work. This study sums up five arguments on the potential effects of political regime type on property rights protection. Two of them relate to the general main research question above, and the three others are more specific in the sense that they try to outline interaction effects, the role of context, or further specify the political regime variable. No conclusive a priori prediction can be made on whether democracies or authoritarian regimes protect property rights better in general, since different arguments point in different directions. One type of argument points to the opportunities for the relatively poor masses under democracy to grab and redistribute property from the wealthy elites, whereas another type of argument points to the threat to property rights emanating from authoritarian rulers and their backers, when these are not checked by alternative power centers, democratic institutions (like elections) and democratically guaranteed civil liberties and political rights for the populace. However, other and more specified predictions can be drawn from theory when we identify nuances for example related to different actors identified and involved, the specific nature of property rights alteration, different specifications of preferences for political elites and differences in socio-economic and political context.

In the empirical part of the thesis, the different hypotheses deduced in the theoretical part are tested. A pooled cross country - panel approach is utilized, and data are collected from several different sources. Different operationalizations of both political regime type and property rights protection are used to check the robustness of results. In general, democracy is found to have an overall positive effect on the protection of property rights, and the estimated effect is relatively large. This claim is clearly supported when using OLS with Panel Corrected Standard Errors, and is also supported, albeit to a somewhat weaker degree, by Fixed-Effects analysis and Instrumental Variable analysis. When it comes to the IV analysis, I develop a new and very interesting instrument for political regime type, based on Samuel Huntington's observation that democratic regimes have come clustered in temporal waves, globally. I also test the more nuanced hypotheses developed in the theoretical section. A few examples of results from the empirical analysis are listed below:

- 1) The effect from a higher level of democracy on property rights seems to be non-linear, albeit always positive, with a larger effect for already relatively democratic countries.
- 2) A high degree of income inequality is detrimental to protection of property rights, but only in democracies.
- 3) Young democracies are worse at protecting property rights than older democracies
- 4) Parliamentary democracy is estimated to have a positive impact on property rights, when one compares it with presidential democracy.
- 5) Authoritarian rulers who expect to remain in power for a long time or who expects hereditary succession protects property rights relatively better than other authoritarian rulers.
- 6) There are large differences in property rights protection among different types of authoritarian regimes: Military regimes seem to be the worst and monarchies the best at providing secure property rights.
- 7) Authoritarian rulers who face an internal security threat, for example a rebel movement or militia, protect property less well than those who mainly face an external security threat, for example a neighboring country and its army.

1. Introduction

1.1 Background and research question

How does democracy affect protection of property rights in a country? British enlightenment philosophers like John Stuart Mill were already in the nineteenth century addressing the possible economic consequences of universal suffrage for a society like Britain in its early industrialization phase, where the masses of the people had to be considered as poor and uneducated. A common view at the time was that such political change would have a strong impact on the existing property rights arrangements in society. With democratization, one could expect redistribution of property, or even collectivization. Also Karl Marx famously became a proponent of the view that “true democracy” would go together with upheavals in existing property rights arrangements. The political regimes of the day, representative for only a segment of the populace, were seen as guarantors of private property rights and capitalism more widely. Power to the people would imply the abolishment of private rights of productive means. In terms of the language used in this study: Democracy would have a negative impact on society’s existing property rights arrangements.

However, there exist other arguments on the effect of democracy on property rights. Some have argued that democracy to the contrary actually enhances private property rights. North and Weingast (1989) illustrated the role of democratic institutions in securing property rights in the United Kingdom, and North (2000) have compared the British experience with the more absolutist Spanish political history from the Habsburg and Bourbon eras, where private property protection was less well enforced. As indicated above, even the British political regime after the Glorious Revolution in 1689 cannot be described as truly democratic by today’s standards, since only the upper socioeconomic segments of society could vote and be represented in Parliament. However, it is not hard to argue that Britain was *more* democratic than most of its contemporary European counterparts, with at least segments of the middle class represented in political decision making, and also exhibiting an institutionalized system of checks and balances. British protection of private property rights also had to be considered as superior to its European contemporary counterparts. Is this correspondence between democracy and property rights generalizable, and is there a causal relationship?

The issue addressed in this study, as seen above, is hardly a novel one. The least contentious issue in the debate on the relation between political regimes and property rights is that in larger societies than small hunter-gatherer societies, any form of government is better at protecting property rights for individuals than no government. Even though there are numerous examples of the state itself engaging in property violation, the threat to property in a

“state of nature” from other individuals have been recognized for a long time, and this is illustrated vividly by Hobbes (1996). The main point is that functioning property rights “is only possible as the result, first, of the development of a third party to exchanges, namely government, which specifies property rights and enforces contracts” (North, 2000:49). *But what about possible differences in effects on property rights between relatively democratic and relatively authoritarian forms of government?* Political scientists, economists and economic historians have engaged in this debate with vigour and whereas some claim that “[T]he idea that democracy protects property rights is a recent invention, and we think a far-fetched one” (Przeworski and Limongi, 1993:52), others have argued that the regime best securing property rights “is a modern democratic society with universal suffrage” (North, 1990:109).

The particular research question addressed in this study is a specification of what Weingast calls one of the central questions political economists need to answer: “[W]hat forms of political institutions are compatible with economic institutions that are consistent with effective markets. In the language of modern economics, this requires that markets be the incentive-compatible choice of politics” (Weingast, 1997:43). The more specified research question addressed in this study is: *How does political regime type affect private property rights arrangements in a country?* Political regimes are here mainly classified along one dimension; the democratic-authoritarian continuum, but more specific classifications will also be utilized. The research question is dealing with the possible causal effect of one type of institutional arrangement on another. Identifying causality between such macrostructures is difficult business, and in empirical investigation one has to deal with identification problems, endogeneity problems and problems of omitted relevant variables in the analysis. Another difficult task is to identify the relevance of context. There is no reason to believe that the interaction of two broad institutional variables like political regimes and property rights is independent of social, economic and political context.

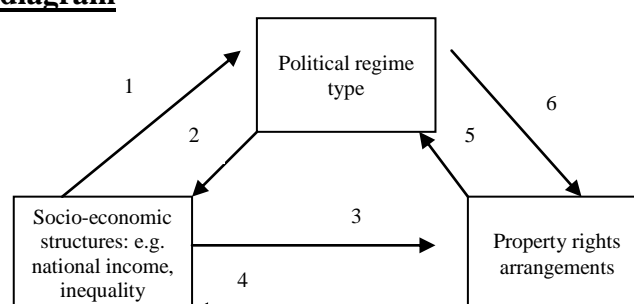
One can identify three main hypotheses related to the main research question. H_1 reads: *Democracy affects security of property rights negatively*. The other, H_2 , claims: *Democracy enhances security of property rights*. The third option, H_0 , states: *Democracy has no effects on security of property rights*. This agnostic view is sketched up by Goldsmith: “Popular leaders, like Salvador Allende in Chile, sometimes move to confiscate private holdings, while authoritarian leaders, such as Allende’s successor General Augusto Pinochet, find it possible to uphold claims to property even as they refuse to share power. There is no

particular association, according to this viewpoint, between the freedom to join in collective decisions and the freedom to use and dispose of property” (Goldsmith, 1998:161-162).

1.2 Causality issues

According to Cervellati et al. “there exists an increasing awareness that economic and political institutions themselves evolve endogenously and are affected by economic forces and long term development.” (2005:1). Here we are interested in a potential determinant of the “economic institution” of property rights arrangements, namely political regime type. However regime type is itself an endogenous variable. One therefore has to disentangle a probable reciprocal causal relationship between democracy and property rights when seeking to answer the research questions of this study, but one also has to take into account that these institutional variables can be both causes and effects of socio-economic structures.

Figure 1.1: A causal diagram



To elaborate somewhat on Figure 1.1, we are mainly interested in causal arrow 6. However, we cannot neglect the possibility of “reverse causation”. The argument that property rights is a fundamental determinant of political and civil liberties has been promoted by for example Richard Pipes, who claims that “property gives rise to freedom and ... its absence makes possible arbitrary authority” (Pipes, 1999:xiii). His main hypothesis is that “while property in some form is possible without liberty, the contrary is inconceivable” (Pipes, 1999:xiii). Milton Friedman also suggests that capitalist institutions like those that guarantee private property rights are *necessary* prerequisites for political freedom (Friedman, 2002:7-21). According to Friedman and Pipes then, this study will suffer from what econometricians would call an endogeneity bias. David Weimer (1997:9-10) also proposes three mechanisms through which well-functioning property rights might enhance democracy, but most of the argumentation relies on increases in welfare and economic equality as intermediary variables. If it is actually so that property rights positively affect the degree of democracy in a society and that democracy again positively affects private property rights, we have a circular causal structure with positive feedbacks. Some would label this a case of “institutional complementari-

ties” with the economic institution of private property rights and democracy reinforcing each other.

When studying the effect of political regimes on property rights empirically, one also needs to control for other variables systematically affecting both these institutional categories. Different studies from both political science and economics suggest that there are important socio-economic determinants of institutions. Mark Gradstein reflects on the role of economic factors and endogeneity of property rights: “[i]ndividual wealth to a large extent determines the attitudes towards the enforcement of property rights and, consequently, the distribution of wealth determines the political outcome in this regard.” (Gradstein, 2007:253). When it comes to the determinants of democracy, one starting point is Seymour Martin Lipset’s seminal article from 1959, and other works following in the “modernization theory” tradition. Very stylistically summed up, large parts of the literature promote that high levels of national income, urbanization, schooling and a large middle class increases the probability of having a democratic political regime, and also institutions that guarantee private property rights. Other historical variables could also be of importance. Take one example, British colonial rule, which is claimed to affect degree of democracy positively, and is also likely to affect the legal structure of a country (Djankov et al, 2002), which again is relevant for protection of property rights. These arguments suggest that causal arrows 1 and 3 should not be neglected. When it comes to causal arrows 4 and 2, Acemoglu et al (2001) have showed substantial economic effects from “institutions” mainly focusing on those institutions relating to property rights protection, and several studies have investigated the possible economic effect of democracy on growth (Knutsen, 2006a:228-234). Socioeconomic structures are also endogenous variables in the long run,

The remaining question is then: Do political regimes matter for property rights structures; and if so how? There are several fallacies that have to be understood and avoided before concluding that political regimes have no relevance. The first fallacy is that since we might have reverse causation, any correlation between political regime and property rights can be attributed to this causal effect, and we should not believe that it is political regime that affects property rights. The second is that since we do not see any necessary relationship between the two concepts, or maybe because we do not have a strong enough linear average effect in our data-sample to reject a null-hypothesis, political regime type does not matter empirically for property rights.

2. Concepts, definitions and debates

2.1 Democracy

2.1.1 *Alternative views of what democracy is*

Democracy is a contested concept. This goes for both its analytical and operational definitions. I have earlier reviewed and discussed the main positions on what democracy is and how it should be measured. (Knutsen, 2006a and 2006c). I have argued that a so-called “substantial definition” of democracy is the correct way to capture what democracy is (Knutsen, 2006a). A substantial definition does not have a particular set of institutions, like elections, as its point of departure, but rather links democracy to an underlying idea. The proponents of such a view claim that institutions in themselves are not equivalent with democracy. Institutions like elections or constitutionally guaranteed freedom of speech only contribute to democracy as long as they are enhancing an underlying and less formal concept. I will use David Beetham’s general definition of democracy: “*The core idea of democracy is that of popular rule or popular control over collective decision making*” (Beetham, 1999:90). This again implies that authoritarian governments are related to the lack of popular control over collective decision making. To this criterion, another one of political equality among citizens has to be added. Democracy “is realized to the extent that such [public] decision-making actually is subject to the control of all members of the collectivity considered as equals” (Beetham, 1994:28). “The ability of the people to exercise control over the decision making that establishes the rules and policies that regulate and direct the public sphere of society is the distinguishing characteristic of democracy” (Knutsen, 2006a:22). Further, still following Beetham, guaranteed political rights and civil liberties are necessary prerequisites for democracy. “The freedoms of speech, association, assembly and movement, the right to due legal process, and so on, are not something specific to a particular *form* of democracy called ‘liberal democracy’; they are essential to democracy as such, since without them no effective popular control over government is possible” (Beetham, 1994:29). This definition’s advantage over institutionally based definitions is that it does not miss “the political reality behind the formal and observable structures of government” (Grugel, 2002:22).

When it comes to proponents of institutionally based definitions of democracy, like for example the one Adam Przeworski and co-authors have promoted, based on the existence of free, competitive elections (see for example Przeworski et al, 2000:13-35). One of the rationales underlying such a definition is “the need for conceptual clarity and to move beyond “intuition” towards stringent empirical measurement. The conceptual definition is therefore chosen to a certain degree on the basis that it is easy to operationalize” (Knutsen, 2006a:21).

This view has its origins in the famous democracy theory presented by Joseph Schumpeter in the early 1940's, and his critique of "The Classical Doctrine of Democracy" (Schumpeter, 1976:250-268) with its understanding of democracy related to the vague concept of the "popular will". Schumpeter defined democracy as "that institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people's vote" (Schumpeter, 1976:269).

The choice of democracy definition, substantial or institutionally based, might represent a difficult trade-off between validity on one hand and precision and stringency on the other (Knutsen, 2006b). However, by starting with a conceptual definition of democracy as degree of popular control over public decision making, one can then continue with a discussion of which institutional arrangements that are needed, or that generally further this concept, empirically. Robert Dahl (1971) provided one famous such checklist of institutions in his influential book "Polyarchy", but there are several alternative specifications. If choosing such a path, one does not need to part with the intuitive idea of democracy as related to the people's political power over public decision making¹, and one can then move on to more concrete and precise measurement by adding layers of assumptions on empirical requirements for the concept to be empirically realizable. The choice of a substantial democracy definition also means that we have to take a broad view when analyzing the effects of regime type on preservation of existing property arrangements. We will have to look at how broad popular participation and control over politics, as well as a generally dispersed political power distribution in society affect property rights; it does not suffice to analyze the effects of elections.

2.1.2 How to measure democracy

Defining democracy is difficult, but measuring it is maybe even more so. There are several indicators of democracy on the market. Given the "substantial" and relatively wide definition of democracy chosen here, the operationalization should also be relatively wide, and capture the different democracy-enhancing aspects deduced from a discussion related to the analytical definition. First of all, since the concept is continuous, the measure should be equally so. Second, one should not only focus on existence of formal institutions like elections, but also their practical implementation and functioning. The measure would therefore need to be based on a certain degree of subjective evaluation. Furthermore, the definition implies the importance of political rights and civil liberties, and these should therefore also be captured by the measure. Although not without its problems (subjectivity bias, incorporation of policy

¹ Note that I do not use the concept of "popular will" or alternatively "collective preference", which was so thoroughly criticized by for example Schumpeter (1976) and Kenneth Arrow (1963).

outcome-related aspects and change in coding practice over the course of time (Strand, 2007)), I have argued that the Freedom House Index (FHI) is the most appropriate democracy indicator available, given that one wants comparative data on a global time scale over a substantial time span (Knutsen, 2006a and 2006c). The FHI consists of 25 check questions², 10 on political rights and 15 on civil liberties, leading to two different indexes, both ranging from 1 to 7. In this study, the “FHI-index” refers to the (unweighted) average of these two indexes. The Polity-measure of democracy serve as an adequate alternative democracy measure, with its main limitation being that it does not include civil liberties in its scoring procedure, and that it gives a relatively large weight to checks on the executive power (Knutsen, 2006a). Both the FHI and Polity measures will be used in the analysis in chapter 4.

The main validity problem of using the FHI-index in this study is probably the incorporation of protection of property rights in the scoring procedure. The FHI-measure actually contains an indicative check question of the degree of property protection in a country, which makes up 1 of 25 main check-questions. To be more specific it constitutes 1/15 of the potential score on the civil liberties index. This of course leads to a small positive bias between the democracy and property rights measures used, if we hold onto the claim that these two concepts should be kept analytically separated. The check question from Freedom House is a dichotomous measure, with a “1” designed to countries assigned a “Yes” to: “Do citizens have the right to own property and establish private businesses? Is private business activity unduly influenced by government officials, the security forces, political parties/organizations, or organized crime?” (Freedom House, 2006)³. Charles Tilly discusses how for example Jamaica got a degraded score on civil liberties because of violence and crimes to private property (Tilly, 2007:4-6).

2.2 Property rights

2.2.1 *What property rights are*

The most important types of property are land, personal possessions and so-called intellectual property. Property rights are then referring to a right of ownership to these types of

² For the complete list of check-questions, see Freedom House (2005a:5-8). The political rights questions are divided into three subgroups: Questions on A) the electoral process, B) political pluralism and participation, and C) functioning of government. The civil liberties questions are divided into four subgroups: D) freedom of expression and belief, E) associational and organizational rights, F) rule of law, and G) personal autonomy and individual rights.

³ For scoring purposes, the question is broken down into several more specific subquestions: A) Are people legally allowed to purchase and sell land and other property, and can they do so in practice without undue interference from the government or nonstate actors? B) Does the government provide adequate and timely compensation to people whose property is expropriated under eminent domain laws? C) Are people legally allowed to establish and operate private businesses with a reasonable minimum of registration, licensing, and other requirements? D) Are bribes or other inducements needed to obtain the necessary legal documents to operate private businesses? E) Do private/nonstate actors, including criminal groups, seriously impede private business activities through such measures as extortion? (Freedom House, 2006)

property for individuals, and in some instances groups. To be more specific on intellectual property rights, these are referring to an individual or group's right to own ideas, inventions and creations. I will focus on the two former types of property, land and personal possessions, and largely leave out intellectual property from the discussion. According to Wikipedia "[A] right of ownership is associated with property that establishes the good as being "one's own thing" in relation to other individuals or groups, assuring the owner the right to dispense with the property in a manner he or she sees fit, whether to use or not use, exclude others from using, or to transfer ownership" (http://en.wikipedia.org/wiki/Property_rights). This implies that property rights can be considered a "bundle of rights" that include control over the usage of the property, the right to exclude others from the relevant property, the right to sell or transfer the property, as well as a right to the goods that are generated by ones property. David Leblang gives a more simplified notion of property rights: "To say that an individual has property rights over something simply means in a legal and practical sense – that an individual can say that a thing belongs to him and others will act accordingly" (Leblang, 1996:7).⁴ I will not go deep into the philosophical discussion on the origin and basis of property rights. The most common view on property rights is that they are socially constructed phenomenon that comes into place when there exists a state apparatus, or other hierarchical forms of government that can guarantee property and construct a system of rights that are related to property transactions. The concept of "rights" is logically empty if no one has the obligation to guarantee these rights, and government is the only possible guarantor. Another different view is associated with John Locke (1988), who sees property rights as natural rights existing prior to the formation of any social contract or state apparatus.

Economists have focused on property rights mainly because of their expected effects on the wider economy. Property rights are seen as a key institutional feature because they provide actors with proper incentives in economic life, and well-structured property rights therefore enhance efficient resource allocation in an economy. Property distribution of course also affects income equality relatively directly. Lately, many economists and political scientists have focused on the effects of property rights on economic growth. In general, property rights enhance economic growth because they provide incentives for production and exchange and also accumulation of human capital and technological development. The underlying mechanisms are first that property rights reduce transaction costs, for example through

⁴ See also David Weimer (1997:3-4) for a good discussion on the definition of property rights. Weimer further discusses important economic characteristics of property rights, and he focuses on clarity of allocation, cost of alienation, security from trespass and credibility of persistence (Weimer, 1997:4-8).

making assets measurable and economic activity easier to monitor, and second that property rights enhance security related to economic activity and thereby stabilize expectations (Leblang, 1996:7-10). The key insight is that property rights make various agreements between different economic actors easier to enforce, and the actors can therefore dare engage in economic transactions that eventually could make the economy prosper.

One should however be careful of landing at strong a priori conclusions, both when it comes to normative statements about the desirability of stability of existing property rights structures and especially when it comes to the empirical effects of stability of property rights. We need to dissect and nuance the phenomenon of property rights alteration before concluding. Consider for example a hypothetical society where the king owns all property, and a land reform is discussed. Will an alteration of status quo here be an evil, considered normatively? This clearly depends on which normative theory one relies on, and many people's normative intuition would probably support alteration of property rights in the hypothetical society described above. Will the economy in the hypothetical society prosper more if the property alteration is conducted, or not? What we need is thorough specification of concepts, an understanding of the various ways property rights can be altered, and then a close empirical investigation of specified hypotheses.

2.2.2 How can property rights be altered

Analytically, one can distinguish between different ways of altering existing property rights. First off all one should notice that the already existing property rights regimes can be extremely different from country to country, for example when it comes to wealth concentration. Another important point is that these different modes of alteration might have very different causes and effects. I am interested in nuancing because it can shed further light on *how* political regime type is expected to alter property rights. One can point out several dimensions through which it is possible to nuance the concept of "property rights alteration". The first important dimension (A) is the contrast of property alteration by legal means, for example land-reform legislation, and alteration of property by extra-legal means, like for example theft. Whether property rights are altered by "rule of law" is interesting for this study because there is a possibility that different political regimes alter property rights differently. Given that there is a correlation between democracy and rule of law (this will be discussed later), one hypothesis could be that democracies in general tend to alter property rights through legislative means rather than extra-legal measures. Another dimension (B) is whether property rights are altered at a particular point in time as a one-time event, or if they are altered through a continuous process. Land reform, debt cancellation and collectivization

can be examples of the first, and a society where theft is prevalent, ongoing hyperinflation and high taxation are examples of the second. This dimension is important for example when understanding expectations and thereby among others investment decisions in a country. The third important nuance is (C) identifying the types of actors that are involved in the alteration of rights to property. From whom to who is property transferred? Is the state involved, or only private actors? State induced collectivization and taxation (even if the redistributed of tax revenues goes to private actors) are examples of state involvement in property transfers, whereas theft need not be. Is property transferred from relatively rich to poor, or is it the other way around. This dimension is of large relevance when hypothesizing about the role of political regime type on property rights: Are democracies expected to transfer property from relatively rich to relatively poor? Are authoritarian regimes involved in redistribution from the populace to political elites or the groups that support them? Will the state tend to confiscate more in democracies or authoritarian regimes?

It is important to go beyond the formal property rights arrangements described in constitutions and other laws when measuring the degree of property rights security in a country. The focus should be on real-world enforcement of such rights. Even though formal legal structures are important, looking solely at texts rather than seeking to measure actual practice, can be highly misleading. Consider for example the case of Zimbabwe which “has a constitution forbidding the confiscation of land without compensation” (Anderson and Huggins, 2003:xi), but this has not been the followed practice over the last years from the Mugabe regime’s side. One way to substantiate the discussion and enlighten our understanding of the phenomena is by listing the more concrete ways in which property rights can be altered. Such a list could include theft, confiscation, expropriation, destruction or redistribution after war, debt cancellation, hyperinflation, heavy taxation with subsequent redistribution, formalization of property rights where there earlier existed only informal rights, land-reform, collectivization and nationalization. The list is probably not exhaustive. There are some ways in which actors can influence the distribution and security of property rights, which are not often thought of as related to property rights on the list. One such example is “irresponsible” macroeconomic policies leading to hyper-inflation, which works as a de facto way of eroding private property, often shifting resources to political elites and others. If the government has lent assets in the local currency, then creating hyperinflation is a way to wipe out public debt, but in the process destroying domestic private savings (Olson, 2003).

3. Theoretical considerations

3.1 How regime type affects property rights: Five arguments

I will in this section sketch up five different arguments, seeking to establish how political regime type *might* affect property rights in a nation. The first two arguments deal with more or less general proposals on why one of the two regime types (democracy and authoritarian rule) are better or worse at protecting property rights. The last three arguments deal either with the importance of context for the proposed effect of regime type on property rights, or seek to specify the political regime variable further than the authoritarian-democratic dichotomy. I will present the arguments academic history, clarify their logical structure, and refer to empirically relevant examples. I will also present relevant counterarguments.

1) Poor masses as a threat to private property rights in a democracy

Box 3.1: Sketch of the argument's logical structure

P1: Democracy means political power to the majority of the population (through voting)

P2: The majority of the population is relatively poor

P3: Voters are maximizing their own income

C: Democracy will lead to massive redistribution of property from landholders, capitalists and other rich elites to the poor majority

Historically, as mentioned in chapter 1.1, democratization of Western industrializing societies were seen by among other British enlightenment philosophers and Marxists as a “threat” to the existing private property distributions and other existing economic arrangements in those capitalistic societies. Actually, for some, like David Ricardo, the threat to property rights from universal suffrage was *the* main argument against democratization. Ricardo found it necessary to “deprive those of the elective franchise against whom it could be justly alleged that they considered it in their interest to invade [property rights]” (Ricardo cited in Bethell, 1998:336). Przeworski and Limongi (1993) revisits the debate on the economic consequences of democracy from the nineteenth century, and establishes that the right to vote as well as freedom of organization was commonly seen to hamper the economy, because of their perceived adverse effects on private property rights. “Conservatives agreed with socialists that democracy, specifically universal suffrage and the freedom to form unions, must threaten property” (Przeworski and Limongi, 1993:52).

The argument is however not a purely historical one, but has relevance also in today's debate, especially when it comes to effects of democratization in developing countries. Many observers are worried about either imposed democratization or speedy democratization, fearing the consequences this might have for the political economic structure of the society, for example when it comes to property rights arrangements. Political economic models

can easily be constructed that would give predictions in line with this claim. Consider the simple median voter model in a society with income inequality. Assume that the upper socioeconomic strata, say for example the upper 1/6, earlier had the opportunity to choose the country's government, and that in a given year this is unexpectedly changed by a democratic revolution after which the whole populace is enfranchised. If voters are income maximizers, and income redistribution is the only dimension of politics in the model, widespread redistribution to poorer population segments or heavy taxation would follow in order to satisfy the preferences of the median voter, if no other political mechanisms were at work. The premise of the argument presented here stated in a very general way is that "the allocation of resources which individuals prefer as citizens does not in general coincide with that at which they arrive via the market" and further that "[D]emocracy in the political realm exacerbates this divergence by equalizing the right to influence the allocation of resources" (Przeworski and Limongi, 1993:53). In the language of political economy: "if the median voter is decisive and if the market-generated distribution of income is skewed downward, as it always is, majority equilibrium (if one exists) will call for a greater equality of incomes" (Przeworski and Limongi, 1993:53). One could generalize the claim, and say that any group that constitutes a majority in a democracy could, by voting into power a government that represented their interests, enforce redistribution from minorities to themselves. This was already anticipated by the American founding fathers: "Madison, in particular, was convinced that in a democracy where majority rules, minority factions were of little threat, but he worried about the potential for democratic majorities to take from minorities" (Anderson and Huggins, 2003:55). If we use a substantial definition of democracy that incorporates different civil liberties, we also have to look at how characteristics of democracy outside of the electoral channel might affect property rights through redistributive pressures from the poorer classes. Freedom of organization is one of the most important civil liberties, and outside of political parties, trade unions is one of the most heavily regulated forms of organizations in authoritarian societies, lacking freedom of association. Some radical trade unions have historically had the aim of a comprehensive redistribution of capital in the workplace from current owners to laborers. This argument points to a potential negative effect of one of the traits of democracy on property rights. According to Warren Gramscian radical unionism's "larger objective – the extension of worker job control – is incompatible with the basic imperatives of private ownership of productive capital" (Gramm, 1981:367).

What about the possible role for authoritarian government in protecting property rights then? Without going too deep into the role of class in politics and political coalitions,

the basic assumption is often that we will find some kind of right-wing authoritarian regime in power, protecting the property of upper-middle or upper classes. These kinds of dictatorships are often considered to have strong ties to the military, or even to be military rule of some sort. In the words of Carles Boix: “Conservative politicians and the military intervene to sustain the property rights of capitalists” (Boix, 2003:16). One area of the world where this model has been especially relevant is Latin America, with its string of right wing military dictatorships in the 60’s and 70’s, intervening to secure property and positions of the upper strata of these countries’ societies. O’Donnell (1973) labelled this form of regime “bureaucratic authoritarianism”, and the threats to existing private property arrangements were considered to be the landless poor or the workers in urban industries, converging around socialist political groupings. “The strong man” was seen as a necessary mean to prevent these groups from taking power, for example in Pinochet’s Chile, and under military rule in Brazil (1964-1985) and in Argentina (1976-1983). Marx had earlier labelled the rule of an aristocratic strongman on behalf of the bourgeois classes as “Bonapartism”, drawing on imperial French history. Przeworski and Limongi revisits Marx’ argument: “According to his [Marx’] analysis, democracy inevitably “unchains the class struggle”: The poor uses democracy to expropriate the riches; the rich are threatened and subvert democracy, typically by “abdicating” political power to the permanently organized armed forces. As a result, either capitalism or democracy crumbles. The combination of democracy and capitalism is thus an inherently unstable form of organization of society.” (Przeworski and Limongi, 1993:52)

There is one counter-argument to the claim that authoritarianism as such will insulate an existing property rights regime from redistributive activities to the benefit of the poorer masses. If we look at the historical experiences of countries that followed the “Marxist-path”, they tended, at least according to the commonly most accepted definitions of democracy, to not become democratic, but rather what Boix (2003) calls “Left-wing authoritarian regimes”. Collectivization of private property did therefore not go hand in hand with democracy, as Marx envisaged, but rather with a specific form of authoritarian regimes that at least in saying followed Marxist principles. We will not go into the historical debate over why countries with a Marxist revolutionary regime like the Soviet Union and Mao’s China became regimes of an authoritarian character. Nevertheless, these regimes, which up until recently constituted a large chunk of the world’s countries sought to follow one of the main prescriptions of Marx’ principles, and enforced collectivization of private property, thereby de facto leading to a causal relationship between authoritarian Marxist rule and alterations of initially existing private property arrangements. According to Marxism “[E]qualization of

productive resources should take the form of socializing the means of production, so that each person has equal participation in collective decisions about the deployment of productive assets, made at the level of either individual firms or national economic planning” (Kymlicka, 2002:176). From Marxists’ point of view, this was the means to ensure what was considered one of the ultimate normative means of social organization, but what is relevant in this context is that this lead to a negative causal effect from what was at least by today’s observers considered as a specific type of authoritarian regime on private property rights. The argument can to some extent be generalized, in terms of type of authoritarian regime. We need perhaps not limit ourselves to Marxist authoritarian regimes, when looking at authoritarian regimes that would be prone to collectivize or nationalize property, but look more generally “left-wing authoritarian regimes”. The political economic literature, using the median voter model, predicts that democracy in countries with an initially skewed income distribution will generate widespread redistribution through political channels. However, redistribution, as well as collectivization of property, might also be aggressively promoted by authoritarian regimes with a left-wing ideology and a popular backing in poorer segments of the population. Venezuela under Hugo Chavez might be one example of a non-Marxist left-wing regime that has conducted nationalization of private property (especially from foreign oil-companies). Even though the dividing line between democracy and authoritarianism is arbitrary, and degree of democracy is better measured along a continuum than by a dichotomy, there are arguments to now classify Venezuela as at least semi-authoritarian. Freedom House scores the country as “Partly Free” with a score of 4 on both Political Rights and Civil Liberties, on scales from 1 to 7 (Freedom House, 2007).

There are other counterarguments to why democracy will lead to massive taxation and redistribution. One mechanism is that the expectation formed by the new democratic regime that wide-ranging attempts at redistribution from the old political and economic elite will lay the incentives for the latter to reinstitute authoritarianism in order to preserve their wealth, which again induces the former to let the old elite keep their assets. The “leave the economic assets alone” aspect of democratization processes was highlighted by scholars such as O’Donnell, Schmitter and Karl, constituting the “transition approach” in democratization studies (Grugel, 2002). They noted that democratization would often follow from either an explicit or implicit “pact” between moderates in the old regime and moderate democratic reformers, where the former stepped down from political office against the promise from the latter to not expropriate the former’s economic assets. Southern Europe, Latin America and South Africa provide empirical examples. This type of mechanism is also highlighted by

theoretical studies as those of Acemoglu and Robinson (2006) and Boix (2003). The latter finds that newly established democracies in general have a low survival probability in unequal societies, but one could argue that foresighted democratic leaders and electorate could increase the probability of survival by not alienating the wealthy elites: “If the democratic government attempts to reform the distribution of property or even to raise taxes to satisfy popular demands, it risks a reactionary backlash” (Boix, 2003:220), even though *not* redistributing might increase the probability of another democratic government being elected. Another argument is that even though poor, the majority does not necessarily *want* the kind of large-scale redistribution assumed above. There might be multiple reasons for this, but there exists empirical evidence from the World Values Survey that poorer voters do not prefer strong redistribution policies in several societies (Huber, 2006). The last criticism points out that most democracies do not function like the theoretical predictions of the median voter model. One interesting argument comes from political scientist Arend Lijphart (1999), who points out that several democracies do not follow a “Majoritarian” model, but are “Consensus democracies”, where rule by and for the people is not rule by a majority, but rather “by as many people as possible” (Lijphart, 1999:1-2). Checks and balances, broad agreements and consensus are the characteristics of these democracies, rather than majority rule. Hence we would not expect the same degree of violation of minority interests to the advantage of the majority as the median voter model predicts⁵.

The relevance of argument 1 might depend crucially on the nature of the political, economic and social context. Income inequality in a country is probably one of the most important interaction variables when it comes to how a democratic regime affects property rights structures. Inegalitarian countries tend to have large masses of relatively poor citizens, and these have strong incentives for pushing redistributive policies, if being able to form government. Therefore inequality and mass-poverty could both affect the probability of having a left-wing government⁶, and also increase the incentive for a left-wing government to alter private property arrangements. High inequality could moreover tend to deepen social and political cleavages in a country, and positively affect the probability of one group violating existing property rights with negative consequences for other groups, because consensual political agreements might be harder to achieve. We would from this argument therefore ex-

⁵ One counterargument to the superiority of consensus democracy is that political accountability reduces the incentives of political leaders to expropriate, and that accountability is stronger in majoritarian systems (Person and Tabellini, 2000).

⁶ One strong empirical criticism of this argument is that democracies in these contexts often function imperfectly, with strong presence of patrimonial politics and elite manipulation of poor and illiterate masses, as has been observed in Africa and South- and Southeast Asia. See Sidel (1999) for a good description of politics along these lines in the Philippines.

pect that democracy as a regime type protects private property less well in inegalitarian contexts. Cervellati et al (2005) highlights inequality as the crucial contextual variable that determines whether a democratic or a more “oligarchic” regime type does best in securing and enforcing property rights in an economy. Their analytical models indicate that “if inequality is sufficiently high, the economy can sustain a social contract only under the rule of an oligarchic elite, with all members of society optimally obeying to this system, paralleling Hobbes’ Leviathan. In contrast, if inequality is sufficiently low, a social contract can only be supported under democracy”⁷.

2) Unchecked authoritarian elites will grab the property of others

Box 3.2: Sketch of the argument’s logical structure

P: Political elites are income maximizing

P: Income can be generated through different forms of property confiscation and violation

P: Political elites have fewer checks on power and potential actions under authoritarianism

C: We will observe more violation of property rights from political elites under authoritarian regimes than under democratic

According to James Madison, in countries “[W]here an excess of power prevails, property of no sort is duly respected” (James Madison, Federalist Papers quoted in Anderson and Huggins, 2003:47). Authoritarianism implies concentration of power. Political theorists such as Montesquieu (1989) and Locke (1988) focused on the potential adverse effects from this kind of power concentration for wider society. One such adverse effect is different forms of violation of private property from the central actors in government. In principle, any form of government implies concentration of coercive power and therefore gives rise to concern about state-led confiscation of property, because political positions within a state apparatus “provides the opportunity for individual with superior coercive power to enforce the rules to their advantage, regardless of their effects on efficiency. That is, rules will be devised and enforced on behalf of the interests of the politically advantaged” (North, 2000:50). However, the argument goes that democracy will have certain advantages over authoritarian rule, first of all because the politically advantaged will be a larger grouping, making it more likely that they will to a greater degree have interests that converge with “the welfare of the whole nation”, which again is often assumed to be that of restricting widespread property-grabbing. In Olson’s model (2003), a larger group will internalize the overall negative effects of property

⁷ It is important to note that the degree of economic inequality also might affect the probability of having a democratic regime in the first place. The model of Boix (2003) points to the plausible mechanism that authoritarian elites will be more likely to attempt fighting off democratization attempts in a setting with high inequality. There is simply more to lose for elites in inegalitarian countries. However, there might be other mechanisms at work. One of Acemoglu and Robinson’s (2006) main points is that elites might opt for democratization as a ‘commitment device’ when it comes to redistribution, in order to avoid being thrown out in a revolution. Commitments to redistribute ex ante are not credible in very inegalitarian societies, if they are not followed up by an institutional commitment in terms of democratization.

rights violation on the overall economy to a larger degree, even if they gain in the short term from this redistributive activity: “[T]hough both the majority and the autocrat have an encompassing interest in the society because they control tax collections, the majority in addition earns a significant share of the market income of the society, and this gives it a more encompassing interest in the productivity of the society. The majority’s interest in its market earnings induces it to redistribute less to itself than an autocrat redistributes to himself” (Olson, 2003:122). Second, there is a larger degree of power dispersion in democracies, also between different institutions, which makes the room for single actors enforcing their will at the cost of others much more unlikely. Third, there is a correlation between degree of democracy and rule of law⁸, which means that regime-led grabbing outside the scope of clearly determined rules is less of a possible threat.

All of these considerations imply that the two basic reasons given by North (2000:51) for non-working, inefficient or steadily changing distribution of property rights, will occur more often under authoritarianism. North’s first reason is that different socially non-optimal solutions, when it comes to designing, altering and enforcing property rights, can actually be economically beneficial to the rulers. The second reason is that some of the main political actors and groupings backing the leaders will not gain from an efficient and well-functioning property rights structure, and that these groups might pressure the political leaders to obey their interests. This is for example relevant in many African contexts, where “neo-patrimonial rule” (Medard, 1996) has been a label designed several regimes. The regime’s leaders rule by utilizing different layers of patron-client networks, gaining political support for the personal distribution of the country’s resources to certain specific groups. The military is often a key player, and the leaders’ ethnic group has also often been in a privileged economic position in these countries. Land-grabbing and subsequent redistribution might for example be one way of distributing the economic spoils achievable through political power. One proposition deduced from the above discussion is that “the narrower the interest groups that form the regime’s political basis, the more likely is widespread property grabbing”.

We can turn the question around and ask why we will not expect to see the same property rights violations from the ruling elite’s side in democracies as under authoritarian regimes? There are several potential mechanisms. The first is the general argument on institutionalized checks and balances in democracies, with important entities such as independent

⁸ Based on 704 observed country-years from 1995-2004, the correlation is -0,45 between the Freedom House Index (low value means relatively democratic) and an indicator on the integrity of the legal system in a country, found in Gwartney and Lawson’s “Economic Freedom in the world dataset.

judiciaries and separation of legislative and executive authority. According to David Leblang “democratic institutions provide a check on the arbitrary power of the state. Democratic regimes will less likely confiscate possessions and are more likely to provide a stable environment governed by efficient property rights structures” (Leblang, 1996:18). Second, we have the issue of political accountability, and the possibility for electorates to vote out of office those leaders they are dissatisfied with the performance of. There is a large literature on so-called retrospective voting, and it is empirically established that it does occur (Francis et al, 1994). Elections discipline political leaders since a “credible threat of losing their offices in the next period compels policy makers to deliver good services and refrain from extracting rents” (Boix, 2003:208). Other accountability generating mechanisms like freedom of speech and press complement elections in this regard because they increase the stream of reliable information on political activity. These features might also reduce non-rule based property confiscation on behalf of political leaders or their associated. One single farmer has little leverage when opposed to claims from the state apparatus, but freedom of speech, media and freedom of organization might make such a single confiscation-act a larger issue. Interested parties can disseminate information and organize, thereby making the costs to the government larger. Additionally, the government might predict that news of confiscation might reduce investments in the country, both from foreign and domestic investors. The third point, drawing on concepts from principal-agent theory is that democracy is more prone to produce leaders that have more of the similar interest as that of the general population, since one in a democracy could expect the agent to be drawn “from the ranks of the principals”. All of these mechanisms would lead one to believe that grabbing by political elites would be less prevalent in democracies than under authoritarian regimes. An underlying assumption is that asset grabbing by elites is not something the populace wants.

The argument presented above has not been left without criticism. Przeworski and Limongi (1993) explicitly seek to rebut, or at least nuance, the claims made by Douglass North and Mancur Olson that democracy is needed for a regime to credibly commit to property rights. North and Olson’s point is that among others balance of power and systems of individual rights in these regimes make democracy the regime type most likely to secure private property rights. Przeworski and Limongi’s claim is that these authors do not show clearly how democracies can credibly commit to property rights arrangements, and that the proper mechanisms need to be specified, as well as relevant actors: “The property rights literature treats the state as the only source of potential threat. But property rights are threatened by private actors: capitalist property is threatened by organized workers, landlords’

property by landless peasants. It is by no means clear that the villain is not necessarily “the ruler” (Przeworski and Limongi, 1993:53). This point is of obvious importance, as was seen in argument 1, but this does not imply that the potential threat from rulers who hold concentrated power is not real. At least to some extent, a discussion on general power distribution and institutionalized checks and balances such as independent judiciaries and the focus on protection of individual rights, combined with freedom of media and speech that enables actors to observe breaches, will go some way in elaborating potential mechanisms. Under a wide definition of democracy, although not automatically in the more narrow electoral based definition of democracy favored by for example Przeworski et al. (2000), all of these traits are actually more or less necessary parts of a truly democratic regime, and these same traits are those that are said to generate property rights protecting mechanisms. Guaranteed individual rights play an important role. A general climate where individuals are protected from outside violations is expected furthered by “liberal democracy”, and this has bearings also in the sphere of economic property. Individuals are emancipated by political and civil rights, and can use these rights effectively against possible violators through democratically provided institutions. An independent court of law is one of the key institutional features that functions as such a guarantor of individual rights. According to Mancur Olson “the *same* court system, independent judiciary, and respect for law and individual rights that are needed for a lasting democracy are also required for property and contract rights” (Olson, 2003:127). Only long-lasting democracies remain as the true guarantor of property rights in practice, according to Olson, after having investigated other potential alternatives. “History provides not even a single example of a long and uninterrupted sequence of absolute rulers who continuously respected the property and contract-enforcement rights of their subjects” (Olson, 2003:127), and even if democratic leaders’ time horizon may be even shorter than authoritarian leaders’, rule of law, checks and balances on power, institutionalized mechanisms for succession *and* constitutionally guaranteed individual rights provide means to secure property rights. Political and civil rights and liberties emancipate individuals, and make them able to defend their interests against violators, for example in the form of an intervening government but also against other actors. This goes also more specifically for an individual’s right to private property. These rights are again best protected under a democratic system, which provide institutional features that make political and civil rights effective.

There are several historical examples of authoritarian rulers grabbing property to their own benefit. Mobutu, the long-reigning Zairian dictator, was definitely a master in the art! He was so successful in enriching himself that he at one point in time became the

world's third richest man (Sørensen, 1998:80), ruling over one of the world's decidedly poorest nations. His funds are still locked up in Swiss bank accounts ten years after his death (BBC, 2007). Boix provides another empirical example: "After becoming president of Nicaragua in 1937, Anastasio Somoza, who owned no land before staging the coup that put him in power, started to amass a considerable fortune for his family. By the 1970's the Somozas owned 46 coffee farms, 7 sugar plantations, 51 cattle farms, 400 tobacco farms, 60 percent of all beef-packing plants and 100 percent of the fishing and cigar industries in the country, and they held almost a monopoly over coffee and beef exports and domestic milk production" (Boix, 2003:211-12). Another example "is that of the dictatorship of Rafael Trujilo in the Dominican Republic between 1930 and 1961. Wiarda (1968) observes that the Dominican government under Trujilo "could be summarized by the single word 'grab". During his time in power Trujilo expropriated much of the land and businesses of the country so that he eventually directly controlled about 85% of the economy ... and owned 60% of all land" (Robinson, 1998:23).

3) Time horizon of authoritarian leader determines propensity to violate property rights

Box 3.3: Sketch of the argument's logical structure

P1: Regime is authoritarian

P2: Leaders are utility maximizers, utility is increasing in wealth, both present and future, but utility functions differ in terms of discount factor

P3: Leaders differ in their evaluation of expected time left in power, and also in their evaluation of whether they will be succeeded by persons whose utility they include in their own utility function (e.g. children)

P4: Property confiscation will lead to short-term income gain for leader but will reduce economy's growth potential

P5: A large economy in the future will mean a large base from which to confiscate resources for private purpose in the future for the leader or his successors

C: Authoritarian regimes will differ in degree of property rights protection. Impatient leaders, leaders who expect to lose power shortly or does not expect dynastic succession will tend to violate private property to a larger degree.

Mancur Olson (2003) grapples with the question of what would make an authoritarian leader provide a relatively stable and functioning property rights framework, which he considers a public good. Based on Olson's theory of groups and public goods provision (Olson, 1965), this type of voluntary agreement and subsequent decentralized enforcement is expectedly nearly impossible to achieve in large scale agrarian and urban societies; some form of government is needed. Olson further contrasts the "Stationary Bandit" of an authoritarian ruler who expects to preserve his rule over a society for the next years with "Roving Bandits", individuals and groups in a position of extractionary power but without the same degree of connectedness to the societies from which they extract resources. Why are the former ex-

pected to improve the conditions for relatively more stable and certain property rights structures than the latter? First of all, an individual right like formal property rights is “an artifact of a special set of governmental institutions... In a world of roving bandits some individuals may have possessions, but no one has a claim to private property that is enforced by the society” (Olson, 2003:126). The other reason is that a stable authoritarian leader can be viewed as the “owner” of a country, and that such an owner when compared to the “Roving Bandit” would have an “incentive to make his property productive” (Olson, 2003:115). Looting and extracting from subjects in a non-predictive and excessive manner would strongly affect the subjects’ incentive to produce, and therefore ultimately reduce the resource-base from which the owner can extract: “The rational stationary bandit will take only a *part* of income in taxes, because he will be able to exact a larger total amount of income from his subject if he leaves them with an incentive to generate income that he can tax” (Olson, 2003:118).

One of the main insights from Olson’s study is the importance of the time horizon of an authoritarian ruler when it comes to incentives for protecting a property rights framework in an economy. The main conclusion is that authoritarian leaders will be much more likely to refrain from activities such as confiscation, repudiation of contracts and hyperinflation when they expect to be in power for a long time. The same reasoning applies to why dynasties that are expected to last after the present ruler dies or abdicates may abstain from the abovementioned activities. The extra assumption needed is that the leader has a strong preference for the welfare of his sons or other successors after his death, and thereby will want to give them a well-functioning economy as a bequest. The key mechanism is that long term investments of different varieties are necessary for an economy to prosper. Therefore “an autocrat who is taking a long view will try to convince his subjects that their assets will be permanently protected not only from theft by others but also from expropriation by the autocrat himself. If his subjects fear expropriation, they will invest less, and in the long run his tax collections will be reduced” (Olson, 2003:124). Authoritarian leaders that expect to be ousted in the very near future face the same incentives as the Roving Bandit, according to Olson. When it comes to the question of succession, this is obviously problematic in many cases, because of the lack of institutionalized mechanisms within an authoritarian regime that can deal with these situations. In democracy, elections provide the solution to succession problems, but authoritarianism often, but not always, mean a lack of clear, operational rules in political affairs, and this affects also the question of succession. However, the long dynastic reigns of Royal families in Europe earlier shows that it is not impossible to institutionalize such practices. According to Olson’s theory “dynastic succession can be socially desirable, both be-

cause it may reduce the likelihood of a succession crises and because it may give monarchs more concern for the long run and the productivity of their societies” (Olson, 2003:126).

4) Durability of democracy determines its effect on property rights

Box 3.4: Sketch of the argument’s logical structure

P1: Political regime is democratic

P2: Democratic leaders care about survival in office

P3: Manipulation of property rights affects survival probability positively

P4: Leaders know P3

P5: Degree of institutionalization of politics depend on longevity of democratic history

P6: Leaders can manipulate property rights at will in less institutionalized contexts, but not in democracies where politics is properly institutionalized

C: Property rights will be protected to a larger degree in older democracies

In an earlier argument, the role of inequality when it came to determining the effect of democracy on property rights protection was investigated. One other variable that is potentially important for a democratic regime’s effect on private property rights is the durability of democracy in a country, as Clague et al (2003) argue. The history of democracy in terms of the sheer time passed since the nation had authoritarian rule, is probably strongly correlated with the degree of “institutionalization of politics”: Are party structures stable, and are parties as institutions more important than party leaders? Are checks and balances institutionalized in the form of an independent judiciary and separation of parliament and executive powers? Is freedom of expression and media guaranteed, and do the populace possess experience with democracy which again is conducive to “learning” or “habituation” of democratic values and norms (Rustow, 1970). Notice that several of these aspects will determine the “degree of democracy” according to the definition of democracy given in chapter 2.1 One could argue perhaps that it is again more the degree of democracy, rather than the time passed in itself (except for the democratic learning argument) that should enter as the determining concept, and one could then argue further that there is a mere empirical correlation between time passed since change from authoritarianism and the *degree* of democracy. I will not go further in this debate here.

A condensed version of the argument is presented by Clague et al: “Suppose the democratic debut involves nothing more than an election that gives victory to some political leader or optimizing party. When an elected leader has such power, it brings him benefits, so we cannot take it for granted that democratic leaders will be indifferent to whether or not they continue in power or that they will exercise their power without regard to their own interests. The elected leadership might maximize its chances of re-election by confiscating the

assets of unpopular minorities or of the rich and distributing the proceeds among those from whom it hopes to obtain a majority in the next election” (Clague et al, 2003:137). Both because they can gain materially themselves but also because they can gain popularity in front of the next election, democratically elected elites can engage in different forms of confiscation (and subsequent redistribution). In a novel democracy, the appropriate set of checks, balances and rules that might discourage such activities are not present. In stable and durable democracies however, the rule of law prevails, and democratic leaders have to take into account existing legal structures both when it comes to expropriation and when it comes to the surrender of power. The role of a disinterested and decoupled judiciary in upholding private property rights is important, and this craves some separation of power, which is easier attained in entrenched democratic regimes. Under such democratic regimes as described above “the property and contract rights at issue are more often the province of the courts and the legal system than of the elected officials” (Clague et al,2003:144). “All lasting representative governments that have been observed, however wise or unwise their laws may be, always have some extensive property and contract rights” according to Clague et al (2003:139).

Argument 5: Property rights, development and survival-probability for authoritarian leaders

Box 3.5: Sketch of the argument’s logical structure

P1: Political regime is authoritarian

P2: Power and survival in office are main objectives of political rulers

P3: Property rights enhance development

P4: Whether development increases probability of leaders staying in power depends on context, especially type of security threat

P5: Political leaders knows P3, P4 and nature of their particular context

C: Authoritarian leaders’ propensity to protect property rights will vary strongly with context, and especially the type of security threat they face

What, if anything, do political leaders maximize? Producer-theory in microeconomics assumes that firms maximize profits, and consumer-theory that consumers maximize utility, but when it comes to political leaders there is no single objective that has gained explanatory hegemony. The aims and goals real-world leaders seek to promote are probably many and of different character, both meaning that one single leader will have diverse aims, and that different leaders will have some differences “in their utility functions”. Two general goals that leaders would be expected to promote are personal wealth and power. These two are of course causally related in complex ways, even if they can be conceptually distinguished. Increased wealth can for example enhance probability of surviving as head of state, and a longer tenure in important political positions can increase expected life-time wealth. Political theorists, political scientists and political psychologists have been among those noting that

keeping political office is an important goal of political elites, but economists have also recognized this: “In the case of autocracy, there can be no doubt that an autocrat has incentives to choose policies that will extend his tenure” (Clague et al, 2003:145). In political science and international relations *the* main objective individuals and groups seek is often considered to be power. The realist tradition within these disciplines has long focused on power as both a motivational force of its own and as a means of acquiring other goods, such as for example wealth or even the increased probability of realizing one’s ideological visions. Utility maximizing politicians do not only maximize consumption through their revenues, but they also see power as a motivational factor in itself, or as an important good because it can realize other goods. Political psychologists, probing deeper into the psychological motivations of leaders, not resting solely on assumptions of motivational factors, also highlight the fact that some political leaders are motivated by acquiring power for its own sake. As an example, Winter (2003) classifies American presidents after their main psychological motivation, dividing presidents into three classes, after main motivation: power, achievement and affiliation. He finds that 20 out of 36 presidents have to be considered as mainly “power-motivated”, and the scoring is based on content analysis and interviews. There are room for serious methodological criticisms, but my main point here is to underscore that many political leaders are motivated by “power for its own sake” (Winter, 2003:153). Even if it is a crude simplification, I will go on in this argument and stylistically assume that keeping political power through holding office is the main objective of leaders.

The second assumption we need to make in this argument is that protection of private property rights enhance economic development. At first sight, at least to economists, this looks like a decent assumption to make, and there is a large and diverse literature on how property rights protection furthers economic development. I will not go into justifying this assumption here. I will just add that the assumption need not hold for all type of contexts and all type of property rights alterations. Land-reform in inegalitarian societies is a particular alteration of existing property rights that one could expect would rather increase development, due to several factors (Banerjee and Duflo, 2005), and there exists empirical evidence that point in this direction (Banerjee et al, 2002). However, theft, looting and arbitrary confiscation from the political elite’s side are property rights violations that might be particularly harmful to growth, especially since this kind of behaviour can be expected to go on over time and generate an uncertain economic climate, for example when it comes to capital investments. We could therefore think of these latter types of property rights violations in particular when arguing that property rights protection enhances development.

The last assumptions needed in this argument is that political leaders are cognisant of the assumption that property rights enhances development, and, as we will discuss below, that their security situation depends on the level of development and property rights protection in the economy. Rational leaders with the objective of staying in power will then manipulate the economy's property rights system in such a way that they increase their probability of survival. Paul Pierson (2004) calls the type of argument presented in this section for "actor-centred functionalism", and as Pierson notes this type of argument is often used, especially by economists but also political scientists, when explaining institutional design. The main structure of such an argument is: Actor A, for example a government, sets up institution X, because outcome Y is expected to follow from X, and Y is a preferred outcome for A. As Pierson points out, there are several questionable assumptions that need to hold if this argument is going to be valid. Especially troublesome are the assumption on the degree of knowledge required on how institutions work, the assumption that the actors are instrumentally motivated when making or altering institutions, and the possibility that the time horizons taken by leaders could be far shorter than the argument requires in order to be valid.

Internal versus external security threats

The question is then how leaders can enhance their probability of staying in power in an authoritarian system. We will focus here mainly on their incentives to alter development level and property rights in an economy. The main point is that the actions which further this aim depend crucially on the type of security threat the autocrat faces. I will divide security threats into two groups, namely those originating outside the country's borders, and those security threats that come from inside the country. The crucial insight is that the survival probabilities of autocrats depend on their "power"⁹, and that power is a relative concept, where the autocrat's ability to further his will depends not only on his own capabilities and resources, but also the capabilities and resources of those groups that want to see him dethroned. The survival of autocrats typically depends on "the power and loyalty of his military and police forces and on the support of his allies. He needs resources to obtain this power, loyalty and support". (Clague et al, 2003:145) The question is then further in which way the authoritarian ruler can best assemble these resources, through violation of existing property arrangements or through enforcing property rights and making the overall economy grow. We also have to take into consideration that the survival probability of the political elite depends *also* on the capabilities of alternative power centres that do it. A growing economy will generally

⁹ Lukes (1986) addresses the many different views and definitions of power. A common starting point is Robert Dahl's definition of power as an actor A's capacity to make another actor, B, do something that is against his initial will.

mean a larger base from which political elites can draw resources, which again could be used to bolster their position. However, if a growing economy leads also to more resources for competitors; it is ambiguous whether growth in the tax base increases the survival probability of the regime. The key factors are the repressive capacity of the regime and the organizational capacity of opposition.

The main distinction I want to draw is the one between authoritarian regimes that faces largely a military threat from outside, most commonly a threat of occupation by its neighbours, and those regimes that face the prospect of overthrow by an armed group or a strong militant movement from inside its borders. National economic development in the first case will increase the resource base from which the political elite can draw upon when solidifying its powers, whereas it will not have a strong positive effect on the capabilities of its neighbouring adversaries¹⁰. However generating development in a country where you face the potential threat of an internal adversary might also strongly enhance the resource base and capabilities of these adversaries, and thereby not necessarily increase the regimes relative power. Given the assumptions stated above, the regime in the first case will have strong incentives to develop their economies, whereas in the second case, the incentives are not that strong. Looting and expropriating property might in the latter case be a better strategy, even in the long term, for increasing your relative power.

If we now take a closer look first at regimes facing external security threats, the claim is that these have a strong incentive to generate developmentalist policies, including the protection of private property. Carles Boix states that “[T]wo forces generally impel political elites to industrialize: first, a natural desire to catch up with more modern economies; second, and more importantly, security concerns, that is, the need to modernize to prevent neighbours from amassing resources to defeat them in future wars” (Boix, 2003:218). Empirically, this latter concern has been prevalent in the small Asian Tiger countries fearing a military attack from strong neighbours. The most dangerous threats to the rulers of these countries came from outside the country. Taiwan had its less than friendly neighbour China, South Korea had North Korea and Singapore had Malaysia. Taiwan, South Korea and Singapore¹¹ were all inferior when compared to their neighbours in military power, and all have had the fear of intervention constantly hanging over them. For all of the regimes, the impor-

¹⁰ This is clearly a simplification, since we could expect positive economic spill-over effect for example through trade.

¹¹ For a very interesting view on Singapore-Malaysia relations, read long-time Prime Minister of Singapore Lee Kuan Yew’s chapter “Ups and Down with Malaysia” in his autobiography “From Third World to First – The Singaporean Story: 1965-2000”. The strained relations, security threats, attempts at “building up” Singapore economically and militarily, as well as what was perceived as Malaysian attempts to strain the Singaporean economy are treated here.

tance of building military capacity (and for example for South Korea drawing on the US' capacity) was of utmost importance. A strong, "modern" military apparatus craves a relatively developed and sophisticated economy, and the outside threat might through this channel have provided these Asian regimes with incentives to make their economies develop. These authoritarian regimes have been some of the few empirical examples where property rights protection has equalled the level found in the OECD democracies¹². Przeworski et al. claim that in addition to Chile, Singapore and South Korea are the only recent empirical experiences of authoritarian countries that were not hostile to property rights (2000:211). Consider Taiwan, a country ruled by Kuomintang, Chinese nationalists retreating to the island after having suffered defeat in the civil war against the Communists. About 2 million of the most ardent supporters of the Kuomintang moved with its leader Chiang Kai Shek to Taiwan from mainland China, converting Taiwan into a "homogenized right-wing society" (Cho and Kim, 1998:135), with mainland China making up the security threat to the regime. How did the Kuomintang respond to the security situation? When based in mainland China, fighting a civil war with the Communists "the KMT had been largely predatory, based on rent-seeking ... Realizing its own defeat, KMT enforced a series of reform measures with the purpose to reconstruct Taiwan as a base for the eventual recovery of the mainland. These measures included not only registration of the members of the KMT, strict application of discipline, consolidation of the central leadership for its renovation, but also economic reforms," (Cho and Kim, 1998:137). The fact that the same actor changed its economic strategy from a predatory one to a developmentalist, with change in circumstances, lends credibility to the argument.

Contrast now the incentives of rulers of fragmented post-colonial African states, with those of Asian authoritarian rulers after their de-colonization. African leaders feared not so much their neighbours, but rather internal groups willing to take up arms to gain power¹³. Africanist scholars have noted that the main threat to most of Africa's post-colonial strongmen have historically come from within (Clapham, 1996). On a war-torn continent, only a handful of the wars have been traditional inter-state wars. Only in the Ogaden-war between

¹² There are also other plausible connections between the security situation in the Asian countries mentioned, and their impressive growth rates (Shin, 1998:17-24). One is the importance of the US' willingness to lower entry barriers for import of consumption goods from their anti-communist allies in the Asian region during the Cold War, helping the very important export industries in these countries gaining access to the world's largest market. One could also mention the large amounts of foreign aid to South Korea and Taiwan from the US, during the 1950's and 1960's. 64% of US' aid to underdeveloped countries went to "countries that resisted communism in Asia – South Korea, Taiwan, and the Philippines" (Shin, 1998:18).

¹³ Industrialization was neither a necessary prerequisite for political elites seeking to gain resources in many oil and mineral rich African countries, where these natural resources provided a secure income source for political elites, used among others to buy weapons. Type of resource base is probably an important complementary explanation, or a competing explanation if one is fond of mono-causal explanations, to type of security threat, when understanding property rights policies of political regime, but I will here focus on type of security threat.

Somalia and Ethiopia (1977-1978), in the war between Julius Nyerere's Tanzania and Idi Amin's Uganda (1978-1979), and the Ethiopian-Eritrean conflict (1998-2000) do we find historical examples of "traditional" wars between different states. Even more important for the sake of this argument: "[I]n only one case did the direct invasion of one African state by another lead to the overthrow of the regime in power and its replacement by a government acceptable to the invading state. This was the Tanzanian invasion of Uganda" (Clapham, 1996:123). The Organization for African Unity (OAU) actually contributed strongly to non-intervention policies between states by establishing principles and norms of non-intervention on the continent, leading governments to not intervene because among others they feared a breach of these norms and principles would backfire by making it easier for other actors to later intervene in their domestic affairs (Knutsen, 2005)¹⁴. Most African conflicts, and there have been quite a few, have been civil wars, and the African dictator's worst threat to being ousted from power has come from within. Rebel groups, militias and separatist movements were, and still is, a characteristic of a large part of the continent's countries.

This type of security situation has bearings for the incentives for power-motivated political leaders presently in office, for example when it comes to economic development policies. In some cases it might actually have lead to an incentive for leaders to reduce level of development, by for example destroying or deliberately neglecting infrastructural upgrading. The Zairian dictator Joseph Sese Seko Mobutu was acutely aware of the threat a well-functioning road structure in what is now known as The Democratic Republic of Congo would mean to his survival-probability. Addressing then Rwandan president Habyarama he is quoted to have said "I've been in power in Zaire for thirty years, and I never built one road. Now they are driving down your roads to get you", referring to the Tutsi RPF-guerrilla flowing in from Uganda across his northern border (Sundstøl Eriksen, 2004:4). Another example of incentives to destruct and hamper development is Robert Mugabe's 2005 "clean-up" in Harare, the Zimbabwean capital, where the government demolished homes and shelters for about 700 000 poor and sought to move many of them to the country-side (BBC, 2005). Even though the government claimed there were aesthetic reasons behind the operation, as well as an intention to reduce crime and overcrowding, it is common knowledge that most revolutionary attempts dangerous to political leaders originate in the large cities, and particularly the capital. Mugabe now had fewer disgruntled subjects in the capital to worry about. This is a prime example of state violation of private property. To develop regions of

¹⁴Nevertheless, governments have on several occasions more subtly intervened in other countries' affairs by supporting different groups and power centres inside other countries.

the country where a rebel group has a stronghold or a good chance of seizing the territory, might not be a good survival strategy for a political leader in a fragmented country. In general, developing resource bases that could be used by others to overthrow you is a bad idea if your main aim is staying in power. The argument is therefore that political leaders facing internal security threats might at least not have strong incentives to provide property rights protection in an economy, and sometimes might have direct incentives to violate property rights themselves. This goes especially for property rights of political adversaries. Grabbing assets from these internal opponents, or those who are likely to support them, might lead to a “double gain”, since one both enriches oneself and deprives opponents of resources. If the general populace is the most feared enemy, for example through possible popular revolution, this argument would have grave implications for general protection of private property.

Marx versus Tocqueville; development and probability of popular revolution

We can elaborate further on this last point, when discussing the link between development and probability of overthrow of the current authoritarian regime. Say that the biggest threat to the regime is in fact a popular revolution. How does this affect the perceived usefulness of developmentalist policies from the sovereign’s point of view? First off all, in the short term, bad economic performances and declining living standards might negatively affect the legitimacy of the regime in the population, and increase the probability of a revolution as Alexis de Tocqueville (1983) noted already in the nineteenth century. Good economic policies could therefore reduce popular grievances and bolster the regime against revolutionary threats. Some Asian authoritarian regimes have used economic results as a legitimating basis for their own continuation in office. Lee Kuan Yew’s Singapore is the clearest example, where democracy was by the leaders claimed to bring with it economic and social havoc, and thereby destroying the Singaporean miracle that had been built up by the PAP-regime (Knutson, 2006a:407). There is however a strong counterargument, first associated with Marx, but later with modernization theory, for example represented by Lipset (1959)¹⁵. In the longer term, a country reaching higher levels of development will have larger problems sustaining authoritarian rule. This could be due to several different mechanisms, for example a growing middle class or working class, both claimed by different scholars to be conducive to democratization (Lipset, 1959, Rueschmeyer et al, 1992), urbanization, development of mass communication and growing school attendance, but also a change in the values of the populace that make them much more inclined to support democratization (Inglehart and Welzel, 2006).

¹⁵ Davies (1962) provided a classic attempt at synthesis between the Toquevillian and Marxian views on the relationship between economic development and probability of revolution, with the discrepancy between the expectations of the populace and the economy’s performance being the central variable.

Robinson (1998) explicitly makes the claim that authoritarian rulers under some conditions are vary of the fact that economic development could causally affect different political processes and forces that eventually might lead to democratization and thereby their own demise from power. Rational authoritarian rulers would under these circumstances have a direct incentive to not follow developmental policies and reforms (Przeworski et al, 2000:144). Robinson focuses on the “fact that development and changes in political power are closely related”, that this is the one of the key mechanisms for understanding why “bad policies” are often selected, and Robinson adds that this idea “has not been considered in the literature” (Robinson, 1998:3), writing in 1998. Referring to an explicit model constructed two years earlier, Robinson sums up the main logic of the argument in this fashion: “[w]hile [capital] accumulation may increase total income, it may induce institutional transition which is unfavorable to the autocrat. If a dictator loses political power then he does not gain from development and will oppose it. Thus a dictator may wish to slow accumulation” (Robinson, 1998:24). Peter Evans captures this point neatly: “Extracting a larger share from a shrinking pie is not the optimal way to maximize revenues, but it may be the only way consistent with the survival of predatory states ... Generating an entrepreneurial class with an interest in industrial transformation would be almost as dangerous as promoting the political organization of civil society. For predatory states, “low-level equilibrium traps” are not something to be escaped; they are something to be cherished” (Evans, 1995:248). If modernization theory is perceived as correct, and authoritarian leaders hold a long perspective, they will be vary of helping their countries develop, since this might eventually lead to democratization.

Robert Barro (1997:50) claims that there is in general a lack of theory about which type of authoritarianism that will prevail in a country. The causal determinants are likely to be diverse and complex, but I have proposed that one of the most important starting points is recognizing rulers interests of staying in power, and how the political context affects which measures are seen as best in each case for achieving this end. The different threats facing rulers, internal or external, and how these can be fought off is one crucial factor. These different threats will give rise to different policies, impacting on property rights arrangements.

Table 3.1: A summary of the arguments on how regime type affects property rights

Argument	Actors identified as threat to PR	Democracy's effect on PR
1) In a democracy, poorer segments of the population, who form a majority, gain political power. When these have the incentive and the means to redistribute from richer segments of the population, they will do so by confiscating, nationalizing or taxing heavily.	Working class and poor peasants	Negative

2) Concentration of power in authoritarian regimes will allow political elites or their allies to confiscate or outright grab society's resources.	Political elites and their supporters	Positive
3) The degrees to which rulers of authoritarian regimes will engage in grabbing of private property depend on their time horizon. Rulers expecting to hold power for long will have less incentive to confiscate.	Impatient authoritarian rulers, rulers that expect a soon ousting from power and rulers that do not expect dynastic succession	Depends on expectations and characteristics of authoritarian leaders
4) A democratic regime will be beneficial for property rights if it is entrenched.	Democratically elected leaders and their followers in young and unstable democracies	Depends on degree of institutionalization democratic regime
5) Whether authoritarian ruling elites engage in violation of property rights depend on whether their probability of survival and is furthered by the development of the economy.	Authoritarian regimes facing internal threats, or authoritarian regimes fearing democratization resulting from development	Depends on type of authoritarian regime and social and political context

3.2 A discussion of the arguments' validity and interrelations

As we saw in the previous section, there are arguments pointing to general differences between democratic and authoritarian regimes when it comes to their propensity to protect private property rights in their national economies. However, there are also arguments pointing to differences within the broad categories of democracies and authoritarian regimes, relating to several specified variables. Clague et al claim that “[T]he quality of economic policies and institutions depends partly on the incentives and constraints that face those who make governmental and legal decisions. These incentives and constraints vary from one autocracy to another and from one democracy to another. We contend that they vary so much within these two types of regimes that any empirical tests that merely distinguish governments as autocratic or democratic are bound to be misspecified” (Clague et al, 2003:136). Also Boix stresses the need to be nuanced when it comes to especially authoritarian regime types: “What is missing in the literature ... is the appreciation that authoritarian regimes come or are institutionalized in different forms with distinct consequences for the extent of rent appropriation” (Boix, 2003:210). In addition we have to be more nuanced when looking at the dependent variable, namely protection of private property rights when we want to study the effects of political regimes. The distinctions pointed at in chapter 2.2 were: Who are the actors, that is who engages in property appropriation and who loses their property? What is the time dimension of the transfer? Is property transferred by rule of law?

I will start with examining the arguments on general differences between democracies and authoritarian regimes. The two most important arguments in this respect are arguments 1 and 3, which at first eyesight arrive at completely opposing predictions about the effect of democracy on protection of property rights. The threat to private property rights in argument 1 was a relatively poor majority that would gain from implementing widespread redistribution, whereas the threat to property in argument 2 were political elites with uncon-

strained power under authoritarian rule, who would confiscate property to their own advantage. In the first argument, the underlying assumption is that property would be taken from the relatively rich, like landholders and capital owners, and transferred to the electorate. Land reform and heavy taxation, as well as collectivization or nationalization of resources might be expected results of democratization from this model. All of these types of property rights alteration would however be expected to follow some kind of legal progress, in accordance with a democratically elected government passing laws in parliament. Whether compensation will be paid to initial property holders is somewhat unclear, but in “consensual democracies” (Lijphart, 1999) with a weight placed on achieving consensus among groups in policy-making, at least partial compensation could be expected (or alternatively that tax-revenues collected from the rich or other groups will not be maximized), even if the static median-voter model does not imply this. However, if the populace in general values long-term economic development, and recognizes that appropriation of capital and land from the rich, or very high tax rates, will deter new investments, this might lead democratic majorities to show restraint. Land-reforms in democratic India for example were partial and did not take the form of outright confiscation and redistribution (Banerjee et al, 2002). Marginal tax rates on very high incomes and wealth in most democracies are also far from 100%, even if this would maximize the short-term revenue-base for the poorer majority.

The threat to property under authoritarianism from argument 2 on the other hand was appropriation of property, not only from the rich minority, but from society in general, to the political leadership and to the more or less narrow groups that serves as the regime’s basis of support. Carles Boix claims that “in one-person dictatorships, the tyrant represses the lower classes while *at the same time* attempting to transfer assets from the rich to himself” (Boix, 2003:211). We saw above that democracy was sizeably correlated with a proxy for rule of law, and in certain authoritarian regimes we could expect property transfers to the elites to go largely outside any legal machinery, for example as more or less coordinated theft. We would expect such a process to be ongoing over time and not delimited to one act of property transfer, as for example is the case with many land-reforms. In these regimes, we would expect wealth, as opposed to the democracies in argument 1, to become increasingly concentrated as a result of the property rights alterations, and the wealth will more specifically be concentrated in the hands of the political elite and its backers. In so-called neo-patrimonial regimes, the backers could for example be expected to be a particular ethnic group or family, in so-called right-wing authoritarian regimes the group could be the already wealthy land-owners or the urban bourgeoisie. Engerman and Sokolof (1994) claim that Latin American

institutions have been formed in a way by the economic elites, who also held of political power for a substantial amount of time in most of these countries, so that they solidified and deepened the existing economic inequalities. We also saw that for left-wing authoritarian regimes, the dynamic was one that resembled the model presented in argument 1, where a regime with a supporting-base in the relatively poor majority appropriated resources, which were then distributed in a way that was considered more egalitarian.

A more elaborate argument, following Boix (2003) and Gradstein (2007), is to recognize that democracy as a regime type is dependent on the nature of asset distribution in the economy, with democracies being more likely to emerge in already egalitarian settings. According to Boix' analysis, well-functioning democracies are then "close to self-sustaining regimes – it is very difficult for politicians to shift the distribution of assets in a way that undermines the structural conditions that prompted the transition to democracy to start with. By contrast, in dictatorships politicians can reshape society to their advantage, although the extent to which they do varies with the internal distribution of power in the authoritarian regime" (Boix, 2003:16). I have earlier made the point (Knutsen, 2006a) that democratic leaders are more constrained when it comes to their possible policy options, and this is one reason why we see more heterogeneity in policies and results among authoritarian regimes (Rodrik, 2000, Knutsen, 2006a). For our purpose here, the empirical prediction is that we would expect much larger variation in property rights' policies among authoritarian regimes than among democratic. In general one can therefore conclude that the prediction of whether authoritarian regimes or democracies better protect property rights hinges on which type of actor one believe is more prone to violate these rights: the (relatively poor) populace or political elites.

One key claim from argument 1 was that democracy would be worse at protecting initial claims to private property in inegalitarian contexts, because the incentives for redistribution are larger here. This would however require that the poor masses were able to organize politically along "class-lines", which has not always empirically been the case outside Western Europe. Patrimonialism and political clientilism has been a feature in Latin American, Asian and African democracies, but also for example in Southern Italy. I also argued in 5 that one crucial contextual variable when it came to authoritarian regimes was the type of security threat facing the leadership. Internal threats in the form of rebel groups, militias, or even urban middle classes fighting for democracy would give the ruling elite incentives to violate property rights. External threats were however seen as giving leaders incentive to

modernize their economies in order to build military capacity. Another important variable with bearings on whether autocrats would be expected to not violate property rights was, as argument 3 claimed, the time horizon of the autocrat. An autocrat expecting to be ousted from power the coming year would have no incentives to protect property, but rather grab as much as he could (and go into exile!). An environment of political stability would therefore generate stronger incentives to protect private property¹⁶.

When it comes to the different authoritarian regime types, I already above used terms like “left-wing”, “right-wing” and neo-patrimonial regimes, and discussed briefly the way these regime types were believed to affect property distribution and property rights in an economy. However, there exists one very important extra distinction when it comes to authoritarian regimes, and that is the distinction used by Przeworski et al. (2000) between “autocratic” and “bureaucratic” regimes, where the first is a less institutionalized, more personalized form of authoritarian rule with fewer checks on single persons and groups, and less prevalence of rule of law. We would expect dictatorships to engage more in expropriation and confiscation of property to the benefit of the narrow ruling elite than bureaucratic regimes. Whether bureaucratic regimes will protect property rights will depend for example on whether the regime has a Marxist ideological underpinning or not, but we would at least expect less confiscation for personal purposes in bureaucracies than under dictatorships.

From the above discussion, we can therefore in an informal way deduce several specific hypotheses about how political regime type affects property rights. The hypotheses will be presented here without further justification, and they will be empirically tested in chapter 4.

- Democracies will have higher rates of (formal) taxation and redistribution
- Expropriation with no basis in law will appear more often in authoritarian regimes
- Property rights violation will be more prevalent under authoritarian rule if there is political instability or if a coup or popular revolution is expected soon
- Property rights violations will be more frequent in authoritarian regimes facing internal security threats than in authoritarian regimes facing external security threats
- Among democracies, property rights are better protected in egalitarian contexts
- Property rights are better protected, both in democracies and authoritarian regimes, when politics is institutionalized and power is dispersed
- Property rights are better protected in older than in younger democracies
- Property rights are better protected in consensual than in majoritarian democracies
- There is a larger degree of variation in property rights protection among authoritarian than among democratic regimes

¹⁶ The time horizon could *also be important to electorates* under democracy, if taking into account that massive property redistribution might reduce growth, with short-sighted electorates being willing to expropriate capital.

4. Empirical analysis

4.1 Pooled Cross Section – Time Series analysis

4.1.1 *Data, operationalizations and model specifications*

The data used in the empirical analysis is gathered from several different sources, and I have put them together in a data-matrix. Therefore, the reliability of the analysis hinges not only on the reliability of the original data-sources, but also on my handling of the data. There are 227 countries, countries that no longer exist and more or less independent territories (e.g. Puerto Rico, Palestinian Territories, Mayotte) in the matrix, and the time-series run from 1950-2006, but most variables have data for a substantially shorter period, and the relevant time periods will be specified below. Since we are dealing with time series data, I will use Pooled Cross Section – Time Series (PCSTS) analysis; more specifically OLS with Panel Corrected Standard Errors. Beck and Katz (1995) argue, among others by using Monte Carlo studies, that in the type of data-set that I use here with many units and short time series, this is the most appropriate technique. The technique allows us to take into account both autocorrelation (AR1) and contemporaneous correlation, when constructing estimates and testing hypotheses. The operationalizations of the independent variable, political regime type in terms of degree of democracy, were discussed in chapter 2.1. The main measure used is the unweighted average of the Political Rights and Civil Liberties from Freedom House, a 13-point index, with 1,0 indicating most democratic and 7,0 most authoritarian. The polity index is a 21-point index with -10 being most authoritarian and 10 most democratic.

When it comes to the measure of property rights, one variable used is the “rule of law and protection of property rights” measure contained in the Gwartney and Lawson (G&L) “Economic Freedom of the World” dataset. The measure ranges from 0 to 10, with 10 indicating the highest degree of property rights protection. Data exists for the years 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2001, 2002, 2003 and 2004. The measure is an unweighted average of the five following indicators: judiciary independence, impartial courts, protection of intellectual property, military in politics (in rule of law and political process) and law and order (integrity of the legal system). The index is problematic as a measure of property rights protection in the sense that it overwhelmingly looks at the functioning of the court system, which is important for property protection, but not the only relevant factor, and because it incorporates elements that are not a priori a part of the concept of “protection of property rights” (military in politics). I still choose to use this measure, mainly because of its extensive time dimension. I also use the “rule of law” measure constructed by the World Bank’s “Governance Matters” programme, which I believe is a more valid measure of property

rights protection. It will be referred to as the WGI-measure (World Governance Indicator). The index is relatively complex and includes more than 50 sub-measures (Kaufmann et al, 2007:74); drawn from expert-panels, survey data and more “objective” measures. The sub-measures includes everything from “Access to land” to “Trust in Police”, but if one investigates the scoring procedures of the index, protection of property rights, in different forms, is given a very large weight. The strength of the measure is that it is comprehensive and therefore incorporates several relevant elements, and does not for example focus exclusively on expropriation risk. The drawback is that it includes some elements that may be conceptually irrelevant for this study’s dependent variable, but most of the sub-indicators are in one way or other connected to property rights protection. The dataset includes data for the years 1996-2006, which is substantially shorter than the time dimension of the G&L-measure. There are however no gaps in the time series for the WGI, and it incorporates data for a very impressive number of countries and territories, 212, compared to 129 for the G&L-measure. For a closer description of the estimation procedure and estimates of measurement errors, see Kaufmann et al (2007). One point which is worth remembering when interpreting the results from the analysis is that “property rights data, and the political freedom data ... are subjective and perhaps even more prone to measurement error than are international economic figures” (Goldstein, 1998:167). If these measurement errors are random, we will have the well-known bias that estimated relationships will be drawn towards zero. There might however exist systematic biases, for example because countries with high income levels are given artificially high scores from the judges, both on property rights data and democracy-scores.

When running regression analysis, one also needs to control for several variables that might affect both political regime type and property rights, in order to get a better estimate of the causal effect from regime type on property rights. I have earlier argued that one should be careful to not add control variables indiscriminately in regression equations where political regime type is the independent variable of interest (Knutsen, 2006a). The reason is that political regime is a variable that due to its nature as a broad institutional complex and a measure of power distribution in society will be likely to affect a range of other variables. One therefore risks controlling away indirect causal effects, where political regime type affects the dependent variables *through* these added control variables; that is these controls represent causal channels rather than prior variables. Therefore one should only control for variables that are likely to mainly serve as a causal determinant of *both* political regime type and property rights (in our case), if one wants to capture the total causal effect, and not only a “direct effect” from regime type on property rights. This methodological point is very sim-

ple, but nevertheless often sinned against in the empirical literature (Knutsen, 2006a). I am therefore restrictive when it comes to adding control variables.

I use two different regression models in the analysis. One incorporates only the most unproblematic controls, namely main religion (rel), geographic region (reg), colonial power (col), PPP-adjusted GDP per capita (gdc) and population (pop). This is the “basic model”:

$$pro_i = \alpha + \beta_1 dem_i + \beta_2 gdc_i + \beta_3 pop_i + \sum_{s=4}^{10} \beta_s col_{si} + \sum_{t=11}^{16} \beta_t reg_{it} + \sum_{u=17}^{24} \beta_u rel_{ui} + \varepsilon_i$$

The second and more extensive model reduces the probability of omitted variable bias, but at the risk of controlling away relevant indirect causal effects from regime type on property rights. By increasing the number of variables, this model also decreases the number of country-years in the analysis. Especially poorer nations and authoritarian regimes tend to lack data on several variables in databases like the WDI, and we are therefore at risk of selection bias (Knutsen, 2006a). The extra controls incorporated in the extended model are energy production/GDP (ene), logarithm of regime durability (ldu), and a time trend (tim)¹⁷:

$$pro_i = \alpha + \beta_1 dem_i + \beta_2 gdc_i + \beta_3 pop_i + \sum_{s=4}^{10} \beta_s col_{si} + \sum_{t=11}^{16} \beta_t reg_{it} + \sum_{u=17}^{24} \beta_u rel_{ui} + \beta_{25} ene_i + \beta_{26} ldu_i + \beta_{27} tim_i + \varepsilon_i$$

4.1.2 Bivariate correlations, lag-structures and reverse causality

A starting point for the analysis is investigating the bivariate *correlation coefficients* between different measures of democracy and variables related to protection of property rights. The democracy measures are drawn from Freedom House and Polity, and the property rights measures from G&L’s dataset and the WGI. As we can see from table 4.1, the correlations are relatively large, and democracy tends to go with better property rights protection (a low FHI-score indicates democratic).

Table 4.1: Correlation coefficients. Number of observations in parentheses.

Democracy measure\Property rights indicator	G&L: Legal system&Prop. Rights, agr.index (1970-2004)	G&L: Law and order (1995-2004)	G&L: Protection Intellectual PR (1995-2004)	WGI: Rule of Law (1996-2006)
Polity index (1950-2004)	0,41 (1059)	0,21 (665)	0,30 (498)	0,49 (913)
Polity, Checks executive (1950-2004)	0,46 (1059)	0,29 (665)	0,32 (498)	0,55 (913)
FHI Aggregate (1973-2006)	-0,59 (1095)	-0,45 (704)	-0,52 (521)	-0,69 (1496)
FHI Political rights (1973-2006)	-0,56 (1095)	-0,42 (704)	-0,48 (521)	-0,65 (1496)
FHI Civil liberties (1973-2006)	-0,60 (1095)	-0,47 (704)	-0,55 (521)	-0,71 (1496)

It is hard to a priori infer anything about the time-dimension of the proposed causal effects, since we have no theory of how much inertia there is in the effects from political regime type on property rights protection. Does the effect of political regime type (in year t) on property

¹⁷ See Appendix I for a closer description of the control variables.

rights protection peak in the same year t , or does the effect have a substantial lag? We have to seek answers to this issue in a more inductive fashion. A first check is to look at the correlations between the regime measures and different lags of the independent variables. The most important conclusion from this exercise is that the correlation changes little with the lag structure chosen, and that there is variation in the peak of the size of correlation coefficients, dependent on choice of operationalizations. Generally however, the correlation coefficient often peaks in the specification without lag for the Freedom House measure and $t-2$ or $t-3$ for the Polity measure. In the analyses below therefore, I will as a default not use a lag structure, but check lagged specifications where appropriate.

We have to acknowledge that correlation between political regime type and property rights protection might be due to property rights protection having a causal effect on regime type. I perform a simple variant of Granger-causality tests, where I check if political regime in t explains property rights in t better statistically (controlled for property rights in $t-1$) than property rights in t explain political regime in t (controlled for political regime in $t-1$). The two most appropriate specifications for such a test are the WGI's "Rule of Law" index and the FHI-measure of democracy, since these when paired secure a relatively decent number of observations. The simple Granger tests yield results that indicate that we indeed have two-way causality. Both the FHI (t-value of 3,15, 764 observations) and the WGI (t-value of 2,87, 1494 observations) measures are statistically significant at a 1%-level when they are used as independent variables in Granger-tests. Even when I include the second year lagged value of the dependent variable on the right hand side, both the FHI and WGI's "Rule of Law" remain significant predictors of the other variable at the 5%-level. In general, the other measures of democracy and property rights when Granger-tested also indicate that we have two-way causality. I could have continued with more elaborate lag structures for both variables and performed F-tests on clusters of independent variables, but I believe I have sufficiently established that there are strong reasons for believing that two-way causation exists. This implies we should be careful when interpreting the regression results that follow in 4.1. However the IV-analysis in chapter 4.2 gives us a way to cope with the causality structure, and is therefore a more valid way to test the hypotheses proposed.

4.1.3 Results from PCSTS-analysis

In general, the results from the PCSTS-regressions show a significant and positive effect from democracy as a political regime type on protection of private property rights, and the results are relatively robust, surviving different model specifications, lag structures and measures of democracy and property rights indicators. When it comes to differences between

the specifications however, the FHI generally gives stronger results than the Polity-index¹⁸. Polity relies to a larger extent on formal constitutional rules than Freedom House, and does not incorporate civil liberties like freedom of speech in its scoring procedure. Additionally, a score on the Polity-index is not given for country-years which experience foreign occupation, a state of anarchy or a political transition period. These countries often obtain scores that indicate that they are relatively authoritarian on the Freedom House Index, since these countries lack protection of basic political rights and civil liberties. I have earlier discussed whether it is relevant to measure these countries as authoritarian, without reaching any definite conclusion (Knutsen, 2006a:29 and 38-39). When it comes to the dependent variable, both the WGI's "Rule of Law" index and G&L's "Legal System and Property Rights" give the same results qualitatively, albeit with the former showing the strongest positive relationship. The fact that both these measures indicate a strong and significant relationship is important for the generality of the proposed positive relationship between democracy and property rights, since the WGI measure has data for the years 1996-2006 on an annual basis, whereas the G&L-measure has data for every five years from 1970 through 2000, and also data for the years 2001-2004. The results do not differ widely between the basic and extended models, indicating that the possible omitted variable bias in the first model is negligible. However, the effect from the Polity-index on the G&L-variable in the extended model becomes insignificant even on a 10%-level, showing that the relationship between political regime type and property rights protection is not completely robust. However, the general picture, as can be seen in table 4.2, is an estimated positive and significant effect from democracy on protection of property rights. *According to this analysis, democracy as a regime type has a positive effect on property rights, even if we control for income level, population, colonizer, region, main religion, time trend, energy production and duration of regime.*

Table 4.2: Main results from PCSTS-analyses: Coefficients for political regime

Model	Democracy measure	Property rights indicator	Coeff.	P-value	Obs.	Countries
Basic	FHI	WGI (1996-2006)	-0,21	0,000	1140	167
Basic	FHI	G&L (1970-2004)	-0,20	0,000	1061	126
Basic	Polity	WGI (1996-2006)	0,02	0,000	845	145
Basic	Polity	G&L (1970-2004)	0,03	0,006	991	121
Extended	FHI	WGI (1996-2006)	-0,19	0,000	705	118
Extended	FHI	G&L (1970-2004)	-0,18	0,000	890	105
Extended	Polity	WGI (1996-2006)	0,03	0,000	684	116
Extended	Polity	G&L (1970-2004)	0,01	0,243	870	105

¹⁸ A rule of thumb when comparing estimated effects from the Polity-measure and FHI, is multiplying the former by -3,5.

The results above can be interpreted as evidence for the proposition that the effects and mechanisms sketched up in argument 2 trump those of argument 1. However, an important issue in addition to sign and significance-level is how sizeable the overall *estimated* effects are. In order to give meaning to the coefficients in the table, we need to know the characteristics of the dependent variables. Almost all observations on the WGI-measure fall between -2 and 2, and even though the G&L-index ranges from 0 to 10, almost all observations are in the interval from 2 to 9. Consider the estimated effect of a country going from most authoritarian to most democratic on both the FHI and Polity-index, *holding all control variables constant* and accepting linear effects. The models here used indicate that this would impact the degree of property protection substantially. If we first look at FHI, a full democratization going from a 7-score to a 1-score indicates a predicted increase of 1,1 on both the WGI and G&L-indexes, using the extended model. This is a sizeable effect, especially for the WGI, since it makes up a quarter of this index' range. When using the Polity-index instead of the FHI, we observe about half the estimated effect from full democratization on the two property rights measures.

My study is not the first to find a positive empirical relationship between property rights and democracy, even though the number of quantitative empirical studies is not overwhelming. As Goldstein notes “[E]conomic rights have received less attention compared with democracy in the empirical literature, forcing analysts interested in cross-national examination of these institutions to look for proxy measures” (Goldstein, 1998:163). According to Goldstein, Cheibub (1994) uses level and change in taxation as a proxy for property rights and finds no significant relationship with political regime. David Leblang (1996) uses two proxies “exchange rate controls” and “credit allocate to private enterprises as percentage of GDP” for measuring degree of property rights security. Based on PCSTS data (1960-1990), Leblang finds “a far from perfect relationship exists between a regime’s protection of political freedom and its support for private property rights” (Leblang, 1996:6), but still claims that “democratic nations tend to protect private property rights to a greater extent than non-democratic” (Leblang, 1996: 6). In recent years, data-construction of subjective measures for security of property rights, like those used in this study, has speeded up. This obviously increases the opportunity for more valid empirical investigation. Boix (2003), using the measure for risk of expropriation from ICRG, finds that democracies, and especially those with high newspaper circulation (implying greater political accountability) have a much lower degree of expropriation risk than dictatorships. His data-set includes more than 100 nations over the time period from 1980 to 1990. With a 10-score implying the lowest risk, and a 0

the highest, democracies with high newspaper circulation scores an average 9,6, and democracies with low circulation 7,9, whereas dictatorships score on average 8,1 (high circulation) and 6,1 (low circulation). This indicates that there is lower degree of expropriation risk in democracies, and especially in those where political accountability is high (Boix, 2003:209). Democracies also have a generally higher score on newspaper circulation, as expected. Adserá, Boix and Payne (2001) uses regression analysis to control for the effects of economic development, political stability, religion, legal and constitutional structure, size of public sector, trade and financial openness, weight of agriculture and minerals in the economy as well as electoral turnout, and this analysis confirm the beneficial effects of democracy and political accountability on (reduction of) expropriation risk.

4.1.4 Empirical nuances

Variation

One interesting finding from earlier empirical work is that authoritarian regimes show much larger variation in economic performance, for example when it comes to economic growth (Rodrik, 2000, Knutsen, 2006a). I have earlier suggested that the main underlying reason is that in autocratic systems there are few checks and balances on powers of the rulers, and therefore the scope of politically possible policy options increases. This leads to a larger variation also in economic outcomes (Knutsen, 2006a). One could expect that the same pattern would be present with respect to protection of property rights. The “larger variation among authoritarian regimes”-result does surprisingly not hold when it comes to property rights protection. The difference in variances between the relatively democratic and relatively authoritarian regimes, when classified as a dichotomy (FHI: [1, 3.5] and [4, 7]), is small. The measured variance is actually somewhat larger among the more democratic regimes. When we divide the regimes into three categories (FHI: [1, 2], [2.5, 4.5] and [5, 7]), including a semi-democratic category, the middle category has the smallest variance, and the authoritarian group the largest.

If we perform F-tests, with the null-hypothesis being that there is no difference in the variances between the groups, we can claim with the basis in the dichotomy that the variance among the democracies is significantly larger at a 5%-level, but only when we use the G&L-measure. However, using the trichotomy, democratic regimes have significantly smaller variance in property rights protection than the most authoritarian regimes at the 0,1%-level using the WGI-measure and at the 1%-level using the G&L-measure. However, the differences in variances are not as large as what is for example the case for economic growth performances, and problematically, I here rely on country-years as units. This breaks with the

assumption of independent observations (there is a good reason to believe that the property rights protection in Norway in 2001 is correlated with that in 2002), and therefore questions the validity of the tests. I conclude that the empirical evidence on variation in property rights performance between regime types is mixed, and we have not found strong support for the “authoritarian variation” hypothesis. No controls were made here, but one could go further and investigate whether the regime types show significantly different spread around a regression-line (Rodrik, 2000). I do so by using the basic model, FHI and WGI (I use OLS and not PCSTS because of my lack of knowledge on how STATA can generate residuals here), and calculate the squared residuals. The mean squared residual for relatively democratic regimes (FHI: [1, 3.5]) is higher than for relatively authoritarian regimes (0,85 versus 0,74), supporting the claim that the “authoritarian-variation” hypothesis does not hold when it comes to property rights. A Goldfeld-Quandt test (651/ 440df) does not reject the hypothesis of similar variation for the two groups (homoskedasticity to be precise), even on a 1%-level.

Non-linearity

When incorporating a squared regime variable (FHI) as a right hand side variable in the basic model, both the linear and squared regime terms turn out to be significantly different from zero on a 0,1% level when the WGI rule of law index is used as dependent variable. The analysis therefore suggests that the earlier assumption of linearity was too strong, and if we are to believe the model, the positive effect of a marginal increase in democracy is larger the more democratic a country already is. The squared coefficient is by no means strong enough to generate a u-shaped curve. According to the model, the marginal increase in expected property rights protection (WGI) is 0,24 for the most authoritarian countries (FHI=7) and 0,34 for already relatively democratic countries (FHI=2). Interestingly, the estimated effects are stronger than the linear models indicated, even for the more authoritarian countries. Using the extended model instead of the basic does not alter the results very much even if the squared coefficient becomes a little bit smaller in size, and its t-value declines from 4,7 to 3,6. The results do not differ qualitatively when we swap the WGI-measure with the G&L-measure either, even though the indicated curvature becomes even stronger; that is, the positive effect on property rights protection from increasing democracy drops faster when we move towards more authoritarian regimes. The estimated marginal effect of democracy is much stronger for semi-democratic and democratic regimes than what we obtained from the corresponding linear model (more than three times the estimated size when we consider regimes scoring a 2 on the FHI-measure for the basic model!).

Checks on political rulers' power

We saw in the theoretical chapter's argument 3 that an unconstrained executive power was pointed out as one of the main threats to private property. Rulers not constrained by other power centres or institutions would face fewer obstacles also when it came to grabbing property, if they had an incentive to do so. I argued that there were several factors that pointed in the direction that democratic leaders had more checks on their powers than authoritarian leaders, and the general findings above could therefore indicate that argument 3 indeed has empirical relevance. One can however seek to establish more evidence for this specific argument. One of the indicators used in Polity's aggregate score is a variable called "constraints on the chief executive", and "[O]perationally, this variable refers to the extent of institutionalized constraints on the decision-making power of chief executives, whether individuals or collectivities" (Marshall and Jaggers, 2005:22). When we replace the aggregate Polity-index with this more specific variable, the size of the coefficient increases with a factor of between 3 and 4 for different model specifications and property rights indicators, and the t-values also increase. When we compare however, we have to adjust for the fact that "constraints on the chief executive" has only about half the range of the standard Polity-index. Nevertheless, if we for example use the basic model and WGI measure, the "executive constraint"-coefficient is 3,1 times the *upper limit* of the 95% confidence interval for the aggregate polity-index. This constitutes evidence in favour of the proposition that degree of constraints on executive power exercises large influence on the protection of property rights.

I elaborate further on the empirical importance of argument 3 by using the ACLP Database, which distinguishes between different types of dictatorial regimes. One distinction is between dictatorships that exhibit legislatures (bureaucracies) and those that do not (autocracies). Another is between the authoritarian regimes that have political parties and those that don't. The data on the web (<http://www.ssc.upenn.edu/~cheibub/data/Default.htm>) only extends to 1990, so there are few observations temporally corresponding to the property rights data from G&L (190) and none corresponding to the WGI. When we look at the correlation coefficients between the former property rights indicator and the two dummies constructed from the ACLP-data, LAWS and MOBILIZE, they are 0,18 for both dummies, and both are significant at the 5% level. The signs of the coefficients indicate that both existence of legislature and existence of political parties are positively correlated with protection of private property rights in dictatorships, as classified by Alvarez et al (1999:2-3). The coefficients for LAWS and MOBILIZE are however not significant at the 10%-level when substituting them for the democracy-measures in the basic model, but they do have the "right" signs. These analyses only incorporate about 150 country-years. Boix (2003) also uses the ACLP measure

of authoritarian regimes with and without legislatures, and finds that expropriation-risk, using ICRG-data, is clearly higher in the latter regime-type, also when controlling for income level (Boix, 2003:213). The main point is that “[P]roperty rights are, generally speaking, strengthened by the existence of a balance of power among several actors that makes it impossible for any one of them to expropriate from all others” (Boix, 2003:211). This follows argument 2 on the importance of checks and balances, but is here taken one step further by realizing that there is also varying degree of concentration of power within the category of authoritarian regimes¹⁹.

Inequality

In chapter 3, income inequality was presented as one of the crucial contextual variables that were thought to have implications for the relationship between regime type and property rights. I use Gini-coefficients from the WDI as the operational measure of inequality. These data are only scored for a few years for most countries. With the risk of irreliability present, I extend the number of country-years in the analysis by assigning the *latest* Gini-coefficient for a country to the years following. I also score the five years preceding the first Gini-data for a country with this first score. First I enter the inequality measure as a right hand side variable in the basic and extended models to see whether this variable is estimated to have an independent effect on property rights. The analysis shows no evidence that less inequality in general strengthens protection of property rights. There is no significant effect (on conventional levels) from the Gini-coefficient in the basic model, and in the extended, albeit with only 609 observations, an *increase* in inequality increases the protection of property rights according to the model, with the effect being significant at the 5%-level. When it comes to the effect from democracy on property rights protection, it actually increases somewhat in strength when we include the Gini-measure. The above discussion was based on the FHI as chosen democracy measure and WGI’s Rule of Law as indicator for property rights protection. When using the G&L-measure, the Gini-variable becomes insignificant on all conventional levels in both the basic and extended models. We have to remember that the possibility of reverse causation looms large in this analysis. The degree of property rights protection might very well have effects on the degree of inequality in an economy.

The theoretical prediction derived in argument 1 was however that there was an interaction-effect between political regime and inequality: Inequality was postulated to be det-

¹⁹ Remember that these researchers use a dummy variable when scoring level of democracy, and Freedom House scores the bureaucracies as more democratic in general than the autocracies (the empirical correlation between FHI and the LAWS-dummy is 0,15). We could perhaps propose that the existence of legislatures and political parties are factors that make regimes *more* democratic, even if the degree of popular control over politics is small compared to for example Sweden.

rimental to property rights in democracies only. First I divide the sample and investigate the effect of inequality in more democratic societies only. I use two categorizations of democracy here, one extensive including all countries with FHI scores of 3,5 or lower, and one more restrictive including only countries with a score of 2 or lower. The sign of the regression coefficient related to the Gini now changes from positive to negative. When we use the basic model and WGI-measure as dependent variable, we find partial support for the claim that a higher level of inequality is detrimental to property rights protection in democracies. The p-value is 0,109 for the inclusive definition of democracy and 0,0509 for the restrictive definition of democracy. These results are too weak to claim that I find conclusive evidence for argument 5, but one cannot completely refute the argument as wrong either with these empirical results as basis. When I investigate the authoritarian regimes only, I find no evidence that the Gini-coefficient is a significant variable on any conventional level, independent of specification. I proceeded with constructing an interaction variable, constructed as a product of the FHI and Gini-measures, and entered it into the regression models. This variable was significant on a 5% level (p-value of 0,022) in the extensive model when the WGI index was used as dependent variable. The positive sign of the variable indicates that high degree of income inequality becomes a liability to property rights protection as a country becomes more democratic, which is in line with the theoretical argument. This interaction term is however not robust, since it fails to be significant at a 5%-level for other specifications.

The role of political stability and the duration of regimes

Chapter 3 also contained one argument on the importance of the time horizon of authoritarian rulers and one on the importance of institutionalization of politics in democracies, for property rights protection. When it came to the time horizon of rulers, the expected remaining time in power was the crucial variable (as well as preferences incorporating the welfare of probable successors), and when it came to degree of institutionalization in democracies I argued that the amount of time passed after regime change was likely a strong indicator. Przeworski et al (2000:201) estimates the probability that an authoritarian leader will remain in office by dividing the number of changes of chief executives over the relevant period of time in the country, and their further analysis suggest that this variable is important in determining economic growth and investment in the country. Olson (2003) argued that dictators might have preferences that include the welfare of successors, and one could therefore argue that it is the survival probability of the *regime* that best tests the hypothesis derived from argument 3. Clague et al (2003:149) point out that this operational distinction is especially relevant for institutionalized authoritarian regimes (“bureaucracies”) and royal dynasties.

“What is common to all these cases is the presence of a “ruling group,” a family or party with an indefinitely long life-span and thus a longer-run interest than an individualistic autocrat would have” (Clague et al, 2003:149). The past duration of a regime is then a forceful predictor of the future expected time of survival, as the survival probability of authoritarian regimes is lowest in the first years of the regime. Based on data from 1948 to 1982, Clague et al estimate that the “probability of a coup attempt (including successful coups) is 32 percent in the first year, 20 percent in the second year and below 10 percent for most years beyond the sixth. This pattern suggests that the duration of an autocrat’s rule is a reasonable approximation of regime stability and expected regime duration”(2003,143)²⁰. As Clague et al, I therefore use the logarithm of regime duration as a proxy for the expected time horizon of rulers. I find a positive effect from the duration variable on property rights protection among authoritarian regimes, and the effect is significant at least at the 1%-level for all tested specifications (both when cut-off point for authoritarian regime is FHI=3,5 and 5). Clague et al (2003) also find these results when using other data and specifications, and they hold even when they incorporate the possibility that survival probability is endogenous to property rights protection, which I will not do here. These authors find strong evidence for what I have called argument 3: “We found that autocrat who had been in power longer and who by our argument had reason to have longer time-horizons were associated with better property and contract rights than autocrats who were in power for a shorter time” (Clague et al, 2003:172).

Also when it comes to the argument that more properly institutionalized democracies protect property better, I argued that the time-dimension might be crucial. Especially in the first years of a young democracy, party-structures might be weak and other institutions might not have been properly implemented. Therefore, also when I evaluate this hypothesis, I will rely on the logarithm of regime duration variable as a proxy. I get strong results for all model specifications also in this case, with significant (at least at the 1%-level) and positive effects from the duration of democratic regime on property rights protection. This is the case both when the democracy threshold is set to 3,5 and 2 on the FHI. Clague et al (2003) also investigates the importance of entrenchedness of democratic regimes, and these authors find that a positive effect from democracy on property and contract rights can only be found for older and entrenched democracies, and therefore conclude that “[M]any of the benefits of democracy seem to accrue only over a substantial period of time” (Clague et al, 2003:157). I argued

²⁰ See Clague et al. (2003:142) for an interesting rational choice based explanation of why this empirical trait exists.

that what these authors considered a difference between young and non-institutionalized and old and entrenched democracies, could at least partly be captured by the degree of democracy-variable, when democracy was defined widely, as I did. When we include the FHI in the regressions, the size of the durability-coefficient (still significant on 1%-level) is typically halved, supporting this claim. One problem, when wanting to test argument 3 and 4 separately, is that political stability (in the sense of continuation of regime), might have other independent effects on property rights protection than through the expectations of autocrats or the degree of institutionalization of democracies. I have here used the same proxy variable, logarithm of durability of the two different regime types, as evidence for two different hypotheses, which in itself should lead to concern. It might for example be that it is not degree of institutionalization that is the crucial factor for democracies, but the fact that newly elected democratic leaders acknowledge that there is a high probability of democratic breakdown, leading to a short time horizon. Unfortunately, I lack data that could make good strategic tests possible.

Security threats to regimes

Argument 8 advocated that the type of security threat an authoritarian ruler faced at least partly determined his incentives to protect private property rights in the economy. I referred to the differing security contexts between some Asian countries and Africa to validate the argument empirically. If we for a moment simplify and claim that the main security threat to Asian dictators has been external intervention, whereas African “strongmen” has predominantly feared internal militias, rebels and ousting by for example civil war, we can now attempt to base our test of argument 8 on potential empirical differences between Asia and Africa. We risk omitted variable bias when performing such a comparison, since there might very well be several other factors contributing to why democracies and authoritarian regimes protect property rights differently on the two continents: The results should be viewed with caution. When we look at Africa (south of the Sahara) first, using the basic model and the FHI and WGI measures, democracy has a strong and positive effect on property rights, significant on a 0,01%-level, even with only 312 observations. In Asia however, there is no significant effect from regime type on property rights protection, and the coefficient is almost zero. If we substitute the WGI measure with the G&L-measure, the effect from democracy on property rights in Africa is now only significant at the 10%-level, casting some doubts on the results reported above. However, the results for Asia now show an estimated positive effect from authoritarianism on property rights protection, albeit the effect is insignificant at conventional levels with a t-value of 0,73. The results taken together therefore indicate that

the effect from political regime type on property rights protection is differing between Asia and Africa. Argument 5 points out that a potential reason is the different types of incentives facing authoritarian rulers on the two continents, because of different security threats. We can of course not reject the possibility that it is Asian democracies that fare worse than African democracies, but the hypothesis that Asian dictatorships fare well and African dictatorships bad is consistent with much of the political and economic literature on the continents, and also the average property rights scores for the different regime types when I check.

We could however take another approach to test the hypothesis: Polity registers countries that go through a so-called interregnum, “during which there is a complete collapse of central political authority. This is most likely to occur during periods of internal war.” (Marshall and Jaggers, 2005:17). One could claim that countries that experienced interregnum during a period of time are also the countries where ruling political regimes faced internal security threats, even though there are serious validity problems with such an approach (historical changes in a country, endogeneity of measure with respect to property rights, countries with internal security threats that never realized interregnum period, countries with civil wars but without interregnum periods like e.g. Rwanda). According to argument 5, there is reason to believe that authoritarian regimes would be particularly bad at protecting property rights in these contexts. I construct a dummy and assign a 1-score to countries that experienced at least one year with interregnum from 1950 to 2004. I then create an interaction variable, multiplying the FHI variable with the dummy. When I enter this interaction variable into the regression model, it is significant at the 0,1%-level, with a t-value of 7,8. The ordinary FHI variable is also significant at the same level. The FHI variable still indicates that authoritarian regimes in general have a negative effect on private property rights, but the sign of the interaction variable implies that authoritarian regimes have an even larger negative effect in regimes that face internal security threats. The interaction variable has an estimated coefficient that is almost 30% of the size of the ordinary FHI variable, indicating that this latter “security-effect” is substantial in size. The above discussion used the WGI measure and the basic model as its basis for inference, but the results hold also for the G&L-measure, even if the interaction variable is here only significant at the 5%-level. One large concern is however that the variable fails to become significant at conventional levels when we use the extensive model, implying that we might have an omitted variable bias in the basic model. Ideally, one should have gone through the political history of each country, and assigned subjective scores on a “main security threat” dummy, also separating between moments in history for countries where the predominant security threat has differed over time.

The political left-right dimension

It is often assumed that right-wing dictatorships protect property rights relatively well, on behalf of its wealthy backers, and that left-wing dictatorships, particularly Marxist, are detrimental to private property rights. One way to test this hypothesis is to use the historical trait that Eastern Europe and the Soviet Union were areas where Marxist regimes dominated, at least before 1989, and that Latin America was a breeding ground for right-wing dictatorships. If we now use the G&L-data, which go back to 1970, we can check if authoritarianism had a positive effect on property rights in Latin America and a negative effect in Eastern Europe and the (ex-) Soviet Union. These hypotheses find little empirical support: The positive effect of democracy on property rights in Latin America is according to the basic model estimated to be larger than that in any other region. The size of the coefficient is -0,33 and it is significant at the 0,1% level, even with only 226 observations. In Eastern Europe however, I find no significant effect from political regime type at all, and the sign of the coefficient even estimates that authoritarianism has a positive effect on property rights. If we use the extended model and incorporate time-trend, regime duration and importance of energy production, the FHI variable in Eastern Europe and Soviet Union becomes negative and significant at the 1%-level, supporting the hypothesis that democracy protects property better in the region where Marxism was earlier the dominant mode of government. The time trend is estimated to be negative, indicating an overall decline in property protection in the region over time, and the incorporation of this variable, highly correlated with number of democracies in the region, is the most likely explanation of the changing signs of the democracy variable.

Different types of democracies and different types of authoritarian regimes

I have throughout the study stressed that both democracies, and especially authoritarian regimes come in different types and forms, and that we need to go beyond the authoritarian-democratic dichotomy in order to get a fuller understanding of the effects of regime type on property rights. I used Lijphart's terms of consensual democracies and majoritarian democracies in the theoretical discussion, and argued that the former might have advantages in protecting property rights. The electoral system is perhaps the most central indicator in the distinction between consensual and majoritarian democracies (Lijphart, 1999), with PR-voting related to the former and majority-voting related to the latter. In practice there are electoral systems that are so-called mixed, like in Germany where some seats in the Bundestag are allocated by majority-voting and some are distributed by PR-like allocation. However, I construct a simple majoritarian dummy-variable, where all pure majoritarian systems are coded with a 1, and all other systems are given a 0. I obtain data on electoral systems

mainly from a database constructed by Golder (2004), comprising parliamentary elections globally from 1946-2000. I have also used other sources where data were lacking such as Wikipedia and the coding by Persson and Tabellini (2003:84,86). Electoral systems are seldom changed, and “this stability reflects an inertia of electoral systems that is sometimes referred to as an “iron law” by political scientists” (Persson and Tabellini, 2003:88). I therefore score the majoritarian dummy in the years following the last election registered in the database (to 2006) similarly with the last election-year score. I have scored countries from their first year being counted as a democracy by Hadenius and Teorell (2006), or three years prior to the first election. In order not to falsely include dictatorship-years, I only include country-years that score below 4 on the FHI-variable. When countries change between PR and majoritarian electoral rules, I assign the change, if possible, to the median year between the two elections. If we use the basic model without the FHI variable, the estimated effect of majoritarianism on protection of property rights is negative, but insignificant on conventional levels, and this goes for both the WGI and G&L-measures. If we control for level on the FHI variable, the sign of the majoritarian-dummy changes, and for the WGI-specification, the dummy is also significant at the 0,1%-level. However, the coefficient is not significant at even the 10%-level when we use the extended model. Summed up, there is no support for the hypotheses that “consensualism” better protects property rights than “majoritarianism”.

Persson and Tabellini (2003:85,87) classify democracies according to constitutional form of government, that is whether a country has a presidential or a parliamentary form of democracy²¹. I use their dummy-classification, meaning that semi-presidential systems like that in France (scored as parliamentary) do not get an own category. Several countries have Presidents with a more symbolic function, like Germany, but since I, as Persson and Tabellini, am interested in the functioning of actual political decision-making structures, these countries are not counted as Presidential. One hypothesis close to the spirit of argument 2 is that we often have a stronger degree of concentration and personalization of executive power in a presidential system, and that such a system would be worse at protecting property rights than a parliamentarian. 85 countries are scored by Persson and Tabellini, but only country-years with FHI-score below 4 is included in my analysis. Presidentialism is found to be detrimental to property rights protection. In the basic model, the coefficient is estimated to be -0,23 (p-value = 0,000) for the WGI-measure and -0,26 for the G&L-measure (p-value = 0,026). If we include the FHI-index in the model (note that FHI could be endogenous to con-

²¹ Their data stop in 1998. However, there is an extremely large degree of inertia in constitutional form of government, even more so than for electoral systems. I therefore extend the data to 2006, without checking further for the particular countries.

stitutional form), the coefficient is halved, but still significant at the 1%-level when using the WGI-measure. The result is even stronger in the extended model. I have thereby found evidence that presidential democracy protects property less well than parliamentary democracy.

When it comes to authoritarian regime types, I utilize work recently done by Hadenius and Teorell (2006). These authors classify authoritarian regimes into the following categories: Traditional Multiparty, Partyless, Dominant Party, Military Multiparty, Military traditional, Rebel regimes, Military no-party, No-party traditional, One-party traditional, One-party monarchy, Traditional monarchy, No-party monarchy, Multiparty monarchy, Civil War, Occupation, Theocracy, Transition and Other. Their three main distinctions underlying the typology is 1) existence of hereditary succession, 2) military force underpinning the regime and 3) existence of popular elections (Hadenius and Teorell, 2006:5). I collapse all the military regime categories into one, and all the monarchy categories into one. I use the basic model (FHI is dropped) with WGI as dependent variable. The democracy-dummy from Hadenius and Teorell is dropped, and coefficients therefore estimate differences in effects when compared to democracy. The regime types that are significantly worse than democracies at protecting property rights at the 5%-level are military regimes, traditional multiparty regimes, traditional one-party regimes (mainly communist) and theocracies, as well as countries experiencing civil wars. Traditional dominant party regimes, rebel regimes (few observations and significant on 10%-level), “other” regimes as well as transition countries have negative coefficients that are not significant at the 5%-level. The only estimated positive coefficient belongs to the monarchies. The coefficient, estimated to 0,04, has a relatively low t-value of 0,48, but in any case monarchies are significantly better at protecting property rights than many of the other authoritarian regime types. This lends credibility to the proposition derived by Mancur Olson, that dynasties because of a long time horizon will have incentives to protect property rights in a country. On the other hand, the largest, negative coefficient belongs, not surprisingly, to the civil war country-years (-0,62). One-party traditional regimes have an estimated coefficient of -0,41, military regimes of -0,32 and traditional multiparty regimes -0,31. The latter category contains many country-years, which could be characterized as semi-democratic. The average FHI-score for this group is 4,1, compared to 5,9 for the military regimes, 5,3 for the monarchies and 6,2 for the traditional one-party regimes. If we use the extended model, dominant party-regimes also exhibit a negative coefficient significant at the 5%-level, and this category incorporates several “right-wing” authoritarian regimes. All the other dummies significant at the 5%-level in the basic model remain signifi-

cant in the extended model. The monarchy-dummy now has an estimated positive coefficient of 0,12, which just fails to be significant at the 5%-level with a p-value of 0,051.

If we switch the property rights indicator to the G&L-measure, starting measurement in 1970 rather than 1996, the estimated monarchy coefficient is now negative, albeit insignificant at conventional levels. An interesting finding is that the only positive coefficient (+0,10) now belongs to the dominant party group, which incorporates for example Brazil(1967-1973), Egypt(1976-2003), South Africa(1960-1988), Singapore(1965-2003) and Taiwan(1986-1991). Many of these countries could be identified as right-wing dictatorships, and this result lends some credibility to the claim that right-wing authoritarian regimes can be beneficial for property rights protection. We have to be nuanced: the coefficient is not significant at the 10%-level, with a t-value of 0,56, but according to this specification this regime type is significantly better at protecting property than many other authoritarian regime forms. Traditional multiparty regimes, military regimes²², rebel regimes and civil war episodes have negative coefficients that are significant at least at the 10%-level. When we use the extended model, the main traits remain, with military regimes and multiparty regimes having negative coefficients, significant at the 5%-level. However, three coefficients are now positive, namely the traditional one-party dummy, which was strongly negative using the WGI, the monarchy dummy and the dominant party dummy, which coefficient is now 0,24 (t-value of 1,56). Overall then, there is no evidence that monarchies are worse at protecting property than democracies, and the results for one-party regimes, many communist, and dominant party-regimes, many right-wing, are varying strongly with the choice of property rights indicator (and time-dimension!). Military regimes, authoritarian multiparty regimes and civil war make for bad protection of property rights in a country.

Specifying the dependent variable

Alteration of property and breaches of property rights are relatively broad conceptual categories. An ideal study would disaggregate this broad concept and look at more specific indicators, like degree of theft, risk of expropriation, instances of nationalization and so forth. Data is however hard to come by, and often costly²³. I have however tested some specifications, since the WDI incorporates data on levels of formal taxation, inflation and FDI inflows. Whether it is right to classify taxation as a breach on private property rights can certainly be

²² We have to remember that “military in politics” make up 1/5 of the basis for the scoring of the Gwartney and Lawson-measure, and that we therefore will have a certain amount of bias in these results.

²³ If one possesses data, it is obvious that one could test more of these hypotheses on a more specified dependent variable. Investigating the empirical effect of democracy on land-reform would be one very interesting area. Przeworski et al (2000: 211) mention an earlier empirical study by Kobrin (1980), which finds a higher probability of nationalization of industries in authoritarian regimes (one nationalization act every 3,09 years) than democratic regimes (one act every 3,83 years). However, we should remember that certain relevant variables, like for example income level, are not controlled for here.

discussed. Taxation is in any case often a relatively orderly and predictable alteration of property by law, and falls under the type of property alteration I argued could be expected in democratic regimes. I test whether democracy affects the tax revenue as percentage of GDP. When I use the basic model, I find a positive and significant effect from democracy on tax revenue as percentage of GDP, both when using the FHI (5%-level) and the Polity-index (1%-level). According to the Polity-estimates going from most authoritarian to most democratic will increase tax revenues as percentage of GDP by three percentage points, holding region, religion, colonizer, GDP and population constant. The corresponding estimate for the FHI-result is an increase of approximately two percentage points. When I switch to the extensive model however, the results are no longer significant even at the 10%-level, but the point estimates still indicate a positive effect from democracy on tax revenues. Viewed in light of the general results that democracy protects property better, we have gathered some evidence that transfer of property by formal taxation is a mode of property and resource alteration that is more dominant in democracies than in dictatorships, where property is altered by other means. Olson (2003) argued that hyperinflation, and maybe one could even say inflation in general, is also a way of transferring property; from lenders to borrowers. Hyperinflation created by the central bank or government is a less predictable and more arbitrary way of transferring property than taxing and redistributing. When I enter the logarithm of inflation as a dependent variable (deflation episodes are then cut out), the results indicate that democracy does not in a systematic way reduce inflation. The coefficients vary with specification, and the only finding significant at the 5%-level, the extended model using Polity, indicates that democracies produce somewhat higher inflation. The inflation analyses incorporate between ca 2700 and 4100 observations for between 117 and 166 countries. A last indication on the degree to which democracies protects property rights, is to look at how foreign investors choose investment location. I check the effect of regime type on FDI inflows as percentage of GDP. I only use the extensive model, since it is here maybe extra important to control for political stability, time trend (globalization), and energy production (oil-companies). The estimated effects of regime type are not large, with the model predicting an increase of ca 1/3 percentage point in FDI net inflows/GDP, when moving from most authoritarian to most democratic. The estimated effects are insignificant on the 10%-level. Democracy does not give a substantial boost to foreign investment according to these results. The analyses incorporate about 2800 observations for close to 115 countries.

4.2 Instrumental Variable Analysis

A fear among Econometricians and others when using OLS-based techniques is the existence of different forms of simultaneity bias. As we saw above, both earlier literature and Granger-tests indicate that there is a causal effect from property rights on regime type. In this section, I will address this potential problem by applying Instrumental Variable (IV) analysis. This approach is however not free from problems itself. First, instruments might be endogenous, and second, weak correlation between the instruments and the political regime variable might cause relatively large IV standard errors. It is difficult to find decent instruments that fulfil the main criteria for being a valid instrumental variable in the setting of this study. Institutional structures are often systematically related. We could perhaps speak of institutional matrices, where the elements in these matrices (different institutions) are strongly correlated. This makes finding instruments for democracy in this setting (factors that affect democracy, but not property rights directly without going through the political regime type) very difficult. More generally, the difficulty of finding IVs for political regime type is acknowledged in the literature on the effects of political regime type, and one of the few suggestions is given by Helliwel (1994), who uses historical values on the regime variable as instrument for present values when investigating the effect of regime type on economic growth.

4.2.1 *An instrument for political regime: Huntington's waves of democratization*

Here I suggest two instruments, or actually two varieties of the same type of instrument, for political regime, which draw on Samuel Huntington's work "The Third Wave" (1991). Huntington's stylized argument is that democratization of countries globally has historically proceeded in three temporal waves²⁴. The first long wave started in 1828 and ended in 1926, and the second and shorter wave lasted from 1943 to 1962 (Huntington, 1991:16). According to Huntington the third wave of democratization "began, implausibly and unwittingly, at twenty-five minutes after midnight, Thursday, April 25, 1974, in Lisbon, Portugal, when a radio station played the song "Grandola Vila Morena." The broadcast was the go-ahead signal for the military units in and around Lisbon to carry out plans for the coup d'etat" (Huntington, 1991:3). Between these waves, there have been reverse waves, where authoritarianism has triumphed relatively, with the first reverse wave lasting from 1922 to 1942 and the second from 1958 to 1975. Writing his book in the early 1990's, Huntington's work provides no answer to when the third wave ended, if it ever has. However, Freedom House Executive

²⁴ "A wave of democratization is a group of transitions from nondemocratic to democratic regimes that occur within a specified period of time and that significantly outnumber transitions in the opposite direction during that period of time. A wave also usually involves liberalization or partial democratization in political systems that do not become fully democratic." (Huntington, 1991:15).

Director Jennifer Windsor drawing on Freedom House's classification recently stated that "[A]lthough the past 30 years have seen significant gains for political freedom around the world, the number of Free countries has remained largely unchanged since the high point in 1998. Our assessment points to a freedom stagnation that has developed in the last decade". I will therefore (somewhat arbitrarily) assign 1998 as the end-year of the third wave.

I will not go in depth on the underlying argument of why democratization has followed this pattern globally, but Huntington links the first wave to the American and French revolutions and the second wave to the allied victory in World War II. Even though Huntington claims that the third wave started in Southern Europe in the mid-70's, and soon transplanted to Latin America, a large chunk of the democratization processes in Eastern Europe, Central Asia and Africa can be connected to the fall of the Berlin Wall and Soviet Empire, large geo-political events. However, not only large geo-political events make democratization come in clusters. We probably also have "contagion effects" or "spill-over effects" between countries, for example neighbours. When Portugal went through democratization, it set a precedent for those in Spain fighting for democracy, and we could perhaps speak of causal effects from one country's democratization process on its neighbouring country's political processes. It is hard to determine the relative strength of major, underlying geo-political factors and contagion from neighbours, but this is irrelevant here, since the *clustering* of democratization experiences in any case can be attributed to factors that are exogenous to national politics. If these waves represent such exogenous factors that affect the probability of regime transition to democracy, and these waves are not directly related to property rights, we could argue that regime transition for a country within one of these three waves can serve as an IV. It is a valid instrument since a wave-dummy is correlated with the endogenous independent variable of political regime, and it is not *directly* related to our dependent variable of interest, namely protection of private property rights (it is not correlated with the error term in the original regression, where property rights is the left hand side variable). To be more specific when it comes to the construction of the two IVs: The variable "Wave" is scored with a 1 if the country-year had its latest regime transition according to Polity (IV) within one of the three waves, that is if the regime originates from the period from 1828-1926, 1943-1962 and 1974-1998, and 0 if not. The second dummy "Not in reverse wave" is scored a 1 if the last regime change was not in a reverse wave. Huntington's categorizations are somewhat ambiguous, with waves and reverse waves overlapping. The difference from "Wave" is that countries with regime change in 1958-1961 and 1974-1975

are given a 0 instead of a 1. Additionally, the USA (only country with a regime originating from before the first wave) is given a 1 on this second IV, instead of a 0.

The approach of using time point of institutional change as an IV is not new in political economic literature. Persson and Tabellini (2003) used a similar approach when analyzing the effects of different types of constitutional rules, but their data set is limited to democracies only, and they therefore look at differences *between* democracies. Persson and Tabellini for example postulate that presidential systems were more likely to occur in the period from 1981 to 1998, and parliamentary systems before 1981 (Persson and Tabellini, 2003:99). The authors therefore use time point of adoption of constitution (dummies) as an instrument for type of institutional arrangement. Relying on Huntington's theory on waves of democratization and Persson and Tabellini's methodological insight, I can apply IV analysis and achieve consistent estimates of the effect of democracy on property rights, if the instrument is indeed valid. The correlation between the two instruments and the democracy-measures are not extremely strong, but at least adequate for one of the instruments (reverse wave).

Table 4.3: Correlations between democracy measures and instruments

IV\Democracy measure	Aggregated FHI	Polity-index
Wave	-0,15	0,18
Reverse Wave	-0,33	0,37
Number of observations	4893	6900

I use both dummies as IVs in different analyses, in order to check robustness of the results.

The structure of the first stage regression (for the basic model and "wave") is given below:

$$dem_i = \alpha + \beta_1 wave_i + \beta_2 gdc_i + \beta_3 pop_i + \sum_{s=4}^{10} \beta_s col_{s,i} + \sum_{t=11}^{16} \beta_t reg_{t,i} + \sum_{u=17}^{24} \beta_u rel_{u,i} + \varepsilon_i$$

The predicted regime values are then in the second stage put into the type of regression framework illustrated in chapter 4.1, instead of the actual values. The first stage results typically shows that the coefficients for "Wave" and "Reverse wave" are typically estimated to be sizeable (between 0,3 and 0,5 when FHI is left hand side variable and around 2 for Polity), and significant at least on the 1%-level for all specifications where the G&L is used as dependent variable in the second stage; that is in the specifications with longer time series. For the shorter time series (WGI), all but one specification of the basic model shows a significant coefficient for the IVs in the first stage on the 5%-level, but the results are mixed when it comes to the extended model here. The R^2 values from the first stage are typically around 0,65 for the basic model and somewhat higher for the extended (up to 0,74). I will conclude by claiming that I have decent, if not perfect, instruments for regime type, given that they are uncorrelated with the error term in the second stage regression.

4.2.2 Results from IV analysis

Some of the results from the IV analysis, like from the PCSTS analysis in the section above, indicate a strong, positive and significant relationship between democracy and private property protection. The effects are in many instances estimated to be two or three times the size of that estimated in corresponding model specifications by PCSTS. However, several of the specifications do not find the effect to be significant at conventional levels. Four of the specifications reported in table 4.7 find that the effect from democracy is significantly different from zero at the 5%-level, and six specifications find that it is significant on the 10%-level. In general, the basic model gives stronger results than the extended, and FHI is the choice of democracy measure that most often lead to significant results. If we for example look at the extended model, with FHI, G&L and “Wave” as instrument, the point estimate of the effect is more than twice the size of those found in comparable models used in the PCSTS analysis, but due to the size of the standard errors, the p-value of the coefficient is only 0,115. IV analysis tends to inflate the standard errors of coefficients, which makes finding significant results harder. A more sceptical interpretation would claim that the fact that many IV specifications fail to find significant effects is an indication that the correlation between democracy and property rights protection is largely due to prior variables and a causal effect from property rights on regime type. However, we found significant effects for some specifications, and if the instruments are valid, this is indeed decent evidence of a causal effect from political regime type on property rights: Democracy can seem to enhance the protection of these rights, even if the result is not robust.

Table 4.4: Main results from IV analyses: Coefficients for political regime²⁵

Model	Democracy measure	Property rights indicator	Instrument	Coeff.	P-value	Obs.
Basic	FHI	WGI (1996-2006)	Wave	-0,43	0,001	878
Basic	FHI	WGI (1996-2006)	Reverse	-0,27	0,001	878
Basic	FHI	G&L (1970-2004)	Wave	-0,53	0,012	1020
Basic	FHI	G&L (1970-2004)	Reverse	-0,32	0,064	1020
Basic*	Polity	WGI (1996-2006)	Wave	?	?	?
Basic	Polity	WGI (1996-2006)	Reverse	0,09	0,065	845
Basic	Polity	G&L (1970-2004)	Wave	0,13	0,042	990
Basic	Polity	G&L (1970-2004)	Reverse	0,04	0,206	990
Extended	FHI	WGI (1996-2006)	Wave	0,25	0,393	705
Extended*	FHI	WGI (1996-2006)	Reverse	?	?	?

²⁵ Models marked with * were models which gave “strange” results when analyzed. All coefficients in the second stage suddenly had a change in t-values to between 0,1 and 0,4, and the size of the coefficients were often multiplied by 100 (also the regime variable). Leaving out several controls from the analysis did not change these results, and I have yet to find a plausible explanation for this phenomenon. I therefore mark results for these models in the table with a ?-sign.

Extended	FHI	G&L (1970-2004)	Wave	-0,38	0,115	889
Extended	FHI	G&L (1970-2004)	Reverse	-0,24	0,286	889
Extended*	Polity	WGI (1996-2006)	Wave	?	?	?
Extended*	Polity	WGI (1996-2006)	Reverse	?	?	?
Extended	Polity	G&L (1970-2004)	Wave	0,09	0,170	869
Extended	Polity	G&L (1970-2004)	Reverse	0,03	0,468	869

Since there is reason to believe that in the real world, causality between political regime and protection of private property rights runs both ways, an even more appropriate methodology for dissecting the different causal effects than IV-analysis, might have been 3SLS, with multiple equations. This would however have required that I possessed a valid instrument for private property rights protection in a framework with political regime type as the dependent variable, and I do not have any suggestions of such an instrument.

4.3 Fixed-Effects analysis

I have briefly mentioned how different underlying structural factors might create a positive correlation between democracy and property rights. A specific type of culture, a certain historical pattern of development, level of income and economic inequality might all be factors that affect both political regime and property rights in a systematic fashion. I will here use “Fixed-Effects” analysis, adding dummies for each country in the regression equations to control for country specific effects. I could have taken a more intuitive approach, by selecting countries that had gone through democratization processes, and analyzing how this affected their degree of property rights protection, by using a before-after approach. The problem here is that the measures of the dependent variable either have short time series (WGI) or have large gaps in the panels (G&L). This leaves us with few instances of countries undergoing substantial democratization with adequate measures on the dependent variable “before and after”. These data-problems also affect the FE analysis, but we here include more data by also using information from countries that had less dramatic changes in regime type. As we saw in chapter 3, Clague et al. (2003) theorized over why young democracies might have different effects on property rights than more entrenched democracies. Their empirical work also suggests that the effects from democracy on property rights protection accrue over time. This again implies that the short time horizon of this analysis might be a limitation.

The results from the Fixed-Effects analysis’ different specifications are like in the IV analysis a little bit more mixed than the results found from the PCSTS analysis, even though five out of the eight main specifications yield significant results, all in favor of the hypothesis that democracy affects protection of property rights positively. The estimated effects are also smaller in size when we incorporate the country dummies in the regression, halving for

example the estimated effects on property rights from changes in the FHI in the basic model. A FE analysis is in many ways a very restrictive analysis, allowing us to infer causal effects only from intra-national experiences, not using cross-national co-variation between regime type and property rights when calculating estimated effects. If we believe that each country is so “special”, that we have to control away country-specific factors when estimating causal effects between two variables, this is one way to go about methodologically. It is important to remember that the data on property rights indicators suffer from relatively short time-series and this might lead to relevant causal effects being left out. FE analysis in short panels also suffer from bias, which could be corrected by using a method developed by Arellano and Bond (1991)²⁶. I use this dynamic panel-data method, based on GMM, and include one lag of the dependent variable on the right hand side of the equation. I test all the specifications from table 4.8, and no variable, not even the lagged property rights variable, becomes significant on a 5%-level in any of the specifications. The sign of the democracy-coefficients are “right” for 6 of 8 specifications, and the t-values are typically close to or above 1. In the extended model with FHI and WGI, the FHI-coefficient has the highest t-value of any variable with -1,4. With longer time-series, the empirical investigation would become more valid.

Table 4.5: Main results from FE analyses: Coefficients for political regime

Model	Democracy measure	Property rights indicator	Coeff.	P-value	Obs.	Countries
Basic	FHI	WGI (1996-2006)	-0,08	0,000	1140	167
Basic	FHI	G&L (1970-2004)	-0,11	0,004	1061	126
Basic	Polity	WGI (1996-2006)	0,01	0,105	845	145
Basic	Polity	G&L (1970-2004)	0,02	0,004	991	121
Extended	FHI	WGI (1996-2006)	-0,10	0,000	705	118
Extended	FHI	G&L (1970-2004)	-0,02	0,686	890	105
Extended	Polity	WGI (1996-2006)	0,01	0,002	684	116
Extended	Polity	G&L (1970-2004)	-0,01	0,228	870	105

There are two basic explanations for why we find less convincing results in favor of democracy’s positive effect on property rights through FE analysis than in chapter 4.1. The first is that cross sectional based analysis is not able to control away idiosyncratic country-specific factors that affect both political regime type and property right protection in specific ways. The second is that the time dimension of the panels here are not long enough to enable us to capture the whole effect of democracy on property rights, which comes into full right several years after the initial democratization in a country. This implies that cross sectional studies comparing those countries that have long ago democratized and those that have not, is more relevant for answering the research question if we are interested in long run effects.

²⁶ I credit this point to Jo Thori Lind, who mentioned it in a lecture in ECON 4915 at the University of Oslo, spring 2007.

5. Conclusion

This study sought to investigate potential causal effects from political regime type on the protection of private property rights. It reviewed five theoretical arguments pointing to possible causal mechanisms, both general and more context-specific. No certain a priori prediction could be made about the general effect of democracy on property rights, due to different arguments pointing in different directions. The empirical investigation that followed however lent credibility to the hypothesis that the “overall” effect from democracy on property rights was positive and relatively strong. Both PCSTS (OLS with panel-corrected standard errors) analysis, but also to a certain degree IV analysis and Fixed-Effects analysis supported this conclusion. One could take these results as evidence for the proposal that the theoretical effect sketched up in argument 2 dominates the one that was sketched up in argument 1: The negative influence of property protection stemming from power concentration in the hands of authoritarian rulers is more important than that of democratic majorities confiscating and redistributing from rich elites. The lack of institutionalized checks and balances, lack of transparency, lack of accountability generating mechanisms when it comes to political elites and the lack of protection of individual civil and political rights are all influencing negatively on property rights protection under authoritarianism. Better and more nuanced data when it comes to measurement of the property rights variable, and longer time series will allow us to either validate or cast doubts on this very general claim in the future.

Dissecting the empirical material further, the study also pointed to some interesting nuances over the general relationship. I found some evidence for argument 3 on the importance of time dimension of rulers, using different proxies (duration of regime and monarchies). Dictators who expect to be in power for a while, or who expect dynastic succession, protect property better. Young democracies, in accordance with argument 4, do not seem to protect property rights to the same extent as older democracies. There was also some weak evidence for the hypothesis that a low degree of inequality was helpful for property rights protection, but only in democracies. Presidential democracies, according to my results, protect property worse than parliamentary democracies. Further, different types of authoritarian regimes seem to protect property to a very different degree, with military regimes being especially prone to violate property rights. In accordance with the predictions from argument 5, I also found evidence that authoritarian rulers facing an internal security threat were more harmful to protection of property than those who largely feared an ousting by intervention from abroad.

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6. Appendix I: A description of the control variables

I constructed three sets of dummy variables (colonizer, region, main religion). When it comes to colonial history, strong arguments could be made that this historical variables affects both political regime type and protection of private property rights. It is often claimed that former British colonies are much more likely to be democratic than other former colonies. However, also legal structures are strongly correlated with earlier colonial power, since the type of legal structure in a country often follow one more or less inherited legal tradition, like British Common Law or French Civil Law (Djankov et al., 2002). The more general point is that historical variables like colonizing power are often correlated with several institutional practices in a nation, since institutions were often formed in a particular historic context, and institutions show a great deal of inertia (North, 1990, Acemoglu et al., 2001, Mamdani, 1996). I construct dummy-variables for former (1) British and American rule, (2) French rule, (3) Spanish rule, (4) Portuguese rule, (5) Dutch rule (6) Belgian rule and (7) Italian rule. A country is only scored a 1 on one dummy, and this gives rise to classification problems, since some countries have had several colonizers in temporal order, or alternatively have had its territory split between different colonial rulers. We aim at capturing historical sources of influence on existing institutional structures with these variables, and countries are therefore often scored a 1 on the colonizer with the longer rule. If time periods are about equal, the latest colonizer is given prevalence. Togo is for example scored as French and not as German, and Rwanda as Belgian and not as German. When it comes to split countries, the relative sizes of territories matter, and Cameroon is for example classified as French and not British. There are several reasons why geographic area might affect both political and economic institutions, for example geographical/climatic reasons, cultural reasons or spill-over effects from neighbours. I will use a very crude categorization, almost resembling Huntington's "Civilizations" (1997), dividing the world into the regions of (1) Western Europe with North America plus Australia and New Zealand (dropped from regressions in order to avoid perfect multi-collinearity), (2) Eastern Europe and (ex-) Soviet Union, (3) Africa south of the Sahara, (4) Asia, (5) Middle East and North Africa, (6) Oceania (without Australia and New Zealand) and (7) Latin America. Religion is a cultural variable, and it might be the case that religious structures affect both political and economic institutions. I create a dummy for each of the following religions: (1) Protestantism (combined with Anglicanism and other varieties of Christendom related to or springing out of Protestantism), (2) Greek/Russian/Armenian Orthodox Christendom, (3) Catholicism, (4) Sunni Islam, (5) Shia Islam, (6) Buddhism (combined with Taoism and Confucianism), (7) Hinduism and (8) a dummy for indigenous beliefs (mainly African). A 1 is given to the coun-

tries on the dummy which represents a “majority” religion, which is the religion with the largest group of followers in a country. The numbers are drawn from World Book of Facts 2007, Aschehoug and Gyldendals “Store Norske Leksikon”, and if necessary internet-based resources like Wikipedia. There are clear validity and reliability problems with the religion measure, since some countries provide official figures for formal participation in for example a given church, whereas for other countries we have more subjective estimates.

I have three variables stemming from the World Development Indicators. The first control variable is GDP per capita (PPP), which is a measure of income-level in a society. I dealt with the importance of income level for the existence and functioning of institutional structures in chapter 1.3, and no further justification for adding this very important control variable is needed. In addition to income level itself being a central variable, it is highly correlated with several other possibly relevant variables, like for example education level and degree of urbanization, and the importance of incorporating it as a control is therefore extra large. Second, population size might also affect the presence and nature of institutions. Democracy is more prevalent in smaller countries (Knutsen, 2006a), and there might be a priori reasons to believe that it is easier for the public to exercise control over popular decision making in smaller communities. According to the “Olsonian” logic of public good provision, as presented in chapter 3, it might also be a priori expected that it is easier to enforce property rights in smaller communities. Population level is therefore also entered as a control variable. When it comes to natural resources, there is a large literature on the “resource curse”; how natural resources actually retards economic development in many countries, and the main channels are believed to be of institutional character (Karl, 1997, Mehlum et al.2002). Abundance of natural resources might make the stakes of holding political office higher, and increase the incentive for different groups to grab power, establish and hold onto authoritarian rule. Natural resources might also provide leaders with less incentive to establish well-functioning private property rights, since the need to develop a complex, well-functioning industrialized economy is less prevalent, because a revenue base in the form of natural resources already exists. Also, different groups might have a strong incentive to engage in grabbing of resources, minerals like diamonds are for example of high value per unit and easily transferable, and this might lead to a decrease in private property protection in the overall natural resource based economy. The measure used here for natural resource economies relates to energy production, since energy sources like oil and natural gas are among the most profitable natural resources. The more specific measure is kilotons of energy produced divided by GDP²⁷. The numbers are again drawn from the World

²⁷ There are obviously some problems with this measure, since a high growing economy, or an economic policy that is able to use revenues from natural resource extraction to build up other industries and differentiate the economy, will have a lower score than a country with the same resources that does not manage these outcomes. If economic growth and a differentiated economy is partly due to type of political regime, this variable is therefore partly an effect from the regime variable, which should not be controlled away. Take for example Norway and Canada, two resource rich countries. Would these countries have

Development Indicators. The WDI-database is updated until 2006, but many countries lack several years of data, especially on the energy production variable, which is only incorporated in the extensive data.

I also add a time trend variable (in the extensive model), to control for the possibility that there is a common global trend that drives both the average degree of democracy and property rights protection in the sample over the period of time investigated. The decline of Communism, and the claimed hegemonic status of Western type “Liberal, Capitalist and Democratic” societies (Fukuyama, 1991) in the global political discourse, as for example promoted by both the most powerful actors in the international system like the US and the EU, and IGOs like the WTO and World Bank, would lead many to predict that both the number of democracies and the average degree of property rights protection has increased over the period. When it comes to property rights, Minor (1994) for example claims that the evolvement of the global business structures during the eighties and early nineties, highlighting the role of MNC’s, increasingly led LDC’s to abstain from expropriation as a policy tool. Some would also add that the vast network of bilateral investment treaties that has been expanding fast over the last two decades also has had an effect on property rights protection globally. One should however be aware that including such a time trend as a control might actually control away relevant information. This is the case if the observed global trend in the property rights variable is at least partly an effect of increasing average degree of democracy causing increasing average property rights protection over the time period. One last variable that might influence property rights protection is the age of the regime, and I construct a variable on the basis of the duration of the existing political regime. Since a regime in its first years might be especially prone to turbulence of certain sorts I use “logarithm (duration of regime plus one year)” as the variable of choice. As Diermeyer et al. point out, both the opportunities and the incentives to “tinker with property rights” are high, for actors recently obtaining power through for example a democratic transition from communism. One reason is that “the opportunity for arbitrary intervention in the economy by bureaucrats often increases during the transition as the state’s monitoring capacity declines” (Diermeyer et al., 1997:21). This suggests that a possible “political transition effect” on property rights might exist, and that we should control for the fact that certain regimes are very young and not yet fully entrenched, supporting my choice of a log-linear instead of a linear duration variable, since the effect is expected to vanish after a few years. The duration of regime data are gathered from the Polity IV data-set.

Appendix 2. Data-set and output from analysis.

For access to the data-set, in STATA-format, for further clarification of the variables and their operationalizations, or for concrete questions to a specific analysis (data-output etc.) please send an e-mail to carlhk@student.sv.uio.no.²⁸ As mentioned in the text, the data-set is in panel-format (1950-2006), with country-year as unit of analysis. All the results should be reproducible on the basis of the information given in the study. Due to the sheer number of regressions and other analyses performed in this study, I will not include the regression output in the appendix. However, I provide one concrete output for an analysis based on OLS with Panel-Corrected Standard Errors and one based on IV analysis with “Wave” as instrument, just for illustration. Both analyses use what I have in the text called the basic model, FHI as operationalization of regime type and WGI’s rule of law as operationalization of protection of property rights.

OLS with Panel-Corrected Standard Errors

Number of gaps in sample: 485

(note: computations for rho restarted at each gap)

(note: at least one disturbance covariance assumed 0, no common time periods

between panels)

Prais-Winsten regression, correlated panels corrected standard errors (PCSEs)

Group variable: code	Number of obs =	1140
Time variable: year	Number of groups =	167
Panels: correlated (unbalanced)	Obs per group: min =	3
Autocorrelation: panel-specific AR(1)	avg =	6.826347
Sigma computed by pairwise selection	max =	7
Estimated covariances = 14028	R-squared =	0.8665
Estimated autocorrelations = 167	Wald chi2(13) =	259234.68
Estimated coefficients = 25	Prob > chi2 =	0

	Coef.	Panel-	z	P> z	[95% Conf. Interval]
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²⁸ One particular problem I experienced in some of the analyses (not many) with relatively few observations, were that STATA had problems with calculating the estimates based on PCSTS where both the possibility of heterogeneity of errors between panels and contemporaneous correlation of error terms were taken into account. (STATA error message: Impossible to calculate positive semi-definite matrix for errors). I solved this by only taking into account panel heteroskedasticity, thereby having fewer restrictions on the error-matrix (more degrees of freedom since contemporaneous correlation between panels is assumed to be zero). This is probably a negligible problem; I ran estimations both with and without the assumption that contemporaneous correlation =0, for some models where contemporaneous correlation could be taken into account, and the differences in results were extremely small.

		corrected					
		Std. Err.					
islamsunni		0.0732274	0.0438036	1.67	0.095	-0.012626	0.1590808
islamshia		-0.0056432	0.0669323	-0.08	0.933	-0.1368281	0.1255417
romcath		0.0632106	0.0270869	2.33	0.020	0.0101212	0.1163
protestang~d		0.217821	0.0293776	7.41	0.000	0.1602419	0.2754002
orthodoxarm		-0.1409082	0.0432042	-3.26	0.001	-0.2255869	-0.0562296
hindu		0.3126268	0.050648	6.17	0.000	0.2133587	0.411895
budhistkon~o		0.3969124	0.0482893	8.22	0.000	0.3022671	0.4915577
indig		-0.1585712	0.0554622	-2.86	0.004	-0.2672751	-0.0498673
britishame~c		0.1462322	0.0163955	8.92	0.000	0.1140976	0.1783668
french		-0.0128076	0.0279314	-0.46	0.647	-0.0675521	0.0419368
spanish		-0.0815695	0.0321728	-2.54	0.011	-0.144627	-0.018512
portugese		-0.1173533	0.0349289	-3.36	0.001	-0.1858127	-0.048894
netherl		-0.2044677	0.0343869	-5.95	0.000	-0.2718647	-0.1370706
belgium		-0.3617902	0.051613	-7.01	0.000	-0.4629499	-0.2606305
italian		0.6865209	0.0618825	11.09	0.000	0.5652335	0.8078083
africa		-0.1160951	0.0565622	-2.05	0.040	-0.2269551	-0.0052352
asia		-0.0178094	0.0451566	-0.39	0.693	-0.1063147	0.0706958
latam		-0.2641893	0.0526263	-5.02	0.000	-0.3673351	-0.1610436
eaesoviet		-0.0888602	0.0402301	-2.21	0.027	-0.1677098	-0.0100107
pacific		-0.2999809	0.0824026	-3.64	0.000	-0.4614871	-0.1384747
mideanafr		0.4590638	0.0520556	8.82	0.000	0.3570367	0.561091
AggregFHI		-0.2134639	0.0104027	-20.52	0.000	-0.2338528	-0.1930751
WDIGDPPPP		0.00006	2.13E-06	28.19	0.000	0.0000558	0.0000642
population~l		-1.91E-11	4.15E-11	-0.46	0.645	-1.00E-10	6.22E-11
_cons		0.1255489	0.0620957	2.02	0.043	0.0038435	0.2472543
rhos	=	0.4372355	0.2368634	0.3578899	0.3296439	.7285411 ...	0.3158085

IV analysis (Wave)

First-stage regressions

Source	SS	df	MS	Number of obs=	878	
F(24, 853) =	67.33					
Model	1974.34794	24	82.2644973	Prob > F =		0
Residual	1042.24688	853	1.22186035	R-squared =		0.6545
Adj R-squared =	0.6448					
Total	3016.59482	877	3.43967482	Root MSE =		1.1054
						[95% Conf. Interval]
AggregFHI	Coef.	Std. Err.	t	P> t		
islamsunni	2.129755	0.2958731	7.20	0.000	1.54903	2.710479
islamshia	2.514924	0.3947382	6.37	0.000	1.740152	3.289696

romcath	1.008269	0.298392	3.38	0.001	0.4226003	1.593937
protestang~d	0.7404841	0.3102728	2.39	0.017	0.1314965	1.349472
orthodoxarm	1.163077	0.3175847	3.66	0.000	0.5397377	1.786416
hindu	0.4472937	0.3936267	1.14	0.256	-0.3252966	1.219884
budhistkon~o	2.529132	0.3720959	6.80	0.000	1.798801	3.259463
indig	1.024887	0.3434312	2.98	0.003	0.3508173	1.698956
britishame~c	0.3555813	0.1301401	2.73	0.006	0.1001488	0.6110137
french	0.6248638	0.1585244	3.94	0.000	0.3137201	0.9360075
spanish	0.6203391	0.2231892	2.78	0.006	0.1822747	1.058404
portugese	0.9340105	0.277264	3.37	0.001	0.3898109	1.47821
netherl	0.0978403	0.3474078	0.28	0.778	-0.5840341	0.7797146
belgium	2.456223	0.3188887	7.70	0.000	1.830325	3.082122
italian	1.406759	0.4769384	2.95	0.003	0.4706489	2.342869
africa	-0.0227976	0.2644281	-0.09	0.931	-0.5418036	0.4962084
asia	-0.5196487	0.3205917	-1.62	0.105	-1.14889	0.1095924
latam	-0.8999469	0.2826811	-3.18	0.002	-1.454779	-0.3451149
eaesoviet	0.2466716	0.2250206	1.10	0.273	-0.1949874	0.6883306
pacific	-0.1895028	0.3880913	-0.49	0.625	-0.9512285	0.572223
mideanfr	1.339558	0.2438979	5.49	0.000	0.8608475	1.818268
WDIGDPPPP	-0.0000949	9.19E-06	-10.33	0.000	-0.0001129	-0.0000768
population~l	1.14E-09	3.09E-10	3.69	0.000	5.32E-10	1.74E-09
inwave	-0.2844441	0.0942326	-3.02	0.003	-0.469399	-0.0994892
_cons	2.787454	0.4420327	6.31	0.000	1.919855	3.655053

Instrumental variables (2SLS) regression

Source	SS	df	MS	Number of obs =	878
F(24, 853) = 150.61					
Model	672.324691	24	28.0135288	Prob > F =	0
Residual	162.216189	853	0.19017138	R-squared =	0.8056
Adj R-squared = 0.8002					
Total	834.54088	877	0.95158595	Root MSE =	0.43609

wgirulelaw	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
AggregFHI	-0.4320607	0.1306971	-3.31	0.001	-0.6885864	-0.1755351
islamsunni	0.6481298	0.3123004	2.08	0.038	0.0351624	1.261097
islamshia	0.6583246	0.3651674	1.80	0.072	-0.0584072	1.375056
romcath	0.330464	0.1820209	1.82	0.070	-0.0267973	0.6877254
protestang~d	0.371005	0.1600447	2.32	0.021	0.0568774	0.6851326
orthodoxarm	0.1692606	0.2065709	0.82	0.413	-0.2361861	0.5747074
hindu	0.6932601	0.1704997	4.07	0.000	0.358612	1.027908
budhistkon~o	1.046512	0.3625594	2.89	0.004	0.334899	1.758125
indig	0.2700884	0.1923783	1.40	0.161	-0.1075019	0.6476788

britishame~c	0.2198604	0.0753021	2.92	0.004	0.0720613	0.3676594
french	0.1703294	0.1089749	1.56	0.118	-0.043561	0.3842198
spanish	0.1618712	0.1228171	1.32	0.188	-0.079188	0.4029303
portugese	0.0379584	0.1679906	0.23	0.821	-0.2917649	0.3676816
netherl	-0.0451355	0.1388525	-0.33	0.745	-0.317668	0.2273971
belgium	0.3710303	0.3585821	1.03	0.301	-0.3327764	1.074837
italian	1.058054	0.2559118	4.13	0.000	0.5557639	1.560345
africa	-0.1701219	0.1039214	-1.64	0.102	-0.3740936	0.0338498
asia	-0.212494	0.1356234	-1.57	0.118	-0.4786886	0.0537007
latam	-0.5718203	0.1554734	-3.68	0.000	-0.8769756	-0.266665
eaesoviet	-0.013437	0.0979269	-0.14	0.891	-0.2056429	0.1787688
pacific	-0.6436205	0.1518855	-4.24	0.000	-0.9417336	-0.3455073
mideanafr	0.7064891	0.2094455	3.37	0.001	0.2954001	1.117578
WDIGDPPPP	0.0000416	0.0000125	3.32	0.001	0.000017	0.0000662
population~l	1.66E-10	1.87E-10	0.89	0.376	-2.02E-10	5.33E-10
_cons	0.5863847	0.3513391	1.67	0.095	-0.1032059	1.275975

Instrumented: AggregFHI

Instruments:

islamsunni islamshia romcath protestanglicmethod orthodoxarm
hindu budhistkonftaoshinto indig britishameric french spanish
portugese netherl belgium italian africa asia latam eaesoviet
pacific mideanafr WDIGDPPPP populationWDI inwave