Civil liberties and economic development: the role of culture in a property rights approach

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Abstract

This paper is an attempt to contribute to the literature on the relationship between economic development and democratic institutions. The paper focuses on civil liberties and interprets them in a framework in which there is no dividing line drawn between "civil" and "property" rights. An important distinction that is made is rather the one between the "scope" of rights and the level of their enforcement as two different dimensions of a constitutional decision. The paper shows that this framework suggests a possible mechanism for informal factors to affect the level of civil liberties that are provided by a rent-seeking government. The argument is that informal factors that are less benign towards rent seeking will provide more incentives for the rent seeking government to make it possible for a wider scope of rights to be used in production. The paper provides some simple regression results that are in line with the main argument.[1]

Key words: civil liberties, property rights, development
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1. Introduction: civil rights, informal institutions, and development

Economists are a long way from agreement on the role of democracy in economic development. In the literature on economic growth there are three fundamentally different views on the interconnections of economic development and the provision of those freedoms associated with "democracy" usually grouped under the headings political rights and civil liberties (Paldam 2007). According to the first view, since these freedoms put a constraint on the government they reduce the risk of expropriation of income which therefore results in increased incentives to be productive. That is, low expropriation and development is the result of the provision of these freedoms. According to the second view, the causality is just the reverse of what is described by the first. This view – going back in time to at least Lipset's (1959) paper – says that economic development creates a demand for these freedoms. Put simply, civil liberties and political rights are similar to luxury goods and people with low income (and a low level of education) will only consume a disproportionately smaller amount of them than those with a high income (and education).

A third group of theories emphasizes the role of culture and other "third factors" in determining the provision of these freedoms and their interconnections with economic development. This third view is the one which this paper tries to contribute to by trying to give an answer to the question which quite naturally arises when "culture" is seen as a factor enhancing development and civil liberties at the same time. Why is it that the informal factors that are good for economic development are also good at providing civil liberties? Even if we think that both economic development and a wide range of civil liberties are fuelled by "culture" we should not necessarily believe that the same informal factor fuels both. In this paper I will try to provide one reason why we should.

The basic idea of the paper is that these freedoms can be seen as property rights, and, as Coase (1960, p. 44) first pointed out, "a right to perform a certain (physical) action" is a factor of production. The actions made possible by these rights create income, but rights are different in the extent to which the incomes they generate can be expropriated by rent seekers. If societies differ regarding their individual members' willingness to accept rent seeking as a legitimate way of receiving income, this willingness will play a role in the decision concerning the scope of rights. Once the choice of more civil liberties is seen as a decision regarding the scope of rights, this argument provides a reason to believe that an anti-rent seeking culture (or ideology) is a determinant of their presence. An anti-rent seeking culture is

modeled as the cost of enforcing property rights and shown to affect the scope of rights chosen.

The two main predictions of the model are that informal factors that constrain rent-seeking will affect the scope of rights provided by the government and that the correlation of development and civil rights provision is not independent of the source of development.

The next section briefly reviews the literature on the three different explanations concerning the relationship between economic development and civil liberties or democracy. Section 3 provides an interpretation of civil rights in the framework of property rights. By examining the main proposition of those scholars working in this approach this section also argues that an "ideology" that supports "property rights" (freedom of markets) may be different from the one that supports "civil rights". In section 4 I develop a very simple model to understand the interrelationship between rent seeking, culture, and civil rights. Section 5 provides a test of the main hypotheses concentrating on the role of expropriable income.

2. Political rights, civil freedom and economic development – a brief literature review

Seeing economic development and "democracy" as two variables[2] which are correlated in time as well as across countries, there are logically three possibilities to model their relationship. The first is to say that it is democracy that causes development. The second is to say that it is just the other way around and development causes "democracy". The third possibility is to say that there are third factors that make both variables go in step with each other. All the three views are represented in the economics literature.

The first explanation, the one that can be viewed as the institutional mainstream, claims that as democratic institutions are constraints on the political elite they reduce the risk of expropriation. A low risk of expropriation that provides incentives for productive activities is the fundamental variable that determines economic development. That is, political constraints on the elite are fundamental causes of economic development because they provide a solution to the fundamental problem of providing and enforcing property rights (Acemoglu, Johnson and Robinson 2005, North and Weingast 1989, Olson 2000), which is how to make the government use its power to enforce property rights, and not hurt them.

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[2] The work concentrating on this question sees "democracy" as a mix of different institutions providing political rights and civil liberties. These rights and liberties are theoretically different, but they are very closely associated empirically. This may be the reason why most of the studies I will cite do not really emphasize the difference between political rights, civil liberties, and the institutions that make them possible. In the studies I will review below it is often "democracy" that is used as a variable, which includes civil liberties. That is the reason I will not limit this overview only to those works that discuss civil liberties in a narrow sense.

This view has been given much support in the past decade by showing that the most important institutions in economic development are those that constrain political power (Acemoglu, Johnson and Robinson 2001, Acemoglu and Johnson 2005); that it is democracy that comes first, not development or human capital accumulation (Acemoglu et al. 2005 a,b); and that in non-democratic societies the elite can block the introduction of new technologies that would lead to economic development because they fear the political uncertainties that they might bring (Acemoglu and Johnson 2006). This argument is sharpened by BenYishay and Betancourt (2010) who show that civil liberties are the best predictor of economic development – better than other institutional variables.

The view that emphasizes the causality running from development to democracy is usually called Lipset's hypothesis (Lipset 1959, Barro 1996, Paldam 2007). According to this view (Paldam and Gundlach 2008) economic development and the human capital accumulation closely associated with it will cause an increasing demand for democratic institutions. Paldam's (2007) analysis gives support to this view, also referred to as the "grand transition", and to some of the accompanying cultural approaches, although he does not find it relevant that democracy causes growth. This is broadly the same conclusion reached in several other papers (e.g. Paldam and Gundlach 2008, 2012).

Put differently, it is absolutely not clear that there is any causality running from political or civil freedom towards development. Paldam and Gundlach (2012) use Granger regressions and different instrumental variables to compare short- and medium-run effects with long-run effects and find that in the long run the causality that runs from income to democracy is almost overwhelming, while the reverse effect can only be detected in the short run (3 years). They also use variables of the cultural kind and conclude that some of them – such as the share of Protestants and Muslims within the population – matter. In addition, the results lead them to conclude that it is the grand transition view that is correct, and the grand transition can be seen as a long-run constraint on the shorter run link between income and political and civil freedom.

The grand transition thesis is also echoed by those theories and empirical studies of economic development (Gleaser et al. 2004, Easterly and Levine 2012) that show that long-run economic development was determined to a large extent by human capital and probably culture and not by the strategies of colonization (or the initial natural conditions by which it was affected) and by the different political institutions they resulted in, as is suggested by the first view.

It is possible to formulate a third view emphasizing different third factors when explaining the co-movement of democratic institutions and development. Some researchers have done so. As we have just seen, Paldam (2007) cannot reject entirely the idea that culture can account for the development of democracy at least partially, and on the other hand some economists (e.g. Tabellini 2010) also emphasize the role of culture in economic development. Indeed, as shown by Sobel and Coyne (2011), different institutions are closely related and civil liberties most probably reflect some deep-seated cultural element. The fact that, contrary to many other institutional measures, the time series of civil liberties (and of political rights) is stationary can, they suggest, be seen as an indirect corroboration of the assumption that this measure is driven by deep-seated institutional factors that are mainly informal

It is not clear, however that the cultural factors that account for economic development are the same as those that account for the development of democracy. This is shown, for example, by Verspagen (2012) who concludes that the explanatory variables of development should be "specific aspects" of institutions and governance. He draws the important conclusion that "the policy attitude towards markets and financial systems" is the most important institutional characteristic to explain economic growth, while "the democratic nature of the society" is not so important when it comes to growth, but plays a significant role in explaining the general level of development. Indeed, the relationship between civil rights and the growth rate (and not the level of development) is not as clear-cut as it is in the case of the level of development. Blume and Voigt (2007) show that all types of human rights are statistically significant factors in explaining either investment rates or total factor productivity, or both, but they do not confirm the hypothesis that civil rights affect economic growth positively.

In his book on constitutional development in the West Congleton (2011) explains that a liberal ideology was one of the driving forces of democratization, together with the new economic interests and political pressures created by economic development which were made possible by the liberal economic reforms. This ideology is, however, different from those deeper cultural factors such as culture and religion emphasized by other scholars cited in this paper.[3] Following the exchange paradigm of political economy, his interpretation suggests that the advance of political and civil liberties can be seen as a result of a peaceful "constitutional exchange" between different elite groups. Beside detailed historical case studies of the countries in question he applies Granger causality tests of the time series data of

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[3] Note that focusing on the economic history of roughly the same period, McCloskey (2010, 2011), too, emphasizes the "superficial", ideological nature of this change in informal attitudes as opposed to deeper factors such as Protestantism or what is commonly understood by "culture".

these countries (Congleton 2011, pp. 573-610) and his conclusion of the "bootstrapping" nature of political and economic processes are supported by the mutual determination of development and democracy.

That democratic institutions are supported by informal factors are confirmed by some of those who analyzed post-communist Eastern and Central Europe from this point of view. Winiecki (2004) comes to the conclusion that cultural heritage matters a lot in determining post communist success and failure. He also points out that civil liberties have much to do with informal institutions. He includes it in the set of Western "civilizational fundamentals" consisting of "political liberty, law and order and generalized trust" (ibid., p. 143). A similar conclusion is drawn by Krasnozhon (2012) arguing that a dominant Catholic tradition is amongst the determinants of the existence of a consolidated democracy in post-communist countries. This is because the Catholic Church came to emphasize human rights and, for example, gender equality, and became an efficient force against socialism. In line with these, Hodgson (2006) finds Western Christendom a significant factor in determining the success of these countries in the period between 1989 and 2006 in addition to ethnic fractionalization, democracy, and the depth of the recession (measured as the lowest GDP level of the 90's as a percentage of 1989 GDP). However, a higher democracy index is shown to have a negative effect on subsequent growth, which he explains by proposing that the positive effects need more time to develop because these nations have relatively little experience of democracy and democratic culture (ibid., p. 889).

As this review has hopefully shown, there are a great number of possible factors indentified as determinants of development, and especially democracy. As a result, it is not clear that the same informal factor can account both for economic development and for an increase in civil liberties. This paper addresses this issue by arguing that informal factors that lower the cost of constraining rent seeking will also contribute to the widening of the scope of rights by making their provision a good deal for rent seekers.

3. Freedom as the scope and enforcement of property rights

To develop my hypothesis I will apply the property rights approach to civil rights. The main proposition is that labeling some rights "property" and others "civil" is an arbitrary way of thinking in this approach. Hence an application of this way of thinking makes it possible to see "economic freedoms" and "civil freedoms" in a unified framework. In addition, seeing what the great thinkers of the property rights approach argued *against* shows that economic

and civil liberties are not seen as one by the general public. This implies that it is far from obvious that those informal factors that support civil liberties will support market institutions, too.

In this classical liberal interpretation there is no difference between economic freedom and civil freedom. Freedom is defined as an absence of coercion (Hayek 1960:11-21). More precisely, some level of coercion is always present, because some coercion is needed to enforce the rules ensuring freedom. Freedom is at its maximum, when coercion – including private coercion – is at its minimum. While, for example F. A. Hayek is generally seen as a champion of economic freedom, in one of his magnum opuses he came to the conclusion that (Hayek 1960, p. 35)

[t]he importance of freedom ... does not depend on the elevated character of the activities it makes possible. Freedom of action, even in humble things, is as important as freedom of thought. It has become a common practice to disparage freedom of action by calling it "economic liberty". But the concept of freedom of action is much wider than that of economic liberty, which it includes; and what is more important, it is very questionable whether there are any actions which can be called merely "economic" and whether any restrictions on liberty can be confined to what are called merely "economic" aspects. Economic considerations are merely those by which we reconcile and adjust our different purposes, none of which, in the last resort, are economic (excepting those of the miser or the man for whom making money has become an end itself).

The same view is formulated by Knight (1922, p. 472) when he says that

The idea of a distinction between economic wants and other wants must be abandoned. There is no definable objective, whether subsistence, gratification of fundamental impulses or pleasure, which will serve to separate any of our activities from the body of conduct as a whole.

That is, there is no way to decide whether a certain kind of human action is "economic" or not. However, if this decision is impossible, it is also impossible to decide whether a certain kind of freedom is "economic" or not, since this label should describe the action that it makes possible.

The unified view of "economic" and "civil" liberties has sometimes been cited as an argument against those views that hold civil freedom in high esteem but ignore the importance of economic freedom. If they value the first, the argument goes, they should value the second, too. Coase (1977) expresses the same view illustrating the fuzzy borders between these different "rights" by concentrating on freedom of speech and advertising. He carefully describes the decisions of different courts (mainly those of the Supreme Courts) to illustrate how vague the difference between civil and "economic rights" is. He sheds light on the idea that there is not a general principle that is meaningful from an economic point of view and can be applied to delineate those "activities" that must be defended as constitutional rights from those that should not. Director (1964), too, argues that there is no conceptual difference between economic and "intellectual" freedom: both can be defended on utilitarian or ethical grounds. What is more, they were seen in this unified manner before the early 20th century. In addition, in the early liberal tradition (of Hume and Smith) the argument for civil freedom was separated from the argument for democracy.

Clearly, the authors cited above are arguing against a view that sees economic and civil freedoms as different to such an extent that it is possible to support one of them but reject the other. The mere fact that the difference is usually made between "economic" and "civil" freedom shows that people may have different attitudes to these two different kinds of freedom.

If there is no such thing as economic freedom as opposed to civil freedom, it is difficult to see what the literature means when the authors engaged say that economic freedom leads to economic growth. The answer is, of course that it is not a general theory of freedom that is used to determine economic and civil freedom, but these measures are defined by their construction.[4]

To formulate a meaningful difference between these two kinds of rights or freedom I will apply the "property rights approach" (Alchian and Demsetz 1973). Alchian and Demsetz (1973, p. 17) give a very concise description of what is meant by property rights in this tradition when they say that "[w]hat are owned are socially recognized rights of action", that is, "[w]hat is owned are *rights* to *use* resources, including one's body and mind, and these rights are always circumscribed, often by the prohibition of certain actions" (emphasis in

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[4] There are two indexes of economic freedom that are widely used by researchers. For the details of their construction see Gwartney, Lawson, and Hall (2012) and Miller, Holmes, and Feulner (2012). Their conceptual bases are very similar. The reason why I analyze the conceptual basis of the first in the following paragraphs is that the concept of the Fraser Institute's Index is also outlined in journal articles, too (Gwartney and Lawson 2003, Easton and Walker 1997) and not only in the reports published by these institutes.

original). It is clear that from this perspective civil rights are property rights. As Barzel (1989, p. 2., footnote 1) makes it explicit, "[h]uman rights are simply part of people's property rights. Human rights may be difficult to protect or to exchange, but so are rights to many other assets."

From this point of view it would require us to define those use rights that are economic to get a measure of economic freedom, and, similarly one should be able to define "civil use" of an asset to get a measure of civil rights. It is not clear whether there is a general criterion to make this categorization. Gwartney and Lawson (2003, p. 408) argue that economic freedom reflects a "different sphere of human interaction", although "the foundation of political and civil liberty is identical to that of economic freedom." But they do not provide the reader with a general concept to establish a difference.

Such a criterion might come from Vanberg (2001, p. 23). He proposes that the definition of property rights given above confuses two different dimensions of property rights which he calls "the issue of assigning rights" which answers the question "who owns what?" and the "issue of defining rights" which answers the question of "what does it mean to own something?". By this taxonomy Vanberg (2001) is clarifying the difference between the view of laissez faire liberalism and that of constitutional liberalism. Laissez faire liberals put great emphasis on the assigning issue, most importantly, that of assigning rights between the state and private players. This is roughly the way Gwartney and Laswon (2003, p. 406) argue, too, writing that "[i]nstitutions and policies are consistent with economic freedom when they provide an infrastructure for voluntary exchange, and protect individuals and their property from aggressors seeking to use violence, coercion, and fraud to seize things that do not belong to them". Clearly this definition is based on the question, "who owns what?" and not on the meaning of ownership, since one is supposed to know what it means that something "belongs to someone". This allows us to interpret economic freedom as a measure of the extent to which the government in a country is reallocating property rights from its original owner to someone else. As shown by the construction of the Economic Freedom of the World index (Gwartney, Lawson, and Hall 2012) or the Index of Economic Freedom (Miller, Holmes, and Feulner 2012) this could happen through direct redistribution, by a legal system and regulation that discriminates or that works with high transaction costs, by inflation, by restrictions on international trade, and on business inside the borders. [5]

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[5] The Fraser Institute's Economic Freedom of the World Index has five areas: (1) size of government, (2) legal structure and the security of property rights, (3) access to sound money, (4) freedom to trade internationally, and (5) regulation of credit, labor and business. See Gwartney, Lawson, and Hall (2012) for a more detailed

The two Vanbergian dimensions are, however, implicitly included in the classical article by Alchian (1977[1965], p. 130) which claimed that (emphasis added)

By a system of property rights I mean a method of assigning to particular individuals the "authority" to select for specific goods, any use from a nonprohibited class of uses. ... the concepts of "authority" and "non-prohibited" rely on some concept of enforcement or inducement to respect the assignment and scope of prohibited choice

Vanberg's (2001) two dimensional theoretical structure may be useful to differentiate civil rights from economic freedom. I suggest applying a simple structure according to which economic freedom refers to the allocation of rights between the state and the private players while civil rights are mainly about the scope of rights that are "socially recognized". For example, by putting heavy restriction on business the government is re-allocating income from consumers to some privileged group. But if it is the freedom of expression that is restricted then no private player can use their own asset to express ideas which government officials do not like. This is in line with the general expression of human rights according to which "human rights as we know them today are mainly political norms dealing with how people should be treated by their governments and institutions" (Nickel 2013). I do not claim that every kind of human right fits the property rights approach. It is only individual and negative rights that do. This is why I confine the discussion to civil rights and not human rights.[6]

Freedom of expression seems to be a good example to explain the idea that the enforcement of freedom (assignment of rights) is a separate decision from the definition of rights. As it is expressed in the United Nations' Universal Declaration of Human Rights (1948), "[e]veryone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers". Regarding that some persuasion is included in every sector of the economy, some persuasion is needed for every market

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exposition of these areas. The Index of Economic Freedom of the Heritage Foundation aggregates ten freedoms: property rights, freedom from corruption, fiscal freedom, government spending, business freedom, labor freedom, monetary freedom, trade freedom, investment freedom, financial freedom. See Miller, Holmes, and Feulner (2012) for a more detailed exposition of these areas.

[6] In addition civil rights must be seen as different from political rights. The fact that these two sets of rights are conceptually different, too, is expressed, for example, in the views held by some great classical liberal thinkers who supported civic freedom fully but were not democrats at all (Director 1964, pp. 3-4).

transaction (McCloskey and Klamer 1995)[7]. The market can be seen as a social space with perpetual conversation between the players (Storr 2008). As Storr (2008, p. 148) concludes "erecting trade barriers also locks off potential conversations and access to potential dialogical partners". This means that you cannot weaken the enforcement of economic freedom alone, because the market is a "social space" where "commercial" and "non-commercial" activities take place, too. By preventing some trading you will prevent some talking. Once it is decided what scope of rights are non-prohibited it becomes very hard to enforce various groups of property rights variously.

4. A simple theory of the provision of civil rights

In the following three subsections I will present a model that is built on the insights acquired in the previous section in the spirit of the property rights school. In this spirit the players – the producers and the rent seekers – are modelled as making a decision concerning the scope of rights to be enforced and the level of enforcement. It will be demonstrated that whether or not a wide scope of rights are enforced depends on the cost of limiting rent-seeking.[8] This cost is deemed to result from cultural factors.

4.1. Enforcement, culture, and expropriability

The argument of this paper rests on two fundamental assumptions. One is that informal factors (referred to as "culture" for convenience) which can be more or less benign towards rent seeking activities determine the enforcement costs of property rights, while the other is that the incomes that different rights generated to the owner are expropriable to varying degrees.

The idea of interpreting enforcement costs as a measure of "culture" comes from the view that formal and informal institutions must be in line with each other, so that one can have a well functioning market system. Boettke (2012, pp. 150-151) writes for example that,

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[7] Note also, that Sen (1999, p. 6.) uses a similar example to illustrate the point of a freedom-centered normative argument when he writes that "[t]he freedom to exchange words, or goods, or gifts does not need defensive justification in terms of their favorable but distant effects; they are part of the way human beings in society live and interact with each other (unless stopped by regulation or fiat)"

[8] The cost of enforcement plays an important role in Barzel's (1989, p. 84) insights on the abolition of slavery when he says that "[b]y the end of the nineteenth century, slavery had largely been abolished, perhaps because the costs of policing the institutions exceeded its gains." That is, the cost of enforcing the property rights of the slave owners became so high that it did not pay off to enforce them. This suggests that the cost of enforcement is the most important determinant of whether or not an activity is protected by force. However, this quote does not specify whose gain and whose cost matter. In a somewhat similar argument examining religious liberty, Gill (2005) also emphasizes – among other things – the enforcement costs of religious hegemonies and regulations of entry to the religious market.

we must also address the question of enforcement of the rules of the game. In a world where the informal rules (norms) legitimate the formal rules, the costs of enforcement will be lower, and in a world where the informal rules are in conflict, the costs of enforcing the formal rules may often be prohibitive

Stringham (2011) explains carefully why internal moral constraints are important to maintain a market economy giving this proposition a corroboration that is based on theory, empirical research, and common sense. External constraints, he argues, are not enough to maintain a well functioning market which means that the rules of the market will be more costly to enforce if they are not backed by morals. That is, formal constraints aimed at enforcing market rules will have an easier task if these formal constraints are in line with the moral ones. The cost of enforcing property rights can thus be seen as a measure of the extent to which social norms legitimate the rules of private property by attributing a low payoff to rent seeking.[9]

This relationship between enforcement cost and the attitude toward market exchange can also be derived from Buchanan (1994) whose main point is that "[t]he ordering over goods cannot be separated from the means through which goods are expected to be secured" (ibid., p. 127). As a result, once rent seeking as a means is condemned to a larger extent than market exchange as a means, enforcing market rules will be less costly.

The second assumption is closely related to the property rights view elaborated in section 3. If the non-prohibited class of uses defined by property rights are wider, the individual has more opportunities to generate income. However, the incomes different rights generate will not be the same in terms of their expropriability.

The idea behind this assumption is that the increase in income brought about by a protection of civil rights has a nature that makes it more difficult to transfer and, as a result, to be expropriated by the government. This appropriable nature of the higher income caused by civil rights protection is also emphasized by BenYishay and Betancourt (2012). As they write, first generation human rights (civil liberties such as the freedom of expression) provide

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[9] The experimental evidence presented by Campos-Ortis et al. (2012) supports the notion that the attitudes towards cooperation and against rent seeking (theft) are different across countries and are related to economic performance. Campos-Ortis et al. (2012), for example, show that subjects in experiments are more cooperative and prefer production over theft and protection activities to a larger extent in situations in which there is a high level of generalized trust, governance and formal institutions are of higher quality, and the feeling of a lack of safety is weaker

indirect benefits and generate rents that are more easily appropriable by politicians than the rent generated by second generation human rights.

The next two subsections will specify these two assumptions to argue that a change in enforcement costs will lead to a wider scope of rights by increasing the income that can be shared between rent seekers who can provide these rights and producers who are willing to pay for them.

4.2. Rent seeking and the enforcement of rights

Assume that there is a range of rights that can be provided to a producer. These rights can be ordered on a scale [0,1]. Producers use a right $i \in [0,1]$ to generate income. Different rights provide different mixes of expropriable and non-expropriable income. The potential expropriable income of a producer is assumed to be

$$Y = \int_0^s f(i,H)di = \int_0^s a(i)\delta H di = A(s)\delta H, \qquad (1)$$

where $\delta > 0$, $1 \geq s > 0$ and *a(i)* is the expropriability function showing that part of income δH which is expropriable through rent seeking. *H* is the amount of resources used in production, while *s* represents the border between non-prohibited and prohibited class of uses.

The function *a(i)* is assumed to be shaped by two broad factors. On the one hand, it is determined by the physical technology used by the producers. At a higher level of specialization the production process becomes more complex, more "institutions-intensive"[10] making it more difficult for the government to expropriate the income that is generated by it. On the other hand, *a(i)* is shaped by the formal institutions that explicitly constrain expropriation. As was mentioned in section 2, the idea of a constraint on expropriation plays a crucial role in understanding the role of (political) institutions in economic development.

The decision regarding the scope of rights is made by the rent seekers. As a result, the scale of rights [0,1] reflects a descending order of expropriability: the first right that is provided will be the one that can generate the highest level of expropriable income, and so on. This leads us to assume that

$$a(0) = 1, \ a(1) = 0, \ a_i(i) < 0, \ a_{ii}(i) > 0, \ \lim_{i \to 0}[a_i(i)] = -\infty, \ \lim_{i \to 1}[a_i(i)] = 0, \qquad (2)$$

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[10] This expression was used by Coase (2012) in a column and explained further by Kling (2013) in another column. As Kling (2013) writes, in an economy that is highly institutions-intensive "the concept of property has become more difficult to define, the economic entities have become more difficult to locate in time and place, the proportion of wealth that is intangible has risen, and earnings have become increasingly contingent on social constructs rather than on individual attributes". In addition, in the dominant sectors of such an economy "the very definition of 'output' is not clear".

where lower indices denote the first and second derivatives of *a(i)*. The function *a(i)* is thus assumed to have the shape illustrated in Figure 1.

Figure 1 The expropriability function *a(i)*
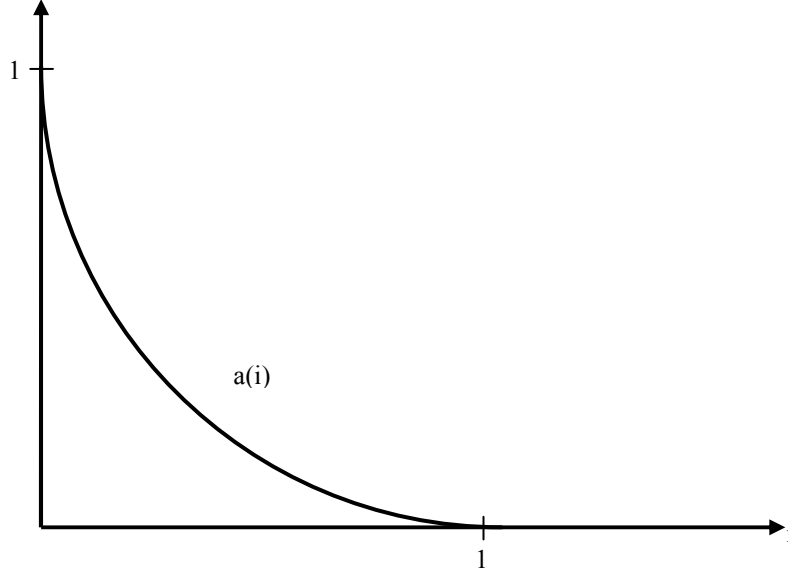
The producers make the decision as to how much of their resources they will spend on enforcement as opposed to production. Their resource constraints can be described as

$$H + s\theta gH = e \tag{3}$$

where *e* is the resource endowment of the producer, and *g* is the ratio of resources spent on the enforcement of right *i* to the resources used in production (*H*). The parameter θ describes the efficiency of enforcement: to reach a level of enforcement *gH*, the producer must give up θgH units of resources for each right that is provided to him.

The share of income that *is* expropriated is determined by the relative enforcement level *g* and the number of rent seekers as compared to producers, *r*. The producer will receive a *p(r,g)* share of the income generated by right *i*, where

$$p(r,0) = 0, \ p(0,g) = 1, \ p_r(r,g) < 0, p_g(r,g) > 0, \ \lim_{g \to \infty}[p_g(r,g)] = 0, \ \lim_{r \to \infty}[p_g(r,g)] = 0,$$

$$p_{gg}(r,g) < 0, \text{ and } p_{rr}(r,g) > 0. \tag{4}$$

The producer chooses the level of *g* so as to maximize his or her non-expropriated income:

$$\text{Max}_g \left\{ \int_0^s p(r,g)a(i)\delta H(g)di \right\}, \text{ such that}$$

$$H(g) = \frac{e}{1 + s\theta g}. \tag{5}$$

Solving this problem gives the first order the condition

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$$\frac{p_g(r^*,g^*)}{p(r^*,g^*)}+\frac{H_g(g^*)}{H(g^*)}=0 \text{, or} \tag{6}$$

$$p_g(r^*,g^*)=p(r^*,g^*)(1+s\theta g)^{-1}s\theta . \tag{7}$$

The market for rents is cleared. That is, in equilibrium, the income of a rent seeker must be equal to the income of the producer:

$$p(r^*,g^*)Y=\frac{1}{r^*}[1-p(r^*,g^*)]Y \tag{8}$$

which is the same as

$$p(r^*,g^*)=\frac{1}{r^*+1} . \tag{9}$$

The decision on the scope of rights is made by the rent seekers. They solve the problem

$$\underset{s}{\text{Max}}\left\{\frac{1}{r^*(s)}(1-p(r^*(s),g^*(s)))A(s)\delta H[s^*,g^*(s)]\right\}, \tag{10}$$

where $r^*(s)$ and $g^*(s)$ are the solutions of (7) and (9).

Because of equation (8) this is equivalent to saying that the government will set *s* in order to maximize the non-expropriated income of the average producer:

$$\underset{s}{\text{Max}}\left\{p(r^*(s),g^*(s))A(s)\delta H^*[s^*,g^*(s)]\right\}. \tag{11}$$

Assuming that there is an $0<s^*<1$ that solves this problem, s^* satisfies

$$\left\{\frac{p_g[r^*(s^*),g^*(s^*)]}{p[r^*(s^*),g^*(s^*)]}+\frac{H_g[s^*,g^*(s^*)]}{H[s^*,g^*(s^*)]}\right\}g_s^*(s)+\frac{p_r[r^*(s^*),g^*(s^*)]}{p[r^*(s^*),g^*(s^*)]}r_s^*(s^*)+\frac{H_s[s^*,g^*(s^*)]}{H[s^*,g^*(s^*)]}+\frac{A_s(s^*)}{A(s^*)}=0 . \tag{12}$$

The first term on the left-hand side of (12) must be zero because of (6). By noting that $A_s(s^*)=a(s^*)$ because of (1), the condition above breaks down to

$$B(s^*)\equiv\frac{a(s^*)}{A(s^*)}=-\frac{p_r[r^*(s^*),g^*(s^*)]}{p[r^*(s^*),g^*(s^*)]}r_s^*(s^*)-\frac{H_s[s^*,g^*(s^*)]}{H[s^*,g^*(s^*)]}\equiv C(s^*). \tag{13}$$

The left-hand side of equation (13) can be seen as the marginal benefit of increasing the scope of rights that derives from the higher income that is generated by being able to exercise a wider scope of rights. The right-hand side is the marginal cost of increasing the scope of rights. First, a larger scope of rights will reduce expropriable income by increasing the number of rent-seekers because an increase in the number of rent seekers will reduce the share of income the producers receive. Second, as a result of a higher number of rent seekers the

producer will spend more resources on enforcement and, as a result, less resources on production.[11]

To make the solution of (7), (9) and (13) possible, following Grossman and Kim (2000, p. 177) and Grossman (2002, p. 36) suppose that

$$p(r,g) = \frac{g}{r+g}. \tag{14}$$

Using this specific rent seeking technology, the conditions regarding the producer's problem (equations (7) and (9)) become

$$\frac{r^*}{\left(r^* + g^*\right)^2} = \frac{g^*}{r^* + g^*}\left(1 + s\theta g^*\right)^{-1} s\theta, \tag{15}$$

$$\frac{g^*}{r^* + g^*} = \frac{1}{r^* + 1}. \tag{16}$$

Solving these for g^* and r^* gives

$$g^*(s) = 1, \tag{17}$$

and

$$r^*(s) = \theta s. \tag{18}$$

Knowing these best reply functions the (rent seeking) government will set the scope of rights so as to satisfy the condition (13)

$$B(s^*) \equiv \frac{a(s^*)}{A(s^*)} = \frac{2\theta}{1 + \theta s^*} \equiv C(s^*). \tag{19}$$

It can be shown that $B_s(s) < 0$ and $B_{ss}(s) > 0$. Assuming that $\theta < 1/2$ and that $B_{ss}(s) > C_{ss}(s)$ there is an $0 \le s^* \le 1$ that satisfies the necessary conditions of (11)[12]. This equilibrium is illustrated in Figure 2.

The model just described can be seen as a simple model of a constitutional exchange in which producers and rent seekers are the two parties. Rent seekers will provide a larger scope of rights when it pays off; that is, when total rent is increased by this decision. This happens if producers use the new rights provided to them to increase production by more than the loss resulting from an increasing level of rent seeking (r(s)). In equilibrium these two effects are equal on the margin.

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[11] There is a third and a fourth effect, too. The producer will change the amount of resources that is spent on the enforcement of a certain right. This also results in a change in the amount of productive resources. The sum of these two effects on expropriable income is zero, however, as shown by equation (6).

[12] See the Appendix. Note that in the Appendix it is also shown that the second order condition of problem (5) holds, too.

Figure 2 The equilibrium level of the scope of rights
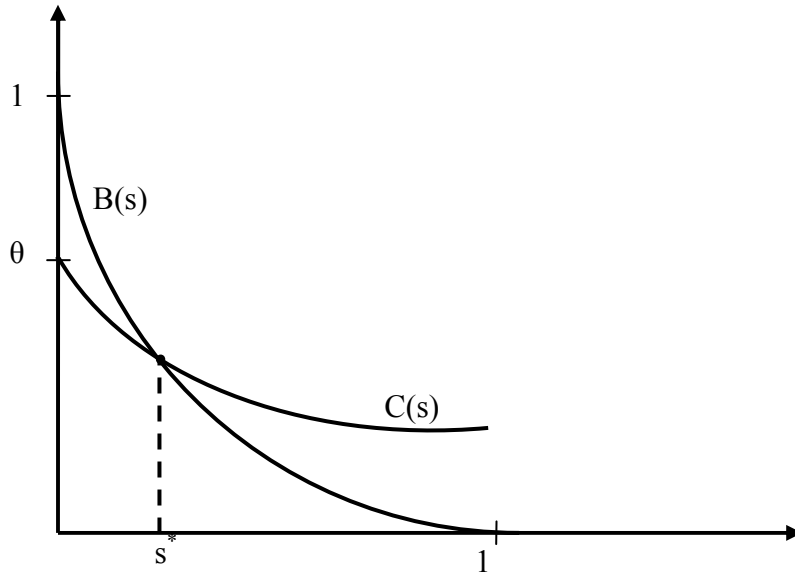
4.3. Income differences and the scope of rights

In the model above per capita income in equilibrium is

$$I = p(r^*(s), g^*(s)) A(s) \delta H^* [s^*, g^*(s)] = \frac{\delta A(s^*) e}{(1 + \theta s^*)^2} .$$ (20)

This allows us to make some predictions regarding the conditions under which the scope of rights will be correlated with income.

The first case, when the scope of rights and income go in step, is an "improvement" in culture, a decrease of θ. Note that by using equation (20) and the results in section (4.2) it is possible to show that

$$\frac{1}{I} \frac{dI}{d\theta} = \frac{I_{s^*}}{I} \frac{ds^*}{d\theta} + \frac{I_\theta}{I} < 0 .$$ (21)

To see this consider, on the one hand, that

$$\frac{I_{s^*}}{I} = \frac{a(s^*)}{A(s^*)} - \frac{2\theta}{(1 + \theta s^*)^{-3}} = \frac{2\theta [(1 + \theta s^*)^2 - 1]}{(1 + \theta s^*)^3} > 0$$ (22)

because the equilibrium condition (19) holds. Further, totally differentiating equation (19) with respect to s^* leads to the result that

$$\frac{ds^*}{d\theta} = \frac{C_\theta(s^*)}{B_s(s^*) - C_s(s^*)} < 0$$ (23)

because

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$$C_\theta(s^*) = \frac{2}{(1+\theta s^*)^2} > 0, \text{ and} \tag{24}$$

$$B_s(s^*) - C_s(s^*) < 0 \tag{25}$$

the latter inequality being the condition of the equilibrium.[13]

On the other hand consider that

$$\frac{I_\theta}{I} = -\frac{2s^*}{(1+\theta s^*)} < 0. \tag{26}$$

Inequality (21) means that when culture changes in such a way that it is less costly to contain rent seeking, the rent-seeking government will be willing to provide more rights in exchange for the higher income this action brings.

The second condition under which the two variables in question are correlated is a rights-biased technological change. Imagine that the technology is improved so that exercising a right will lead to a higher income. At the same time the expropriability of rights is reduced so that

$$\frac{a^1(i)}{a^2(i)} > \frac{a^1(j)}{a^2(j)}, \ i > j \tag{27}$$

when the expropriability function reduces to $a^2(i)$ from $a^1(i)$. As illustrated in Figure 3, this means a disproportionately larger decrease of expropriability at the "lower order" rights. This means the different rights become more similar in terms of the expropriability of income they generate.

Such a change in expropriability will increase the benefit of an increasing scope of rights from the point of view of the rent seeking government, because $B^1(s)$ will change to $B^2(s)$ so that

$$B^1(s) = \frac{1}{\int_0^s \frac{a^1(i)}{a^1(s)}di} < \frac{1}{\int_0^s \frac{a^2(i)}{a^2(s)}} = B^2(s), \text{ since } \frac{a^1(i)}{a^1(s)} > \frac{a^2(i)}{a^2(s)} \text{ if } s > i. \tag{28}$$

As shown in Figure 4 such a change in expropriability will increase the scope of rights. In addition, if the improvement in technology (δ) is large enough, it will also increase total income.

There are exogenous factors which, when changed, will change equilibrium income but will not increase the equilibrium scope of rights. Considering equation (20) and equation (19),

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[13] See the Appendix for a proof that this holds.

it is clear that an exogenous increase in technology (δ) or in endowments (e) will increase equilibrium income but will not change the equilibrium scope of rights.

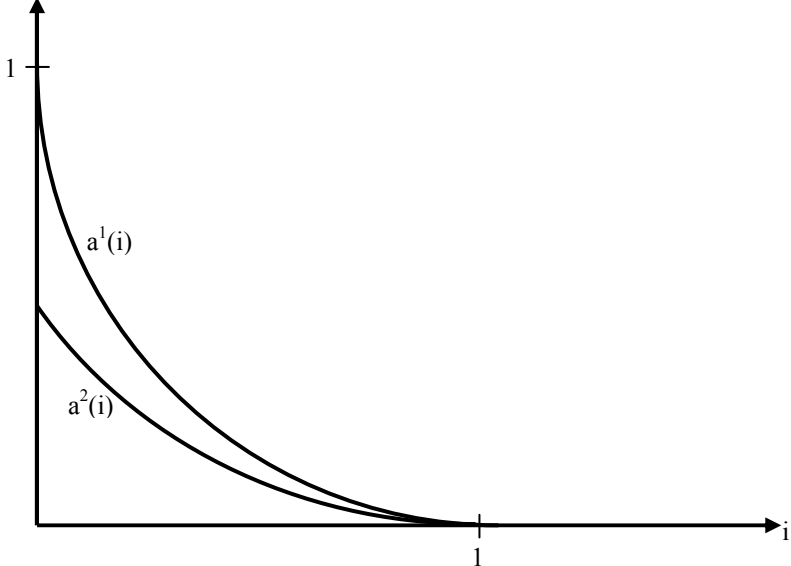**Figure 3** The effect of a decrease of expropriability on *a(i)*

Figure 4 The effect of a decrease of expropriability on the equilibrium scope of rights
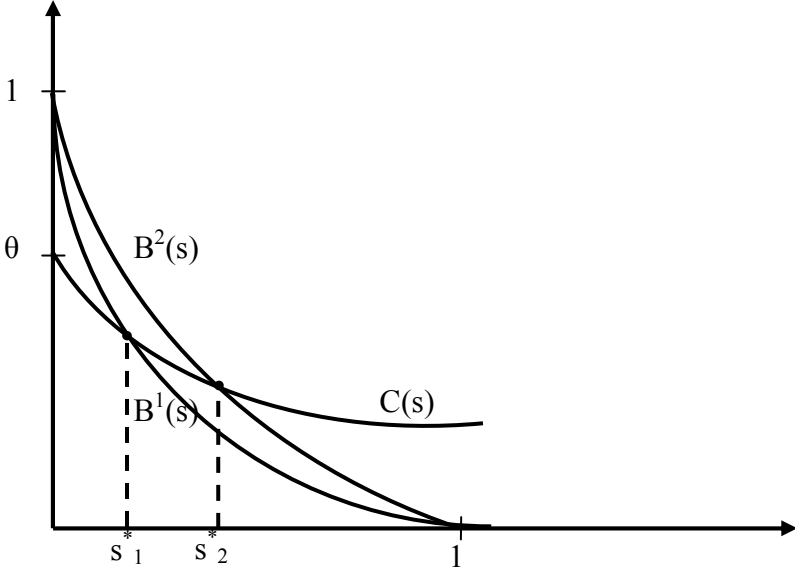
To sum up, the model predicts that there are two crucial factors to explain why some countries have more civil liberties (understood as a higher scope of rights) and a higher income at the same time: a culture that is more anti-rent seeking and a technology that is more rights-biased. A more benign attitude towards the market and a harder-to-expropriate nature of income will provide incentives to the rent-seeking government to provide a higher scope of rights.

5. The role of expropriability and culture in providing civil rights

The argument outlined so far gives emphasis to two factors. On the one hand it is proposed that the non-expropriability of the incomes generated by a wider scope of rights is an important factor determining whether civil rights will be provided and enforced by the government. Second, the argument highlights the role of the informal factors in the provision of civil rights and says that pro-market informal factors are the same as those that are needed for civil rights.

Put differently, the model predicts that formal constraints on expropriation are only one side of the process determining the scope and enforcement of rights. The other side is rent seeking, which is partially determined by an anti-rent seeking culture. Reduced expropriability, on the other hand, is both a result and one of the causes of a wider scope of rights in the simple story of section 4. This is implied by the function *a(s)* and *A(s)* (as defined in equations (1) and (2)). As a result, the model predicts that

(1) culture will have an effect on the provision of civil rights even if formal constraints on expropriation are taken into consideration;

(2) the share of expropriable income will be reduced by a wider scope of rights (civil liberties) even if formal constraints on expropriation are taken into consideration. This implies that a stronger civil rights protection will have a larger effect on income with low expropriability than on income with high expropriability.

The following paragraphs will try to test whether cross country correlations between the variables in question are in line with these predictions, leaving more detailed econometrics to a possible further paper.

It is a well-known fact that both the "constraints on executives" and the civil liberties measures are positively correlated with economic development. As was mentioned in section 2, Betancourt and BenYishay (2010) show that civil liberties are better predictors of income than constraints on executives are. Seeing this fact through the prism of this paper, the explanation lies in the idea that civil rights are correlated with income directly and they are also correlated with a better culture, which in turn increases income, thus not only widening the scope of rights but acting indirectly, too (see equation (21)).

Table 3 presents a very simple test of prediction (2). The data come from the World Bank project (2006, 2011) assessing the wealth of nations. In doing so differences are made between produced wealth, natural wealth, and net foreign assets. Intangible wealth is calculated as the difference between total wealth and the three other elements of wealth just

mentioned, and total wealth is estimated based on the sustainable path of consumption (World Bank 2011, pp. 94-96). Tangible wealth is thus the sum of produced and natural capital together with net foreign assets which account for only a very tiny share of the total.

The extent to which executives face formal constraints are the *Xconst* variable of the Polity IV database (Marshall, Jaggers and Gurr 2011a). Standardized authority scores are decoded following the methods Marshall, Jaggers and Gurr (2011b, p. 17) apply in the case of the *polity* variable to derive the *polity2* variable. The variable of civil liberties is that of Freedom House (2012). Finally both variables are standardized so that the results can be compared. The sample thus runs over the years between 1972 and 2010 and includes 136 countries in an unbalanced panel structure.

The prediction is confirmed as far as civil liberties are concerned since comparing column 1 and 6 shows that while total wealth is affected by a higher civil rights protection, non-intangible wealth is not. On the other hand, the strength of executive constraints is not significantly correlated with either sort of wealth. In addition, when it comes to total wealth, civil liberties are correlated with this, even if the variable of constraints on executives is included as an independent variable.

Table 3 Fixed-effects regressions: intangible and non-intangible wealth

	log of total wealth per capita			log of tangible capital per capita		
executive constraints		0.021 (0.94)	-0.051 (-1.94)**		0.032 (0.92)	0.017 (0.49)
civil liberties	0.171 (5.40)***		0.195 (6.12)***	0.047 (1.21)		0.039 (0.95)
within R^2	0.149	0.003	0.162	0.007	0.004	0.009
between R^2	0.430	0.292	0.431	0.263	0.160	0.243
number of obs.	377	377	377	377	377	377
number of countries	136	136	136	136	136	136

T-statistics are in parentheses, standard errors are clustered by country. Letters in the upper index refer to significance: ***: significance at 1 %. T-values without an index mean that the coefficient is not significant even at the 10 % level.

Similar results can be seen in Table 4. Here economic freedom is included as an independent variable as provided by Gwartney, Lawson & Hall (2012). The economic freedom variable in Table 4 is the standard version of the chain-linked overall index of economic freedom. That is, instead of country fixed effects, here economic freedom is included, and instead of a panel setting a cross-country setting is used here which may be a better description of the long-run effects that are presumed to be behind the logic described in this paper. All variables are for the year 2005. As these results show, civil liberties do not significantly affect tangible wealth across countries, while they affect the value of tangible

wealth, as well as its share of total wealth. Economic freedom is, however, a significant determinant of total wealth, but not of the share of intangible wealth.[14]

Table 4 Wealth, economic freedom, and civil liberties

	Dependent variable:		
	log of total wealth per capita	log of tangible wealth per capita	the share of intangible wealth
constant	10.324 (82.97)[***]	9.463 (69.19)[***]	0.505 (2.11)
economic freedom	1.237 (6.35)[***]	1.039 (5.07)[***]	0.125 (1.63)
civil liberties	0.518 (3.33)[***]	0.193 (1.04)	0.132 (3.61)[***]
log of total wealth per capita			-0.003 (-0.11)
R^2	0.649	0.461	0.299
adj. R^2	0.642	0.451	0.279
number of countries	113	113	113

T-statistics are in parentheses, standard errors are robust. Letters in the upper index refer to significance: [***] : significance at 1 %. T-values without an index mean that the coefficient is not significant even at the 10 % level.

To see the validity of prediction (2) it is possible to use the relatively new data of the Institutional Profiles Database (IPD) which includes data on nine "institutional functions" within four "sectors" (de Crombugghe et al. 2010)[15]. The data come from answers to a questionnaire sent to the economic mission offices of the French Ministry for the Economy, Industry and Employment (MINEIE) and to the agencies of Agence Française de Développement (AFD) present in the country in 2009 .This data was aggregated by Verspagen (2012) with principal component analysis. From this database including 123 countries and 92 kinds of data for the year 2009 which is already aggregated to some extent, Verspagen (2012) indentifies five important principal components which he calls (1) efficient democracy, (2) positive market attitude, (3) market steering, (4) development of the financial system, and (5) development of social relations[16].

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[14] Table 11 and 12 in the Appendix runs the same regressions by using important components of civil liberties instead of the overall measure. They show a somewhat similar picture.

[15] The nine functions include (1) political institutions, (2) safety, law and order, control of violence, (3) functioning of public administrations, (4) free operation of markets, (5) coordination of actors, strategic vision, innovation, (6) security of transactions and contracts, (7) market regulations, social dialogue, (8) openness to the outside world, (9) social cohesion and mobility. These are grouped into four sectors such as A) public institutions and civil society; B) the market for goods and services; C) the capital market; D) the labor market and social relations. For more details and the conceptual underpinnings of the measurement see de Crombugghe et al. (2010).

[16] Verspagen (2012, p. 16) describes these principal components as follows. The variable 'efficient democracy' "stresses the importance of democratic institutions, property rights, openness to the world and control of (state) violence" but also "includes a strategic vision of the government, and efficient public administration". The variable 'positive attitude towards markets' "stresses the ease of starting new businesses, freedom of prices, transparent privatizations, anti-trust policies, absence of public shareholders in business" and "it also captures

As declared, the IPD applies a *de facto* approach to institutions highlighting "the importance of enforcement of, and compliance with, rules" (de Crombugghe et al. 2010, p. 10). This suggests that the IPD variables reflect, on the on hand, the extent to which the formal rules are in line with democracy and a market economy, and on the other, the extent to which these rules are enforced. That is they can be seen as measuring the end result of the way formal institutions interact with informal ones. That means that the IPD variables seem to capture those formal institutions that are supported by the informal ones, too.

In the following I will use these five variable determinants of development in a cross-country setting. Four of these five variables are however highly correlated with each other and seem to reflect one underlying factor, as shown in Table 5. For this reason I will not include these four in the same regression. The variable "market steering" is an exception. These data in Table 5 in themselves give some corroboration to the underlying hypothesis of this paper that property rights institutions are supported by informal ones that drive "property" and "civil" rights at the same time.

Table 5 Pairwise correlations between the main principal components derived from the IPD database

	efficient democracy	positive market attitude	market steering	development of the financial system	development of social relations
efficient democracy	1.00				
positive market attitude	0.926 (0.000)	1.00			
market steering	0.018 (0.842)	0.0034 (0.971)	1.00		
development of the financial system	0.831 (0.000)	0.873 (0.000)	-0.124 (0.174)	1.00	
development of social relations	0.899 (0.000)	0.898 (0.000)	-0.024 (0.796)	0.835 (0.000)	1.00

P-values in parentheses, number of observation is 122 in each case.

In the regressions of Table 6 I include the highly correlated variables separately and together with market steering, since the first four variables seem to be driven by the same anti-rent-seeking or pro-market attitude while the second reflects a regulationist one. The OLS

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efficient public organizations, and the intention to serve public interests by policies aimed at firms". The variable 'market steering' "captures the intention to manipulate and steer markets, for example by special economic zones, price controls, public shareholding, and some restrictions on free trade". 'Development of the financial system' includes information regarding "the free operation and international openness of the financial system, but also the competence of bankers, and the extent of regulation". 'Development of social relations' "measures the general level of development of social relations between employers, workers and the government. It does not stress very much the free operation of labour markets, but instead focuses on training and education opportunities for workers, workers' rights, freedom of association, and a health care system".

regression of Table 6 tests the idea that the expropriability of wealth is enhanced by a pro market attitude in addition to the formal constraints on executives.

Table 6 Expropriability and institutions

	Dependent variable: share of intangible wealth in 2005				
constant	0.337 (2.18)**	0.751 (2.47)**	1.008 (3.37)***	0.926 (3.48)***	0.449 (1.35)
log of total wealth per capita in 2005	0.021 (1.50)	-0.017 (-0.61)	-0.041 (-1.51)	-0.033 (-1.41)	0.011 (0.35)
executive constraints	0.168 (4.81)***	0.143 (3.72)***	0.137 (3.75)***	0.131 (3.37)***	0.159 (3.74)***
efficient democracy		0.088 (1.89)*			
positive market attitude			0.132 (2.80)***		
market steering		-0.009 (-0.37)	-0.007 (-0.26)	0.012 (0.41)	-0.005 (-0.17)
development of the financial system				0.131 (3.13)***	
development of social relations					0.027 (0.50)
R^2	0.415	0.436	0.461	0.472	0.418
adj. R^2	0.404	0.413	0.439	0.451	0.394
number of obs.	104	104	104	104	104

T-statistics are in parentheses, standard errors are robust. Letters in the upper index refer to significance: *** : significance at 1 %, ** : significance at 5 %. T-values without an index mean that the coefficient is not significant even at the 10 % level.

As revealed in column 2-5 it is the variable positive market attitude and development of the financial system that show the strongest correlation with the share of intangible wealth while the variable efficient "democracy" has a much smaller effect. The variable "market steering" does not have a significant effect, however, and neither does the variable development of social relations. I see these results as being in line with the predictions of the model: the variables that have the strongest effect on the share of intangible wealth are those that express a positive attitude towards markets while those that do not, such as market steering and social relations, do not affect expropriability in the presence of executive constraints as an independent variable.

When it comes to prediction (1) I will use three more or less well accepted measures of culture to see whether differences in culture have any explanatory power when cross-country differences of civil liberties are to be explained once income and executive constraints are controlled for – the direct and most obvious prediction of the theory laid down in the paper. In addition, what we can expect based on what has been written here is that the correlation between income and civil liberties will be smaller when culture is also seen as an explanatory

factor. That is because that part of income which is not "explained" by a "better" culture will, according to the theory, have a smaller correlation with that part which is.[17]

According to Gorodnichenko and Roland (2011) there are three main quantitative approaches to culture known in the economics literature: the cultural dimensions of Hofstede et al. (2010), the cultural dimensions of Schwartz (2004), and the World Values Survey (Inglehart et al. 2000). In Tables 7-10 I use the former two (as in Hofstede et al. 2010, Licht et al. 2007) and another index based on the WVS data (Bjørnskov and Paldam 2012). In the regressions I will use the civil liberties score averaged over the years between 1991 and 2010 as the dependent variable while the income as an independent variable is averaged over the years between 1972 and 1990. These two intervals are roughly the two halves of that time period over which civil liberties scores (and income data in Heston, Summers and Aten (2012)) are available.

Table 7 Cross-country regressions with Schwartz's cultural dimensions

	Dependent variable: average of civil liberties, 1991-2010			
constant	9.369 $(11.46)^{***}$	10.870 $(9.48)^{***}$	0.913 (0.19)	-0.608 (-0.17)
log of GDP per capita 1972-1990	-0.714 $(-7.03)^{***}$	-0.941 (-7.72)	-0.391 (-1.60)	-0.147 (-1.01)
embeddedness			0.564 (0.98)	0.386 (1.07)
harmony			0.017 (0.05)	0.579 (1.68)
hierarchy			1.226 $(2.64)^{***}$	1.297 $(3.50)^{***}$
executive constraints				-0.416 $(-2.44)^{**}$
R^2	0.267	0.546	0.662	0.775
adj. R^2	0.263	0.536	0.632	0.749
number of obs.	171	49	49	49

T-statistics are in parentheses, standard errors are robust. Letters in the upper index refer to significance: *** : significance at 1 %, ** : significance at 5 %. T-values without an index mean that the coefficient is not significant even at the 10 % level.

Table 7 includes the regression results when the three dimensions of the Schwartz data (from Licht et al. 2007) [18] are used as proxies for culture. As is clear (from column 3 and 4 of

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[17] Note that $\frac{dI}{ds^*} = I_{s^*} + I_\theta \frac{d\theta}{ds^*}$ because of (20) where $I_\theta \frac{d\theta}{ds^*} > 0$ because of (23) and (26).

[18] These data are based on a unique social psychological approach, and describe people's attitudes on three dimensions. The first is (Licht et al. 2007:662) *embeddedness-autonomy*, where embeddedness describes the view that sees "the person as embedded in the group and committed to maintaining the status quo, propriety, and restraint of actions or inclinations that might disrupt group solidarity or the traditional order". The second is the *harmony-mastery* dimension which refers to the extent to which people think they should get "ahead through active self assertion". The third, the *hierarchy-egalitarianism* dimension is about the cultural emphasis on obeying role obligations within a legitimately unequal distribution of power, roles, and resources".

the results) the coefficient of per capita GDP is reduced after the inclusion of the cultural independent variables and of the variable on executive constraints; it even becomes insignificant at the ten-percent level. The fact that the only significant cultural dimension is that of hierarchy shows that cultural variables have a direct effect on civil liberties and the directions of the effect seem to be in line with the predictions indicating that a less hierarchy-oriented society provides a better soil for civil liberties to grow roots: when people consider each other as (moral) equals, trust will be higher and transactions are less costly to enforce.

Table 8 Cross-country regressions with Hofstede's cultural dimensions

	Dependent variable: average of civil liberties, 1991-2010			
constant	9.369 $(11.46)^{***}$	12.547 $(9.92)^{***}$	9.043 $(4.96)^{***}$	10.203 $(8.25)^{***}$
log of GDP per capita 1972-1990	-0.714 $(-7.03)^{***}$	-1.107 $(-8.20)^{***}$	-0.653 $(-3.44)^{***}$	-0.547 $(-4.13)^{***}$
power distance			0.013 (1.57)	0.006 (0.89)
individualism			-0.017 $(-2.79)^{***}$	-0.010 $(-2.68)^{***}$
masculinity			0.005 (1.00)	0.007 $(2.17)^{**}$
uncertainty avoidance			-0.013 $(-2.39)^{**}$	-0.007 $(-1.99)^{**}$
executive constraints				-0.411 $(-2.99)^{***}$
R^2	0.267	0.528	0.627	0.772
adj. R^2	0.263	0.520	0.593	0.747
number of obs.	171	61	61	61

T-statistics are in parentheses, standard errors are robust. Letters in the upper index refer to significance: *** : significance at 1 %, ** : significance at 5 %. T-values without an index mean that the coefficient is not significant even at the 10 % level.

Table 8 shows the results when the Hofstede dimensions[19] are used as proxies for culture. Column 1 (of the results) reflects the fact that there is a strong association between income and the civil liberties score in the full sample. Column 2 shows the same on the restricted sample – restricted by the availability of the cultural data and the data on executive constraints. Three important facts are revealed in columns 3 and 4 of Table 8. First, when the cultural dimensions are included the coefficient of income is reduced (when column 2 is compared with column 3) and it is further reduced when the variable constraints on executives

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[19] The four dimensions include the following. *Power distance* is the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally. *Uncertainty avoidance* indicates to what extent a culture programs its members to feel either uncomfortable or comfortable in unstructured situations. *Individualism* is the extent to which individuals in the society are expected to look after themselves and their immediate families. *Masculinity* refers to the distribution of emotional roles between the genders. Hofstede et al. (2010) provides data for two further dimensions. But since these are based on the WVS I will not include them in the regressions (as the index I use in Tables 10 and 11 are based on the WVS, too).

is included, too. Second, the cultural variables have explanatory powers even through a direct channel: two (column 3) and three (column 4) of the four dimensions are significant at the five-percent level even if the other two variables are controlled for. Third, the directions of the effect on culture are in line with the claim that market-friendly values are good for civil liberties, too. Individual responsibility (as expressed by the variable individualism) is clearly important to ensure market transactions have a relatively low transaction cost. The role of uncertainty avoidance can only be interpreted through the lenses of the theory with some difficulty since the results suggest that more uncertainty avoidance is associated with a higher level of civil liberties. Masculinity is, again, somewhat easier: more masculine nations have fewer civil liberties because, in this paper's interpretation, a less masculine "softer" approach to human relations makes a deal easier to make and enforce.

Table 9 Pooled OLS regressions with Bjørnskov and Paldam's (2012) capitalism-socialism score

	Dependent variable: average of civil liberties averaged over t and t+4 (t=1990, 1995, 2000, 2005)			
constant	8.892 (15.60)***	11.757 (13.22)***	10.916 (14.15)***	9.832 (14.85)***
log of GDP per capita 1972-1990	-0.628 (-9.06)***	-0.990 (-10.68)***	-0.883 (-10.29)***	-0.414 (-4.57)***
Capitalism versus Socialism score			-0.014 (-2.23)**	-0.010 (-2.62)**
executive constraints				-0.554 (-7.85)***
R^2	0.236	0.494	0.522	0.764
adj. R^2	0.235	0.491	0.517	0.760
number of obs.	901	182	182	182

T-statistics are in parentheses, standard errors are clustered by country. Letters in the upper index refer to significance: *** : significance at 1 %, ** : significance at 5%. T-values without an index mean that the coefficient is not significant even at the 10 % level.

In Tables 9 and 10 I use the so-called capitalism-socialism score of Bjørnskov and Paldam (2012). The score is meant to express the preference for private against public ownership among the population in general. The index – in theory – runs between -100 and 100 with a higher number being in favor of private ownership to a larger extent. The CS-score is available for 200 observations in the years 1990, 1995, 2000 and 2005. That means that the index makes it possible to use it even in a panel setting – hence the two tables for this score: in Table 9 pooled OLS is used while a fixed-effects panel is used in Table 10. This requires a new setting for the income data, too, which in this case reflect five-year averages. Two important conclusions are common to Tables 9and 10. First, the CS-score is significant in

addition to the other two variables (columns 3 and 4 in Tables 9 and 10). Second, the coefficient on income is reduced when the other two are included (the same columns).

Table 10 Fixed-effects panel regressions with Bjørnskov and Paldam's (2012) capitalism-socialism score

	Dependent variable: average of civil liberties averaged over t and t+4 (t=1990, 1995, 2000, 2005)			
constant				
log of GDP per capita 1972-1990	-0.613 (-3.54)***	-1.576 (-7.14)***	-1.338 (-7.74)***	-1.204 (-6.97)***
Capitalism versus Socialism score			0.015 (4.54)***	0.012 (3.58)***
executive constraints				-0.236 (-2.51)***
within R^2	0.028	0.308	0.407	0.468
between R^2	0.277	0.429	0.363	0.530
number of countries	187	85	85	85
number of obs.	901	182	182	182

T-statistics are in parentheses, standard errors are clustered by country. Letters in the upper index refer to significance: *** : significance at 1 %. T-values without an index mean that the coefficient is not significant even at the 10 % level.

What is different between Tables 9 and 10 is the direction of the effect. In the pooled setting the direction is "right": a more private property loving culture is associated with a higher protection of civil liberties. In the panel setting, however, the CS-score has an effect with the opposite sign. Two possible explanations for this are the following. First, within-country dynamics may be a more complex phenomenon than a one-way relationship from the preferences over private property to civil liberties. This process may have some cycles and lags in it[20]. A second possibility is that this cultural variable expresses a preference that is less deep than the other two (there are, for example, relatively large changes within a five-year interval). In sum, country averages are in line with what is proposed in this paper, but within country cycles are not.

6. Conclusion

The argument of this paper builds on two traditions in economics. One is the property rights school that looks at civil rights as part of property rights (represented by the works cited in section 3), the other is the assumption of a rent-seeking government (Ekelund and Tollison 2001). Following this latter tradition, I argued that the possibility of forgoing revenue (rent)

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[20] The post-socialist countries seem to serve as good examples. In these countries people had great expectations concerning the market economy at the time of the fall of communism which did not, and could not, be realized, leading to a kind of disappointment a few years later. This process is mirrored in the data. Hungary's score for example is 29.7 for 1990 and 9.4 for 1995; that of the Czech Republic is 40.4 for 1990, 5.1 for 1995, and 17.5 for 2000; the same for Poland is -6.5 for 1990, -11.8 for 1995, -9.3 for 2000, and -27.7 for 2005. That is, in the first half of 1990's we can see a growing level of civil liberties and a worsening reputation of private property in the post socialist countries.

might put a check on the provision and enforcement of civil rights just as Brennan and Kliemt (2008) argue that taxation and regulation are interrelated, and the possibility of forgoing tax revenue will put a check on regulation.

The argument is based on two assumptions. One is that (1) civil liberties are no different from other liberties except in that the income they generate is more difficult for the government to expropriate, and (2) informal attitudes to private property (attitudes toward rent seeking) can be modeled as the cost of enforcing the rules that constrain rent seeking. In this model civil rights are not the means of controlling or motivating politicians by providing better information, better transparency of political decisions, or more "voice" in the political process. The model focuses on the direct roles of civil rights: it is supposed that the rights are important in themselves, but their capacity of generating expropriable income is different.

The central feature of the argument is the claim that the protection of civil liberties generates an income that can be expropriated by the government to a lesser extent than the income that economic liberty generates. Indeed, this difference in the ability to generate expropriable income might be the reason why the difference between different kinds of property rights is made in the first place. That is, the difference made between "civil liberties" and "economic freedom" fits the point of view of the rent-seeking (or rent-seekers') government.

The model suggests a mechanism through which culture supports the provision and enforcement of civil liberties. The argument is that what matters concerning informal factors is the extent to which they are against rent seeking behavior. More pro-market attitudes will provide more incentives for the rent seeking government to provide and enforce a larger scope of rights. The main alternative of this conclusion seems to be the claim that there is a "liberal" ideology that promotes market institutions and democratic institutions at the same time. Even if there used to be such an attitude, as demonstrated by Congleton (2011) and McCloskey (2010), it may not be very common any longer. As was indicated in section 3, economists have always been arguing with intellectuals who were for political freedom but against market freedom. However, these two hypotheses may not be opposing views but alternatives which reflect the different roles of culture in civil liberties.

Many questions are left unanswered in the paper. One of the most important of them is the question of how different (civil) rights differ in terms of their ability to provide an income that is more or less expropriable and what are the exact mechanisms that make this income more or less expropriable.

Appendix

Proposition The second order condition of problem (5) holds in equilibrium

Proof:

The second order condition of problem (5) is

$$p_{gg}(r^*,g^*)H(g^*) + 2p_g(r^*,g^*)H_g(g^*) + p(r^*,g^*)H_{gg}(g^*) < 0,$$

which in equilibrium ($g^* = 1$, $r^* = \theta s$) becomes

$$\frac{-2r^*}{(r^*+g^*)^3}\frac{e}{1+s\theta g^*} + \frac{2r^*}{(r^*+g^*)^2}\frac{-es\theta}{(1+s\theta g^*)^2} + \frac{2g^*}{r^*+g^*}\frac{-e(s\theta)^2}{(1+s\theta g^*)^3} = -\frac{2es\theta}{(1+s\theta)^4} < 0$$

Proposition $B_s(s) < 0$ and $B_{ss}(s) > 0$ where $B(s)$ is defined as in equation (13).

Proof:

$$B_s(s) = \frac{a_s(s)A(s) - a_s(s)A_s(s)}{[A(s)]^2} = \frac{a_s(s)}{A(s)} - [B(s)]^2 < 0.$$

$$B_{ss}(s) = \frac{a_{ss}(s)}{A(s)} - \frac{a_s(s)}{A(s)}B(s) - 2B(s)B_s(s) = \frac{a_{ss}(s)}{A(s)} - B(s)\left[\frac{a_s(s)}{A(s)} + 2B_s(s)\right] > 0. \blacksquare$$

Proposition There exists an 0<s*<1 that satisfies the conditions

    (1) $B(s^*)=C(s^*)$, and

    (2) $B_s(s^*)-C_s(s^*)<0$,

    where $B(s^*)=C(s^*)$ are as defined in equation (13) in the text.

Proof that condition (1) holds:

Define D(s)=B(s)-C(s). According to the intermediate value theorem there must be an

$s \in [0,1]$ such that D(s)=0, since $D(0)=1-D(0)=B(0)-C(0)=1-2\theta > 0$ if $\theta < 1/2$ and

$$D(1) = B(1) - C(1) = 0 - \frac{\theta}{1+\theta} < 0 \blacksquare$$

Proof that condition (2) holds:

Because $B_s(0) - C_s(0) = -\infty + 2\theta^2 < 0$,

$$B_s(1) - C_s(1) = 0 + \frac{2\theta^2}{(1+\theta)^2} > 0, \text{ and}$$

it is supposed that $B_{ss}(s) > C_{ss}(s) > 0$

there is an s' such that $B_s(s)-C_s(s) <0$ if s<s' and $B_s(s) - C_s(s) \geq 0$ if $s \geq s'$.

Show that s' cannot be smaller than s^*.

Assume that $s^* \geq s'$. This implies that $B_s(s^*) - C_s(s^*) \geq 0$ and $B_s(s) - C_s(s) \geq 0$ if $s \geq s^*$. As a

result $\int_{s^*}^{1} B_s(s)ds \geq \int_{s^*}^{1} C_s(s)ds$ or $B(1) - B(s^*) \geq C(1) - C(s^*)$ and hence $B(1) \geq C(1)$. This is

impossible by definition.

Since we have shown that it is impossible to have $s^* \geq s'$ what we must have is an $s' \geq s^*$

meaning that $B_s(s^*) - C_s(s^*) < 0$. ∎

Table 11 Wealth, economic freedom, and personal autonomy and individual rights

	Dependent variable:		
	log of total wealth per capita	log of tangible wealth per capita	The share of intangible wealth
constant	10.536 (95.75)***	9.552 (83.53)***	0.730 (2.79)***
economic freedom	0.969 (4.11)***	0.854 (3.26)***	0.112 (1.34)
personal autonomy and individual rights	0.739 (3.89)***	0.381 (1.67)***	0.152 (3.84)***
log of total wealth per capita			-0.019 (-0.76)
R^2	0.691	0.483	0.307
adj. R^2	0.685	0.474	0.288
number of countries	113	113	113

T-statistics are in parentheses, standard errors are robust. Letters in the upper index refer to significance: *** : significance at 1 %.T-values without an index mean that the coefficient is not significant even at the 10 % level.

Table 12 Wealth, economic freedom, and freedom of expression and belief

	Dependent variable:		
	log of total wealth per capita	log of tangible wealth per capita	The share of intangible wealth
constant	10.446 (87.00)***	9.510 (78.61)***	0.363 (1.53)
economic freedom	1.378 (7.66)***	1.103 (5.95)***	0.140 (1.73)*
freedom of expression and belief	0.331 (2.47)**	0.102 (0.63)***	0.076 (1.91)*
log of total wealth per capita			0.014 (0.59)
R^2	0.625	0.455	0.264
adj. R^2	0.618	0.446	0.244
number of countries	113	113	113

T-statistics are in parentheses, standard errors are robust. Letters in the upper index refer to significance: *** : significance at 1 %, ** : significance at 5 %, * : significance at 1 %. T-values without an index mean that the coefficient is not significant even at the 10 % level.

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