

On the Relevance of Freedom and Entitlement in Development

New Empirical Evidence (1975–2007)

Jean-Pierre Chauffour

The World Bank
Poverty Reduction and Economic Management Network
International Trade Department
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Abstract

Reviewing the economic performance—good and bad—of more than 100 countries over the past 30 years, this paper finds new empirical evidence supporting the idea that economic freedom and civil and political liberties are the root causes of why some countries achieve and sustain better economic outcomes. For instance, a one unit change in the initial level of economic freedom between two countries (on a scale of 1 to 10) is associated with an almost 1 percentage point differential in their average long-run economic growth rates. In the case of civil and political liberties, the long-term effect is also positive and significant with a differential of 0.3 percentage point. In addition to the initial conditions, the expansion of

freedom conditions over time (economic, civil, and political) also positively influences long-run economic growth. In contrast, no evidence was found that the initial level of entitlement rights or their change over time had any significant effects on long-term per capita income, except for a negative effect in some specifications of the model. These results tend to support earlier findings that beyond core functions of government responsibility—including the protection of liberty itself—the expansion of the state to provide for various entitlements, including so-called economic, social, and cultural rights, may not make people richer in the long run and may even make them poorer.

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On the Relevance of Freedom and Entitlement in Development: New Empirical Evidence (1975-2007)

*Jean-Pierre Chauffour*¹
World Bank

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¹ Lead Economist, International Trade Department, World Bank. The paper draws on my book, [*The Power of Freedom: Uniting Human Rights and Development*](#) (Cato Institute, 2009) and was prepared for the International Symposium on the MDGs and Human Rights held at Harvard University on March 22-23, 2010. I am grateful to Marlya Maliszewska for excellent research assistance and to Milan Brahmhatt, Bernard Hoekman, Susanna Lundstrom and Maurice Schiff for useful comments. The paper benefited from comments from Emmanuel Teitelbaum and other participants at the Conference on Human Rights, Development, and Economic Growth – Metrics, New Ways of Thinking, and New Strategies organized by George Washington University on April 7-8, 2011. The views expressed in this paper are solely my own and should not be attributed to the World Bank, its Executive Directors or the countries they represent. I can be contacted at jchauffour@worldbank.org.

1. Introduction

In reviewing the distinctive characteristics of the 13 economies that have been able to grow at more than 7 percent for periods of more than 25 years since 1950, the Growth Commission (2008) found that sustainable high economic growth requires, among other things, leadership and governance; engagement with the global economy; high rates of investment and savings; mobile resources, especially labor; and inclusiveness to share the benefits of globalization, provide access to the underserved, and deal with issues of gender inclusiveness.² Yet, observing that successful economies display a number of commonalities and desirable features is of little help to understand why and how those countries have been able to nurture and sustain these very features over time. Why are certain countries better governed than others; save and invest more; have more flexible markets; or achieve greater inclusiveness? Are there some admittedly more fundamental common characteristics that could explain why on average certain countries create better institutions, promote better policies, and achieve better outcomes?

Although a general theory of economic growth continues to elude the economist profession (Easterly 2001),³ the idea that differences in societies' institutional arrangements are the fundamental cause of differences in economic performance has gained enormous momentum in recent decades. Since North and Thomas (1973), it has become clear that, while factor accumulation, innovation, and technological progress are the proximate factors that explain the mechanics of economic growth, they are not the causes of growth, they are growth. To locate the more fundamental determinants of growth, one needs to push the question back one step and ask why factor accumulation and innovation advance at different rates in different countries or groups of countries; why do countries differ in terms of level of schooling, quality of infrastructure, health of the population and other proximate factors of economic growth? The growing consensus is that the answer has to do with differences in institutions (e.g., the rule of law, the property regime, and the participatory process) and differences in geography and other exogenous factors.⁴

Given the centrality of institutions in the cross-country growth literature, some have tried to push the issue back even further to ask why institutions differ across countries in the first place. Could it be that

² The Growth Commission was the result of two years work on the requirements for sustained and inclusive growth in developing countries led by 20 experienced policymakers and two Nobel prize-winning economists. Further information are available at <http://www.growthcommission.org/index.php>

³ Broadly speaking, three theories of economic growth are usually discussed in the literature: the neoclassical growth theory, which emphasizes the accumulation of factors (labor and capital) and technological progress (exogenous or endogenous) as the primary determinants of growth (e.g., Solow 1956 and Mawkin, Romer and Weil 1992); the geographic growth theory, which emphasizes climatic conditions, access to major markets and other locational factors as key to explaining long-term economic development (e.g., Diamond 1997 and Sachs 2001); and the institutional growth theory, which stresses the importance of a society's institutional framework, in particular the existence of a market-friendly environment for entrepreneurial activities, in the long-term performance of economies (e.g., North 1990 and Acemoglu and al. 2004).

⁴ Acemoglu, Johnson and Robinson 2005; Alesina, Easterly, Devleeschauwer, Kurlat and Wacziarg 2003; Gallup, Sachs and Mellinger 1998; Frankel and Romer 1999; Glaeser, La Porta, Lópezde-Silanes and Shleifer 2004; Knack and Keefer 1997; Rodrik, Subramanian and Trebbi 2004.

certain norms, values, and organizational principles in societies are conducive to better institutions? For instance, Acemoglu, Daron and Robinson (2004) suggest that political institutions and the distribution of resources are the fundamental determinants of institutions and therefore of growth. Chauffour (2009) hypothesizes that the extent to which political institutions and human interactions in society are formed around the concept of freedom constitutes one key determinant of growth, perhaps the ultimate cause of why economic agents actually create and accumulate.

Looking at the economic performance—good and bad—of more than 100 countries over the last 30 years, this paper proposes to (1) re-examine the long-term relationship between freedom and economic growth; and (2) disentangle the respective role of economic freedom, civil and political liberties, and the pursuit of economic, social and cultural rights on economic growth. In line with the analytical framework of the rights-based approach to development, the paper conjectures that development is fundamentally rooted in the protection of some fundamental rights. It however further conjectures that all so-called “rights” are not necessarily equal and that the individual rights at the root of sound institutions and sustainable economic growth may not necessarily coincide with the rights embedded in the instruments of international human rights law. In particular, the pursuit of freedom rights (i.e., economic freedom, and civil and political liberties) and entitlement “rights” (i.e., right to food, housing, education, health, etc) may lead to different institutions and development outcomes over the long run.

The paper is organized as follows. Section 2 presents the concepts of economic freedom, civil and political rights, and entitlements rights and reviews the literature on the relationship between these concepts and economic growth. Section 3 presents the data, some stylized facts, and a model to test the long-term relationship between per capita income and economic freedom, civil and political rights, and entitlements rights. Section 4 presents the results and Section 5 concludes.

2. Concepts

The starting proposition is that, at the simplest level, economic development can be seen as the product of exogenous and endogenous factors. Exogenous factors are those factors that are not under the control of individuals, such as geography, natural resource endowment, ethno linguistic homogeneity, and various other types of good and bad luck. Endogenous factors would correspond to factors that are influenced by individuals—alone or in associations. Those endogenous factors can in turn be divided between factors that are mainly the expression of free individual choices leading to market solutions and factors that are the results of more coerced individual decisions leading to political solutions.

Freedom conditions would include all forms of economic freedom, civil rights, and political liberties. There are essentially “negative” rights in nature and are covered by the Universal Declaration of Human Rights and the UN International Covenant on Civil and Political Rights. In contrast, coercive conditions would include the regulations, taxations, and other forms of government interventions to provide for public goods and various entitlement rights. Beyond a certain thresholds of government intervention, these entitlement rights are essentially “positive” rights in the spirit of the economic, social, and cultural rights as provided by the UN International Covenant on Economic, Social, and Cultural Rights (Box 1).

Box 1. Negative vs. Positive Rights

The distinction between positive and negative rights is controversial and at the core of differing interpretations about human rights. Negative rights conceive of human rights in terms of liberties and “freedoms from”. They derive primarily from 17th and 18th century reformist theories (i.e., those associated with the English, American, and French revolutions). Imbued with the political philosophy of liberal individualism and the related economic and social doctrine of laissez-faire, they are fundamentally civil and political in nature and opposed to government intervention in the quest for human dignity. In contrast, positive rights see human rights more in terms of claims, entitlements, and “rights to”. They originated primarily in the 19th century socialist tradition and were taken up by the revolutionary struggles and welfare movements of the early 20th century. As a counterpoint to “negative” civil and political rights, they tend to favor state intervention for the purposes of providing economic, social, and cultural rights and ensuring the equitable distribution of the values or capabilities involved.

Acknowledging the intellectual challenge posed by the promotion of both negative and positive rights in international human rights law, a number of scholars have tried to reconcile views by emphasizing the continuum between both sets of rights. First, positive rights have been defended on the grounds that the protection of negative rights also entails positive actions by the state that could be as costly as the realization of a number of positive rights (Alston 2004). Second, positive rights have been promoted on the basis that all human rights involve a mix of negative and positive duties and entitlements. However, this line of argument tends to brush aside the fact that the fundamental distinction between positive and negative rights is about the essence of those rights and not, as has often been claimed, about the economic costs of implementing them. Hayek (1960) has elaborated on the good reasons for guaranteeing basic human rights, even if they are costly. Indeed, promoting and protecting negative rights that underpin economic freedom and civil and political liberties requires a government that is streamlined, yet strong and effective.

Of course, the problem of when exactly government intervention starts interfering with individual choices and the market is open to reasoned debate. In a democratic context, it is often considered that in the final analysis the scope of the state is a matter for the democratic process to decide. Yet, while societies may reveal different preferences as to the trade-off between state intervention and economic freedom, the majority rule may not necessarily lead to the optimal state either from a normative or utilitarian perspective, especially when it violates the freedom of minorities (e.g., discrimination, expropriation, confiscatory taxation). Friedman (1962) notoriously pointed out that market solutions (i.e., voluntary cooperation among responsible individuals) permit “unanimity without conformity” (i.e., a system of effective proportional representation), whereas political solutions (even in proportional representation) typically tended to produce the opposite, i.e. “conformity without unanimity.” From this he concluded that the wider the range of activities covered by the market, the fewer the issues on which explicitly political decisions were needed and hence, requiring agreement. In turn, the fewer the issues on which agreement was necessary, the greater the likelihood of reaching agreement while maintaining a free society. Depending on the balance between market solutions and political solutions, individual opportunities to learn, own, work, save, invest, trade, protect, and so forth may vary greatly across countries and over time.

In this understanding of the world, development could therefore be subdued to three fundamental set of circumstances: (1) a set of exogenous conditions; (2) the degree of individual freedom and market solutions; and (3) the degree of state intervention and political solutions, including the intervention needed to protect individual freedom itself. Certain countries may be able to sustain better institutions and outcomes over time because of a better mixed of these circumstances.

2.1 Development as economic freedom

Economic freedom is in itself part and parcel of the basic liberties that people have reason to value. As Sen (1999) puts it, “the 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)”. Economic freedom in all its dimensions, therefore, has an intrinsic value irrespective of its impact on economic growth and development and this value is not limited to egotism and selfishness. Indeed, freedom has been defined as “a state in which each can use his knowledge for his purposes” (Hayek 1973).

In addition to the normative motive, it has been recognized even since Adam Smith (1776) that the pursuit of economic freedom could serve a broader utilitarian motive. Economic freedom and free markets give spontaneous satisfaction to people’s demands and constitute the main engine for technological progress and economic growth.⁵ In turn, sustained, vigorous economic growth creates the conditions for achieving various human development goals, including economic, social, and cultural.⁶ Friedman (2005) argues that economic growth gives benefits far beyond the material: it brings “greater opportunity, tolerance of diversity, social mobility, commitment to fairness and dedication to democracy”. And conversely, when there is economic stagnation or decline, the citizen’s “moral character” tends to decline accordingly, there being less tolerance, less openness, and less generosity to the poor and the disadvantaged. Economic freedom is the recognition that being forced not to behave according to one’s preferences is utility-reducing and costly.

The main dimensions of economic freedom generally include the freedom to hold and legally acquire property; the freedom to engage in voluntary transactions, inside or outside a nation’s borders; the freedom from government control of the terms on which individuals transact; the freedom from government expropriation of property (e.g., by confiscatory taxation or unanticipated inflation); and the freedom to move freely within and across international boundaries. There are several theoretical

⁵ As noted by Economic Freedom of the World (2004), “we do not know where the next ingenious idea will come from. More than any other form of economic organization, a free market makes it possible for a wide range of people to try out their innovative ideas and see if they can pass the market test. If they do, they will improve living standards. On the other hand, if they fail, they will soon be brought to a halt. This process of experimentation and discovery is a powerful force for economic progress.”

⁶ That economic growth is a necessary condition for economic development is by now an almost universally accepted principle. As Krueger (2005) puts it, “the evidence is clear: the only way to bring about a lasting reduction in poverty is through rapid and sustained economic growth. That sounds straightforward enough. Unfortunately, we cannot legislate for rapid growth any more than we can for poverty reduction. What matters are the policies that will deliver more rapid growth”.

reasons why institutions and policies guaranteeing economic freedom conceivably have the capacity to provide growth-enhancing incentives: they promote a high return on productive efforts through low taxation, an independent legal system, and the protection of private property; they enable talent to be allocated where it generates the highest value; they foster a dynamic, experimentally organized economy in which not only a large amount of business trial and error can take place, but also competition among different players, because regulations and government enterprises are few; they facilitate predictable and rational decision-making by means of a low and stable inflation rate; and they promote the flow of goods, capital, labor, and services to where preference satisfaction and returns are the highest (Berggren 2003).

Although the composite, multi-dimensional concept of economic freedom does not lend itself to easy measurement and quantitative analysis, differences in how countries deal with economic freedom appear to be a fundamental cause of cross-country differences in economic prosperity. In their survey of the issue, Hanke and Walters (1997) found that, although varying in emphasis and approach, the three most common indices of economic freedom⁷ have significant power to explain variation in per capita national income. Not surprisingly, all three indicators are also highly correlated and produce country rankings that have much in common. According to their estimates, the various measures of economic freedom explain from 54 percent to 74 percent of the cross-country variation in income, with each coefficient carrying the correct sign and being highly significant.

Using the Economic Freedom of the World (EFW) index reported by the Fraser Institute during 1980-2000,⁸ Gwartney and Lawson (2004) found that, controlling for initial conditions,⁹ the average annual growth rate of real GDP per capita of countries with an EFW rating in the first tier was 3.4 percent, as compared to 0.4 percent for countries whose rating was in the third tier. When developed countries are omitted from the analysis, the differential growth rates between the persistently free and the persistently unfree developing economies are even greater. The persistently free least-developed countries (LDCs) grew at an annual rate of 5.2 percent during the two decades, compared to 0.6 percent for the least free group. The ten freest economies out of those with low incomes in 1980 grew more than four times the average of the other countries. Countries with more economic freedom also tend to achieve far better social outcomes. They have substantially higher per capita incomes, including for the poorest 10 percent of the population,¹⁰ have longer life expectancy, higher adult literacy, lower infant mortality, lower incidence of child labor, better access to improved (treated) water sources, and greater overall “human development” achievement as measured by the UN. Economic freedom is also generally

⁷ The Fraser Institute’s Economic Freedom of the World Index, Freedom House’s Economic Freedom Indicators, and the Heritage Foundation’s Indices of Economic Freedom.

⁸ The Economic Freedom of the World (EFW) index is perhaps the most ambitious attempt to quantify economic freedom and its impact on investment and economic growth. The index, currently available for 141 countries, measures the consistency of a nation’s policies and institutions with economic freedom, in particular the extent to which various countries rely on open markets to allocate goods and resources.

⁹ After adjustment for differences in initial income level, tropical location, share of population near an ocean, and human capital.

¹⁰ Interestingly, the share of the income earned by the poorest 10 percent of the population was found to be unrelated to the degree of economic freedom in a nation.

associated with smaller shadow economies and lower perceptions of corruption (as measured by Transparency International), as fewer regulations, taxes, and tariffs reduce the opportunities for corruption available to public officials.

Notwithstanding the strong theoretical underpinnings and empirical evidence of the virtue of economic freedom,¹¹ a number of authors have questioned the causal relationship between economic freedom and economic growth, suggesting that it may have more to do with the tendency of rapidly growing economies to liberalize economically and politically than economic freedom per se causing growth. De Haan and Siermann (1998) find that the positive effect of economic freedom on economic growth is not robust, but depends on the indicator of economic freedom used. De Haan and Sturm (2000) conclude that while greater economic freedom will lead a country more rapidly to a steady state of economic growth, the level of this steady state of growth itself is unaffected by the degree of economic freedom. In a further analysis, de Haan, Leerouwer, and Sturm (2002) maintain that the various, largely ad hoc indices of economic freedom are not robustly related to economic growth.

Yet, overall economic scholars tend to support the notion of an overall positive causal relationship between economic freedom and economic growth.¹² In a survey of 33 empirical studies on the relationship between economic freedom and economic growth, de Haan, Lundström and Sturm (2006) conclude that, notwithstanding the various shortcomings of empirical studies using the EFW index, market-oriented institutions and policies are strongly related to economic growth. They found strong indications that liberalization, i.e. an increase in the EFW index, stimulates economic growth. Barro (1997) provides empirical evidence supporting the idea that free markets and maintenance of property rights foster economic growth. Gwartney and Lawson (2004) found that increases in economic freedom, as measured by the EFW index, led to more growth in the future (changes in economic freedom during the 1980s were associated with higher rates of economic growth during the 1990s), but higher growth rates did not improve future EFW ratings. However, they note that the EFW does not suggest that countries moving from the least free EFW quintile to the most free will rapidly achieve a GDP per capita similar to those countries in the most free grouping. Instead, the relationship between current economic freedom ratings and GDP per capita indicates that institutional change typically occurs *gradually*. In other words, economic freedom would be key to economic development but is no quick fix. In a more elaborated empirical testing of the causal relationships among economic freedom, democracy, and growth,¹³ both Farr, Lord, and Wolfenbarger (1998) and Vega-Gordillo and Alvarez (2003) found that economic freedom fosters economic growth but that there is no statistically significant causality running from growth to economic freedom. This conclusion is corroborated by a number of econometric studies

¹¹ An extreme example is the comparative performance of market-oriented West Germany and highly-regulated East Germany, or the current relative performance of South Korea and North Korea. Less dramatic differences on the impact of economic freedom can be found on all continents among both developed and developing countries.

¹² This is not to say that all components of economic freedom are necessarily associated with economic growth. While some components of economic freedom are usually found to cause economic growth (e.g., the use of markets and property rights), other components may be caused by growth, and still others jointly determined with growth. Berggren (2003) provides a survey of the empirical findings in this area.

¹³ To determine what causal relationships exist among economic freedom, political freedom, and economic growth, the authors use a dynamic model and define causality along the lines established by Granger (1969).

surveyed by Berggren (2003). In particular, while the results show that increased economic freedom exerts a positive influence on the development of economic wealth, there is no evidence of any study showing that economic freedom hampers growth or is associated with lower GDP per capita.

2.2 Development as civil and political liberties

Economic freedom is only one dimension of individual freedom. Other dimensions, such as those related to civil rights and political liberties, are equally fundamental. All three dimensions of freedom essentially aim at freeing human beings from various types of state and non-state violence and unfreedoms.¹⁴ A number of theoretical arguments have been advanced to make the case that civil and political freedom and economic freedom are mutually reinforcing. Civil and political freedom is expected to facilitate the functioning of the market economy by developing a more predictable and stable institutional framework for engaging in productive transactions, including better protection of property rights (Friedman 1962). This has a positive influence on economic growth through higher savings and investment rates, and lower rents associated with corruption, government controls, and the non-respect of the rule of law. Also, Friedman (1962) points out that political rights and civil liberties are conducive to faster economic growth because of the need for political legitimacy of the government undertaking painful economic reforms with possible short term costs, the need for independent judicial system to carry out a successful economic liberalization and the fact that respect for property rights is most often achieved in societies with civil liberties and political rights guaranteed. Sen (1999) is of the view that securing economic rights will not achieve the expected economic benefits in case of violation of civil and political rights. When the state does not refrain from physically harming its citizens (from arbitrary imprisonment to politically motivated killings), the resulting climate of fear and anxiety is unlikely to be conducive to investment and growth. Rodrik (2000) conjectures that democratic countries would favor higher-quality growth, that is, a more predictable long-term growth rate, greater short-term stability, better resilience to adverse shocks, and a more equitable distribution of wealth. Civil and political liberties would also usually associated with greater gender equality, higher levels of female education, lower reproduction and infant mortality; all factors contributing to foster economic growth.

However, other scholars (e.g., De Schweinitz 1959, Huntington 1968, Rao 1984, and Vega-Gordillo and Alvarez 2003) have questioned the economic effects of civil and political rights, highlighting in particular the possible growth-hindering aspects of democracy. In particular, majority suffrage tends to redistribute income and therefore reduce efficiency. Representative legislatures allow well-organized interest groups to lobby and legally appropriate resources at the expense of other groups and society as a whole. Democratic governments that try to maximize tenure tend to respond to popular demands for greater immediate consumption and spending at the expense of future growth. This line of argument echoes Hayek's (1960) insights that while basic human rights and property rights have a positive impact on welfare and growth, a high degree of entitlement rights could become economically counterproductive, even when democratically decided.

¹⁴ According to Freedom House definition, freedom is "the opportunity to act spontaneously in a variety of fields outside the control of the government and other centers of potential domination."

Although empirical studies on the relationship between civil and political rights and economic development are far from conclusive, many of them find that freedom in all its economic, civil and political dimensions tends to favor economic growth and stability. Burkhart and Lewis-Black (1994) provide support to Lipset (1959)'s hypothesis that increasing income rises the probability of a country choosing a democratic system. The mechanism of this linkage is through a growing middle class and social mobility created by economic growth, which in turn leads to growing demand for political rights and civil liberties. Calderón (2000) shows that improvements in the institutional framework have a positive influence on economic growth, especially in poor countries. Sah (1991) observes that authoritarian regimes exhibit a larger variance in economic performance than democracies, while Isham and others (1997) find that substantial violations of civil and political rights are related to lower economic growth. More recently, Blume and Voigt (2005), using a comprehensive set of human rights data, show that high levels of economic freedom and civil and political rights are significantly conducive to economic growth and welfare. None of the four groups of rights they use is ever found to have a significant negative impact on their various economic variables: basic human rights and property rights are conducive to investment, while property rights, civil rights and emancipatory rights are found to have a discernible impact on productivity gains. In their survey on economic freedom, Hanke and Walters (1997) conclude that while both economic freedom and civil and political freedom contribute significantly to prosperity, gains in economic freedom have a "prosperity dividend" that is three to six times greater than that which would be obtained from comparable gains in civil and political freedom. In their more recent empirical survey, de Haan, Lundström and Sturm (2006) note that political liberalization is often found to enhance economic liberalization, whereas there is less evidence for causality running in the other direction.

Looking more directly at the effect of democratization, Barro (1997) observes that democracy has a nonlinear effect on growth. Any increase in political rights initially increases growth, but this tends to ease off once a certain level of democracy is attained. His own interpretation of these results is that, in the strictest dictatorships, increased freedom stimulates growth by limiting government abuse. But after achieving some degree of political freedom, further increases in democracy hinder growth by intensifying the redistribution of resources. Tavares and Wacziarg (2001) find that democracy hinders growth because it reduces investment in physical capital and raises the ratio of public consumption to GDP. Aixelá and Fabro (2008) refer to three schools of thought: the "conflict perspective" where the appearance of certain pressure groups in a democracy makes it difficult to carry out reforms; the "comparability perspective" where only a democracy can give credibility to property rights protection, which are key to development and finally "the skeptical perspective" which states that the presence of political freedom alone does not necessarily lead to economic growth. Some empirical studies find that liberalizing the economy is an essential first step before the enhancement in political rights can generate growth (Giavazzi and Tabellini, 2005, Persson and Tabellini, 2006). Democracies created in closed economies are forced to face conflicts of redistribution, while democracies introduced in open economies lead to more efficient economic outcomes.

Not only does the impact of civil rights and political liberties on economic growth seem more equivocal than the impact of economic freedom, but the causal relationship also seems more ambiguous. Vega-

Gordillo and Alvarez (2003) found that economic growth fosters political freedom, thereby confirming Lipset (1959)'s hypothesis on the reverse causality between civil and political freedom and economic development. However, they also found that political freedom, when combined with economic freedom, helps to enhance economic growth, thus highlighting the complex dynamic relationships between the various types of freedoms. Economic freedom enhances political freedom at the same time as more political freedom provides for greater economic freedom and economic growth. The authors conclude that "the interplay between economic freedom, democracy, and economic growth can be said to form various cause and effect chains, which have been studied theoretically and empirically but are not fully understood." This is confirmed by Aixalá and Fabro (2008), who find support for the hypothesis that political rights precede economic growth. When looking at the mechanisms through which economic freedom, civil liberties and political rights are linked to growth, the authors find that all of the above liberties cause (à la Granger) investment in human capital, while only the dimension of economic freedom causes the investment in physical capital.

2.3 Development as entitlement rights

To be sure the protection of the various forms of economic, civil, and political freedoms discussed above requires an efficient state, i.e., a state able to effectively fulfill the core functions of government responsibility, such as the protection of persons, contracts, and properties, the maintenance of the rule of law and justice, and the provision of public goods. Yet, political circumstances (being democratic or undemocratic) often led the state to take on a more ambitious range of activities in order to directly foster growth, promote development, and achieve a number of social objectives, such as reducing inequality or promoting social justice. Typically, those activities would involve political solutions—as opposed to market solutions—that entail an enlargement of the scope of the state and the creation of entitlements, for instance to social security, health, education, food, housing, work, adequate standard of living, and so forth. To deliver those entitlements, the state tends to interfere with the market, for instance to directly produce manufacturing goods (e.g., state-owned enterprises), supply services (e.g., education, health, energy, transport, telecommunications, culture), control prices (e.g., wages, interest rates, rents, commodities) or quantities (e.g., credits, quotas, licensing requirements, and other barriers to entry), and redistribute income (e.g., taxes, subsidies, and transfers).

The relationship between the size of government and economic growth has been extensively studied and tested in the literature, using many different econometric techniques, empirical settings, and samples of countries. Yet, results presented in the literature have been mixed and inconclusive (Slemrod 1995). In his seminal paper, Barro (1991) concludes that government expenditure is positively linked to economic growth when the share of government expenditure (and consequently the tax rate) is low, but then turns negative due to increasing inefficiencies as the share of expenditure increases, indicating a nonlinear relationship between government expenditure and growth. Such findings could be explained by the key initial role of the state in providing some fundamental public goods to protect liberty itself—economic freedom, and civil and political rights. However, when the scope of the state expands to cover many economic and social areas, its impact on economic growth could turn negative). In the same vein, using a sample of 48 countries, Grossman (1990) finds that government spending has both positive and

negative effects on growth; the positive one works through higher productivity and the negative one is caused by inefficient provision and distortionary effects of public taxation.

As noted by Bayraktar and Moreno-Delson (2010) in their literature review, conflicting results on the impact of public spending on economic growth still continue to be found in most recent studies (Schaltegger and Torgler 2006, Agell, Ohlsson, and Thoursie 2006, Benos 2009, Ghosh and Gregoriou 2006). A positive relationship between public spending and economic growth seems to be found only under specific circumstances. For instance, Gupta and al. (2005) show that government expenditure, especially its capital component, has a positive impact on growth for low-income countries when it is combined with a lower budget deficit. Baldacci and al. (2008) also find that education and health spending support higher growth in developing countries when controlled for governance. Overall, recent empirical findings remain largely consistent with Barro's initial insights. At the lower end, public spending (when properly prioritized) provides the necessary public goods to protect various forms of economic and civil and political freedoms. Beyond a certain threshold, public spending distorts individual choices and could even undermine economic freedom itself.

3. Data

3.1 Sources

The concepts of economic freedom, civil and political rights, and entitlements rights are notoriously difficult to quantify and attempts to grasp such complex subjects in one summary index can only be deceptive. Each concept is wide in scope (both breadth and depth) and impossible to summarize in one all-encompassing indicator. The best that can be done is to approach each concept through a combination of measurable indicators and proxies. The data used in this paper includes the index of Economic Freedom of the World of the Fraser Institute and the indices of Civil Rights and Political Liberties published by the Freedom House (Annex 1). These are among the few available databases that cover those concepts for a large sample of countries and a relatively long period of time in a comprehensive and consistent way.

The index of economic freedom (*EF*) used in this paper is the simple average of four of the five areas of the Fraser Institute's Economic Freedom of the World (EFW), namely the legal structure and security of property rights, access to sound money, the freedom to trade internationally, and the regulation of credit, labor and business.¹⁵ In turn each area consists in a number of sub-indicators (Annex 1). The legal structure and security of property rights measures the degree of judicial independence, impartial courts, protection of property rights, military inference in rule of law and the political process, integrity of the legal system, legal enforcement of contracts, and regulatory restrictions on the sale of real property. Access to sound money measures the money growth, standard deviation of inflation, rate of inflation, and freedom to own foreign currency bank accounts. Freedom to trade internationally measures the taxes on international trade, regulatory trade barriers, the size of the trade sector relative to expected,

¹⁵ <http://www.freetheworld.com/>

the black-market exchange rate, and the extent of international capital market controls. Regulation of credit, labor and business measures credit market regulations, labor market regulations, and business regulations. The EF index is constructed if the data is available on at least three out of the four areas of economic freedom; otherwise we marked the data as missing.

The index of entitlement rights (*ER*) is computed from the fifth area of the Fraser Institute's Economic Freedom of the World. It is a rough proxy to measure the inclination of government to expand the scope of their activities in providing goods, services and entitlements. It includes the general government consumption spending as a percentage of total consumption, transfers and subsidies as a percentage of GDP, government enterprises and investment, and top marginal tax rate. Because this measure is both broad and limited, it necessarily hides a lot of heterogeneity, especially regarding the quality of public expenditures and other forms of government intervention. In particular, among small governments, the index cannot distinguish between failed states and more effective states. Among larger governments, the index cannot differentiate efficient welfare states from ineffective and wasteful rent-seeking states. Yet, the index aims at capturing the overall characteristic that governments with large public spending, transfers and subsidies, numerous government enterprises, and high marginal tax rates are generally prone to provide various forms of entitlements (e.g., entitlement to healthcare, education, pension; entitlement to free or highly subsidized food, water, energy, and other goods and services; entitlement to public housing, rent controls, or publicly-guaranteed mortgage; entitlement to public employment, minimum wage; entitlement to be protected from foreign and domestic competition through bans, quotas, and other various limits to entry). The value of the index has been reversed so that the higher levels represent larger governments and by extension more extensive provisions of ERs.

The index of civil and political rights (*CPR*) is computed as the simple average of Freedom House's Civil Rights (CR) and Political Liberties (PL) indices.¹⁶ Civil rights indicates whether citizens are able to participate freely in the political process, including the right to vote for distinct alternative in legitimate elections, compete for public office, join political parties and organizations, as well as elect representatives that have a distinct impact on public policies and are accountable to the public. Political liberties allow for freedom of expression and belief, association and organization rights, rule of law and personal autonomy. The indices has been reversed as compared to the original Freedom House indices, so that the higher the level of index the higher the level of freedom. Because the indexes of civil rights and political liberties are highly correlated,¹⁷ we create a joint index of civil and political rights (CPR).

A number of control variables are used to depict exogenous factors, such as geography, landlockedness, and remoteness. To control for geography, we use the data from Gallup, Sachs and Mellinger (1998) on the extent of land located in the geographical tropics. To control for landlockedness, we also use the data from Gallup, Sachs and Mellinger (1998) on the proportion of the country's populations living within 100 km of the coastline or ocean-navigable river. To control for remoteness, we include a measure of the average distance to the world markets in line with the work of Redding and Venables

¹⁶ <http://www.freedomhouse.org/template.cfm?page=594>

¹⁷ The Spearman rank correlation between the two indices over the period of 1970-2007 amounts to 0.93.

(2004). We calculate as distance weighted average GDP of all other countries in our sample. The measure of distance originates from the CEPII data base and represents the geographical distance between the capital cities. We refer to these control variables as *Tropics*, *Pop100km*, and *Remoteness*, respectively.

Finally, given the possible noise introduced by initial conditions in terms of natural resource endowments, we include dummy variables for countries with subsoil assets (World Bank 2006). We refer to this dummy variable as *Resources*. It should be noted however that the effects of natural endowments on long term economic growth is unclear. Sachs and Warner (1997) find support to the hypothesis that countries rich in natural resources tend to grow slower. The authors include the ratio of natural resource (fuels and non-fuel primary products) exports to GDP in the base year and find it to be negatively correlated with economic growth. Similarly, Barro (1997) who includes a dummy variable for oil-rich countries in the growth regression finds it to be negative and statistically significant. However, several more recent studies found that the presence of natural resources does not necessarily present an impediment to higher growth; it depends on other policies pursued by the countries (e.g., Lederman and Maloney, 2007).

The data on GDP per capita and the amount of net overseas development assistance per capita (ODI) originate from the World Bank World Development Indicators data base.

3.2 Stylized facts

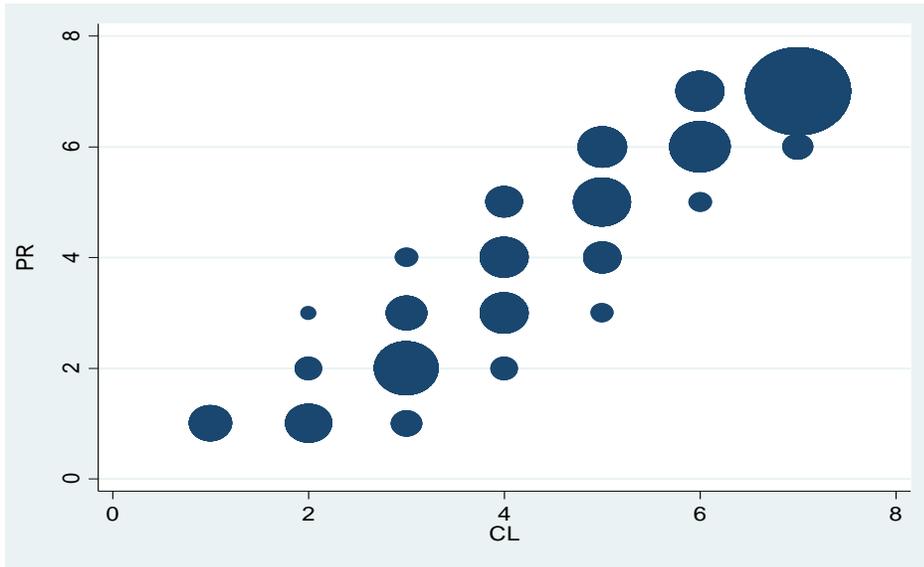
As noted, Freedom House’s Civil Rights and Political Liberties indices are closely related (Table 1). When looking at the most recent data available i.e. 2007 we note that all observations on civil rights and political liberties are located along the 45 degree line with the highest single cluster of countries representing developed countries with high levels of civil liberties and political rights (Figure 1). The indices has been reversed as compared to the original Freedom House indices, so that the higher the level of index the higher the level of freedom.

Table 1 Spearman rank correlation coefficients between the indices of civil liberties, political rights and economic freedom (1970-2007).

	CL	PR	EFW	IEF
CL	1			
PR	0.927	1		
EFW	-0.621	-0.602	1	
IEF	-0.608	-0.603	0.786	1

Source: Freedom House and Fraser Institute, 2007.

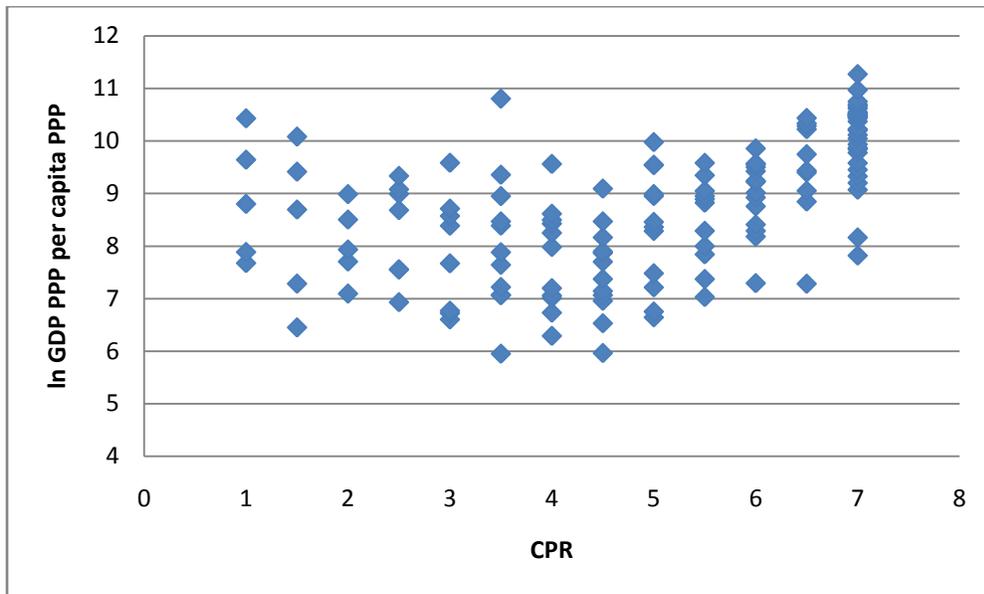
Figure 1. Civil Rights vs. Political Liberties, 2007.



Where 8 indicates the highest level of civil rights and political liberties, and the size of bubbles represent the number of countries.
 Source: Freedom House, 2007.

At a first glance the relationship between civil and political rights with the level of development in 2007 seems to be non-linear, where countries with low and high levels of CPR register slightly higher levels of GDP per capita as compared to countries with levels of CPR in the middle of the range (Figure 2).

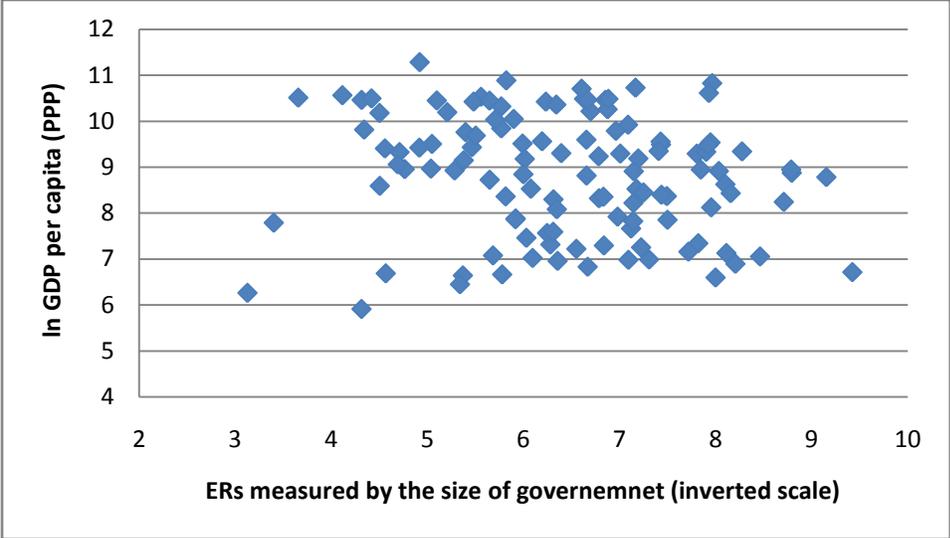
Figure 2. Civil and political rights vs. per Capita Income, 2007



Source: Freedom House and World Bank.

There is no apparent clear relationship between the level of entitlement rights and the level of development. Just by looking at the most recent data (2007), we cannot detect any clear pattern between the size of government and the level of GDP per capita (Figure 3).

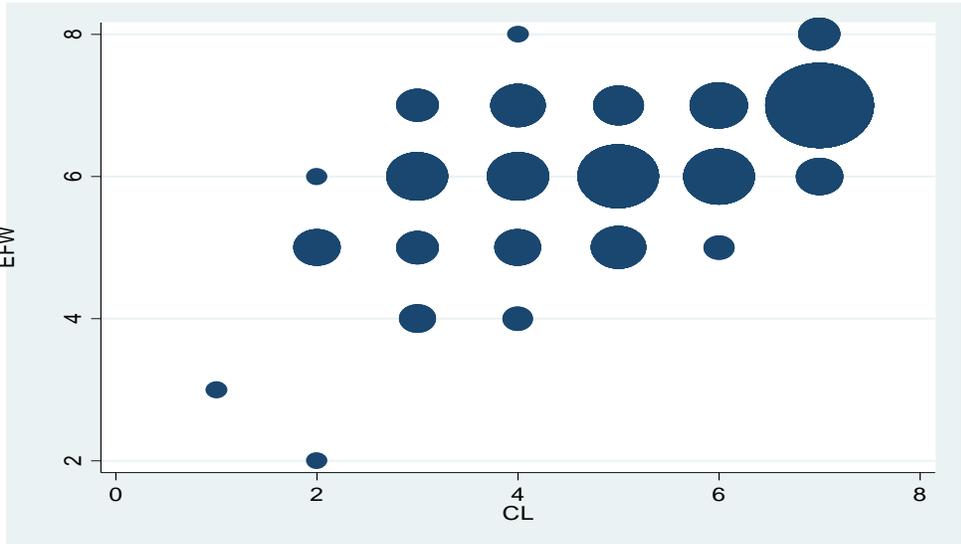
Figure 3. Entitlement Rights vs. per Capita Income, 2007



Source: Freedom House and World Bank.

Economic freedom and civil and political rights are not always related. The biggest cluster of countries enjoys both high levels of economic freedom and civil liberties, but there are several countries with high levels of either economic freedom or civil liberties and moderate levels of the other index (Figure 4).

Figure 4. Economic Freedom vs. Civil and Political Rights, 2007.



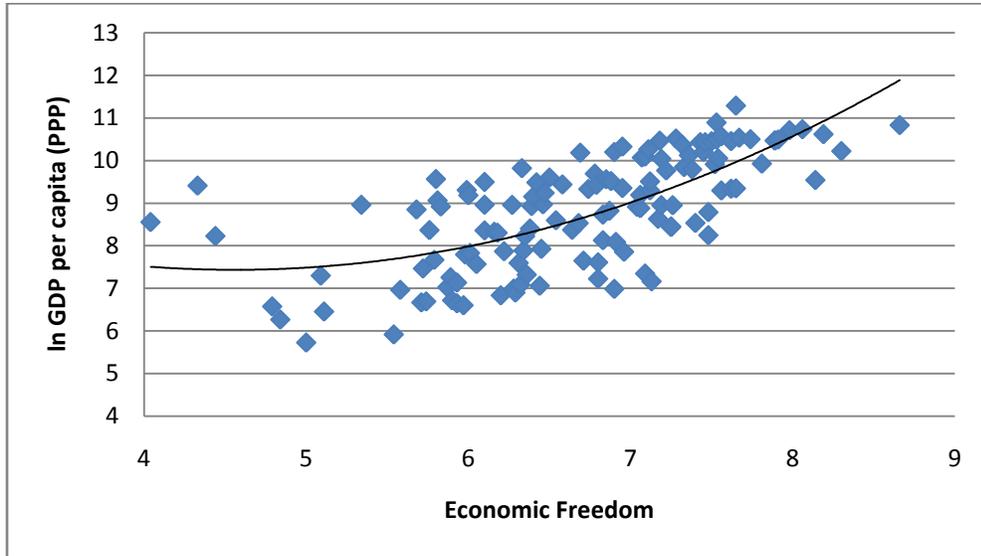
Where 8 = maximum level of rights, dots represent the number of countries.

Source: Freedom House and Fraser Institute, 2007.

Economic freedom and level of per capita income seem to be related. As

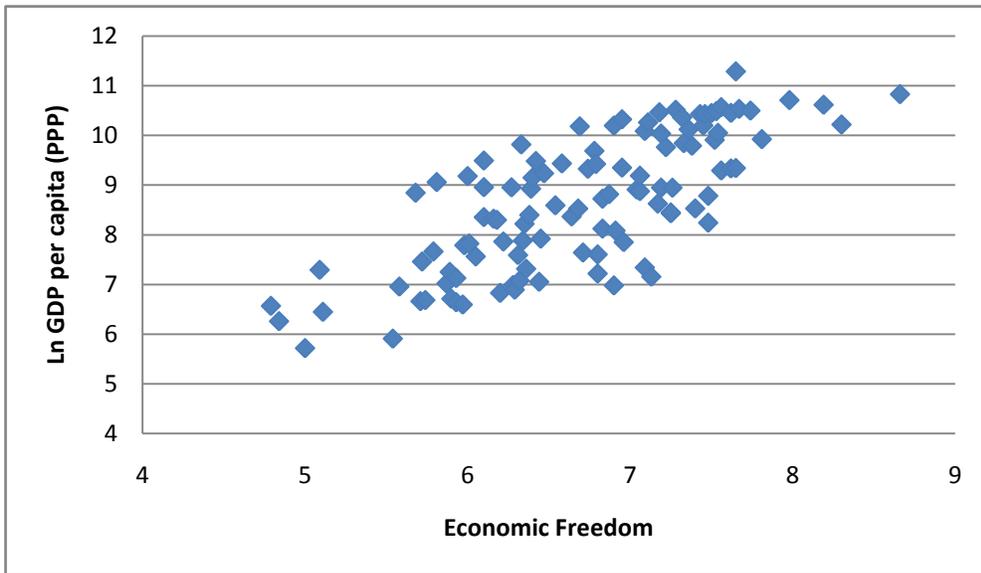
Figure 5 indicates countries that enjoy high levels of economic freedom are those that are associated with higher levels of economic development. The positive relationship seems to be even stronger when resource-rich countries are not included in the sample (Figure 6).

Figure 5. Economic Freedom vs. per Capita Income, 2007.



Source: Freedom House and World Bank.

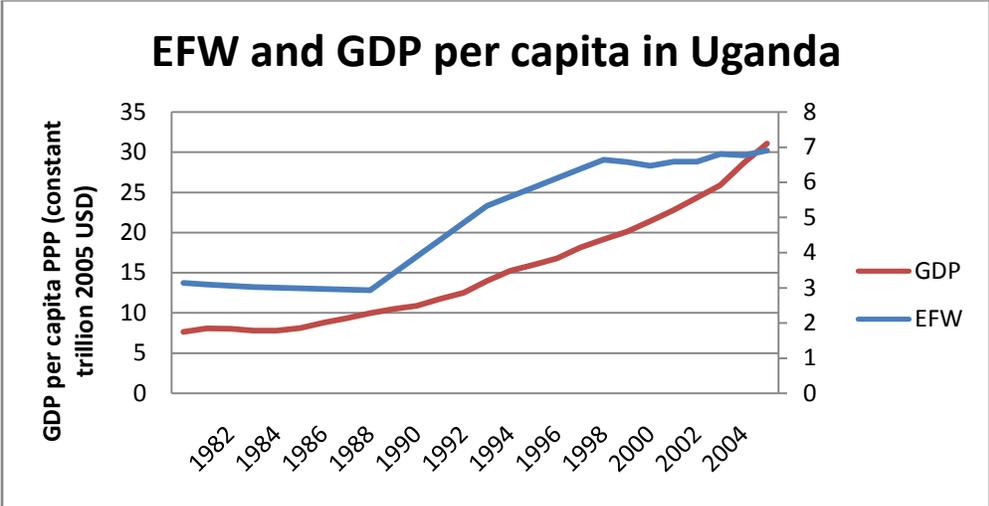
Figure 6. Economic Freedom vs. per Capita Income (excluding resource-rich countries), 2007.



Source: Freedom House and World Bank.

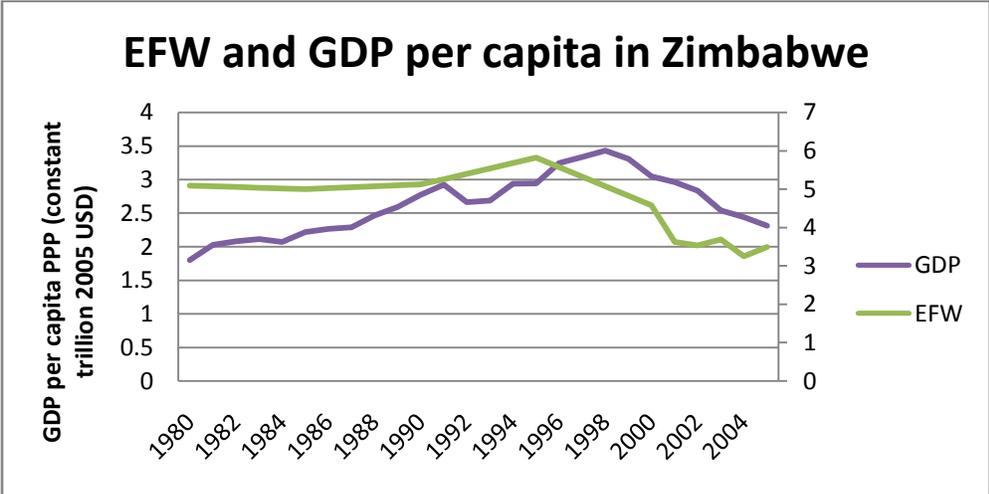
Further, we look at two countries that experienced the largest changes in the level of economic freedom between 1970 and 2007. Uganda was one of the countries that registered the biggest improvement in economic freedom over the period. Both the level of GDP per capita and the level of economic freedoms have been steadily increasing over the period (Figure 7). In contrast, Zimbabwe was one of the countries where economic freedom recorded the biggest fall over the period. We note that both economic freedom and the level of GDP have been going hand in hand, increasing up to the late 1990s and falling afterwards—with the turning point of economic freedom preceding that of GDP (Figure 8).

Figure 7. Economic Freedom vs. per Capita Income in Uganda over 1982-2007.



Source: Freedom House and World Bank.
 Note: the EFW index is available only every 5 years between 1980 and 2000, so its values have been interpolated.

Figure 8. Economic Freedom vs. per Capita Income in Zimbabwe over 1980-2007.



Source: Freedom House and World Bank.
 Note: the EFW index is available only every 5 years between 1980 and 2000, so its values have been interpolated.

3.3 Model

The methodology applied in this study follows closely that applied by Dawson (1998) who starts from the Mankiw, Romer, Weil's (1992) human capital augmented version of the Sollow (1956) model:

$$Y_t = K_t^\alpha H_t^\beta (A_t L_t)^{1-\alpha-\beta}$$

1

$$\alpha, \beta > 0, \alpha + \beta < 1$$

where Y is aggregate output, K is physical capital, H is human capital, L is labor and A is the level of (labor-augmenting) technology.

The model then relaxes the hypothesis of exogenous rates of growth of physical capital, human capital, and technology and assumes that these variables grow as a function of the more fundamental determinants of accumulation that constitute economic freedom (EF), civil and political rights (CPR), entitlement rights (ER), and exogenous conditions. Given that the quantity and quality of physical capital and human capital are notoriously difficult to measure and almost impossible to collect across countries on a timely and consistency basis, we by-pass the estimation of the direct effects of EF, CPR, and ER on the accumulation of physical and human capital and estimate instead the following reduced form:

$$\Delta Y_i/Y = \alpha_0 + \alpha_1 Y_{i0} + \alpha_2 EF_{i0} + \alpha_3 \Delta EF_i/EF + \alpha_4 CPR_{i0} + \alpha_5 \Delta CPR_i/CPR + \alpha_6 ER_{i0} + \alpha_7 \Delta ER_i/ER + \alpha_8 X_i + \epsilon_i$$

Where $\Delta Y_i/Y$ is the average growth of per capita GDP of country i, Y_0 is the initial level of GDP, EF_{i0} , CPR_{i0} , and ER_{i0} are the initial levels of the economic freedom index, civil and political rights index, and entitlement rights index, respectively. $\Delta EF_i/EF$, $\Delta CPR_i/CPR$, and $\Delta ER_i/ER$ are percentage point changes in the respective indexes over the period under investigation, while X_i is a vector of control variables determined by geography and natural resources (i.e., *Tropics*, *Remoteness*, *Pop100K*, and *Resources*). As indicated earlier, *Tropics* represents the extent of land located in the geographical tropics. *Remoteness* measures the average distance to world markets. *Pop100K* indicates the proportion of population living within 100 km of the coastline or ocean-navigable river. And *Resources* is a dummy variable for countries with subsoil assets.

In conducting the empirical research, a number of issues arise as to the model specification. Should one consider the level or change in the index of economic freedom? What is the most appropriate modeling approach? Should one try to measure the direct and/or indirect impact of economic freedom on growth? Finally, in addition to looking at the impact of the aggregate index of economic freedom, should we focus on the impact of its individual sub-components on economic growth? These questions are discussed in more details in Annex 2.

4. Results

The results presented in this section are a best endeavor to test the theoretical discussion with available data. As already indicated, the multifaceted concepts of economic freedom, civil and political rights, or entitlement rights are difficult to measure and the data used in the empirical analysis are necessarily imperfect proxies of the underlying concepts. And the gaps between the conceptual framework and the measured concepts only complicate further the empirical verification of the ideas motivating the paper. This caveat notwithstanding, the empirical analysis suggests that, for a given set of exogenous circumstances, the respect for and promotion of economic freedom and civil and political rights are on average strongly associated with a country's per capita income growth over the long run. In contrast, in most estimates, the extent to which the state expands its scope to provide entitlement rights does not add significant explanatory power in estimating countries' growth performance over the long run. In the estimates where it does, the results would suggest a negative effect of entitlement rights on economic growth. These findings are consistent in both the cross-section and panel estimates.

4.1 Cross-section estimates

Table 2 presents cross-section estimates of the model specification for about 100 countries (depending on data availability) over 30 years. The independent variable is the average growth of the GDP per capita in constant USD over the period 1975-2004. The various specifications allow for various combinations of variables to check the robustness of the estimated relationship. The first regression is similar to the specification employed by Gwartney, Holcome and Lawson (2006). Economic growth is mainly explained by the initial level of economic freedom and its growth over decades. This specification isolates the persistence of the impact of previous changes in economic freedom on economic growth. Using the same approach we introduce the initial level and changes over time of the civil and political rights, and entitlement rights. In addition to the initial level of the GDP per capita we add the control variables as discussed in the previous section: Pop100km, Tropics, Resources and Remoteness.

The results indicate that the level of economic freedom contributes to economic growth. We find that the level of economic freedom is consistently statistically significant across all specifications and has a positive impact on economic growth. For example in the most comprehensive specification in the 7th column of Table 2 our results indicate that a one unit change in the initial level of economic freedom (on a scale of 1 to 10) is associated with an almost 1 percentage point increase in the average economic growth rate during the period. As an example, Argentina with an economic freedom rating of 2.84 in 1975 could have expected an average growth rate 1 percentage point higher than its actual growth rate over the period had its initial level of freedom been that of Turkey (3.84). A similar comparison can be made between Turkey and Israel (4.8) or Israel and Cyprus (5.9) or Cyprus and Singapore (7) and finally Singapore and Luxembourg (8.15).

The results indicate that the change in economic freedom over time also contributes to economic growth. Improvements in economic freedom have a persistent impact on economic growth as growth in economic freedom in previous decades affects economic growth to a larger extent than the more recent changes in economic freedom. Specifically, a unit increase in the economic freedom rating during the earlier decade results in more than a 1.3 percentage point increase in the average growth rate over the

whole period, while a unit increase in the economic freedom rating during the later decade results in a 0.9 percentage point increase in the average economic growth rate over the entire period.

We also find the evidence of a positive impact of civil and political rights on economic growth. The initial level of civil and political rights is consistently statistically significant and positive across all regressions. A one unit change in initial civil and political rights conditions on a scale of 1 to 8 (i.e., the difference between say Mongolia and Chile in 1975) increases average economic growth by more than 0.3 percentage point during the period (column 7 of Table 2). A similar conclusion is reached if one compares the initial conditions of Chile (with a CPR of 2) and Egypt (CPR of 3), and then Egypt and Portugal (CPR of 4), Portugal and Monaco (CPR of 5), Monaco and Greece (CPR of 6), and finally Greece and the United States (CPR of 7). However, the results indicate that changes in civil and political rights conditions over time are not always associated with increased per capita GDP. The coefficients of changes in civil and political rights are in some specifications statistically significant and positive, but the relationship is not robust to different specifications.

Finally, we do not find any robust relationship between entitlement rights and economic growth. The initial level of the entitlement right is negative and statistically significant in regression where only this variable has been included (column 3) and not statically significant in other specifications. The change in entitlement rights seems to influence the average economic growth positively, but this relationship is not robust to the inclusion of economic freedom. In line with earlier literature, this may indicate that the role of the state on economic growth is ambiguous. When the state limits itself to the core functions of government responsibility, including the protection of various forms of freedom, and the provision of key public goods, it is likely to have a strong positive influence on growth. However, when the state grows beyond the size needed to fulfill these core functions, it may dampen economic growth (everything else equals elsewhere). This nonlinear effect between government intervention and economic growth is not easy to test as there is no guarantee (and for that matter little evidence) that governments necessarily prioritize the core functions of government responsibility over other forms of government intervention. In other words, a country with a low ratio of government spending to GDP may not necessarily maintain the rule of law and justice or provide the core public goods that are necessary to protect fundamental freedoms and hence development. Conversely, a country with a large welfare state, while distorting incentives and dampening economic growth, may perfectly deliver those core functions of government responsibility. The methodology and data used in this paper do not allow investigating this issue further. This would require additional research.

Consistent with the economic theory and all previous studies, the results indicate that the initial level of GDP per capita is statistically significant and has the expected negative sign in all specifications. Poorer countries tend to grow faster. Also, all control variables except for *Resources* are statistically significant in all specifications and have the expected signs. We find that countries located in the tropical climate and far away from the world's biggest markets tend to grow slower than otherwise similar countries in different locations. We also find that higher proportion of coastal population is associated with faster growth. The impact of resources on growth turns out to be statistically significant and positive in three out of 7 regressions. This would suggest that controlling for all other variables countries that possess

subsoil assets tend to grow faster. This is not necessarily inconsistent with the findings of some previous studies that found a negative impact of resource abundance on economic growth. It has been argued that natural resource abundance might lead to greater corruption and inefficient bureaucracies or that the governments in resource-rich economies are more likely to follow some form of state-led development policies or tend to waste the rents through profligate or inappropriate consumption. However, our various indicators of freedom might be controlling for these factors already, hence our results indicate that given two economies with the same level of economic freedom and other attributes, the economy that is in addition abundant in natural resources will tend to grow faster.

Table 2 Economic growth and economic freedom, civil and political rights and economic and entitlement rights – cross section estimates.

	Coefficient						
Column	1	2	3	4	5	6	7
EF	1.099***			0.946***	1.071***		0.969***
dEF 1985-1994	1.335***			1.250***	1.045***		1.375***
dEF 1995-2004	0.994***			0.827***	1.047***		0.928***
CPR		0.562***		0.428***		0.446***	0.332**
dCPR 1985-1994		0.426**		0.328*		0.335	0.230
dCPR 1995-2004		0.267*		0.210		0.264*	0.127
ER			-0.255*		-0.111	-0.192	-0.524
dER 1985-1994			0.013		0.108	0.029	0.121
dER 1995-2004			0.016		0.308**	0.026	0.283*
initial GDP per capita	-0.740***	-0.585***	-0.290**	-0.868***	-0.766***	-0.496***	-0.879***
Tropics	-1.694***	-2.179***	-2.413***	-1.660***	-1.803***	-2.343***	-1.748***
Resources	0.526	0.625	-0.099	1.041**	1.069**	0.616	1.360**
Pop100km	1.286***	1.660***	2.082***	0.813*	1.279***	1.599***	0.922*
Remoteness	-0.148**	-0.190**	-0.201**	-0.125*	-0.127*	-0.170**	-0.110
Constant	-5.202***	-1.281*	1.934**	-5.733***	-7.370***	0.181	-5.121***
No of countries	98	109	105	97	98	103	97
Adjusted R-sq:	0.562	0.429	0.405	0.588	0.599	0.429	0.608

*** significant at 1%, ** significant at 5%, * significant at 10%

Dependent variable: average annual growth of GDP per capita in constant USD over 1975 to 2005.

4.2 Panel estimates

Table 3 presents estimates of the relationship between economic freedom and economic growth in a panel of data from 1975 to 2005. The average economic growth is measured over 5 year intervals (as the index of Economic Freedom of the World Index is only available every 5 years during 1975-2000). Data on economic freedom is available for 121 countries. Like in the cross-section estimates, the dependent variable is explained by the initial levels of the various exogenous variables (EF, CPR, and ER), the changes of those variables in the previous periods (to avoid the problem of endogeneity), and a similar set of control variables.¹⁸

The panel data estimates are consistent with the cross section estimates. We find a robust positive relationship between the initial level of economic freedom and its growth in the previous period. In addition we find a similar relationship between economic growth and civil and political rights. Both the initial level and changes in the civil and political rights in the previous period contribute positively to the economic growth. This relationship is robust to the inclusion of the indicator of economic freedom. In contrast to the cross section estimates we find this time a robust negative relationship between the initial level of entitlement rights and economic growth in all specifications, while we still do not find any statistically significant impact of the change in entitlement rights on economic growth.

All the control variables are statistically significant in most specifications and have the same signs as in the cross section estimates presented in Table 2. Column 7 of Table 3 presents the results based on the fixed effects estimation. The only difference in this specification is that the growth of economic freedom in the previous period does not seem to affect economic growth in the current period. The overall fit of the fixed effects regression is poor and it does not seem to be the appropriate way to model the economic growth since the heterogeneity of the data set is driven by cross-country variation and not by time series variation.

¹⁸ We drop the Pop100km variable as it was consistently not statistically significant in the panel regression estimates.

Table 3 Economic growth and economic freedom, civil and political rights and economic and entitlement rights – panel estimates.

	Coefficient							
Column	1	2	3	4	5	6	7	7
initial EF	1.415***		1.152***		1.358***	1.116***	2.671***	
dEF(-1)	1.032**		1.039**		1.069**	1.072**	-0.193	
initial CPR		1.087***	0.737***	0.979***		0.691***	0.941**	
dCPR(-1)		0.519*	0.700**	0.548*		0.699**	0.548*	
initial ER			-0.711***	-0.546***	-0.428**	-0.353*	-1.469***	
dER(-1)			0.008	-0.071	0.312	0.188	0.213	
initial GDP per capita	-1.072***	-1.436***	-0.659***	-1.181***	-1.014***	-1.048***	-1.149***	-8.474***
Tropics	-2.752***	-3.647***	-3.407***	-2.418***	-3.325***	-3.109***	-2.733***	
Resources	1.471*	3.925***	0.196	2.623***	2.195***	1.613**	2.659***	
Remoteness	-0.241***	-0.445***	-0.336***	-0.243***	-0.328***	-0.245***	-0.246***	
Constant	-4.021**	-0.863	6.591***	-6.283***	1.585	-1.922	-4.406**	
No of obs.	511	624	573	508	564	511	508	508
No of countries	121	136	121	121	121	121	121	121
R-sq:								
within	0.087	0.146	0.162	0.118	0.170	0.102	0.131	0.237
between	0.435	0.308	0.280	0.425	0.340	0.426	0.418	0.075
overall	0.138	0.146	0.102	0.173	0.159	0.147	0.178	0.004

*** significant at 1%, ** significant at 5%, * significant at 10%

Dependent variable: average annual growth of GDP per capita in constant USD over 5 year intervals from 1975 to 2005.

5. Conclusion

Freedom and entitlement are largely two different paradigms to think about the fundamentals of economic development. Depending on the balance between free choices and more coerced decisions, individual opportunities to learn, own, work, save, invest, trade, protect, and so forth could vary greatly across countries and over time. The empirical findings in this paper suggest that fundamental freedoms are paramount to explain long term economic growth. For a given set of exogenous conditions, countries that favor free choice—economic freedom and civil and political liberties—over entitlement rights are likely to grow faster and achieve many of the distinctive proximate characteristics of success identified by the Growth Commission (2008): leadership and governance; engagement with the global economy; high rates of investment and savings; mobile resources, especially labor; and inclusiveness to share the benefits of globalization, provide access to the underserved, and deal with issues of gender inclusiveness. In contrast, pursuing entitlement rights through greater state coercion may be deceptive and even self-defeating in the long run.

These findings, which tend to support earlier results from the empirical literature, provide potentially important policy lessons for all countries. For developed countries, they suggest that prioritizing economic freedom over social entitlements could be an effective way to reform the welfare state and make it more sustainable and equitable in the long run. For middle income countries, such as countries in the midst of the Arab Spring but also countries in Asia and Latin America, they indicate that the quest for civil and political rights but also economic freedom implies the reduction of existing privileges and entitlements to create new social contracts. For low-income countries (as well as the international community), they provide an opportunity to reflect upon the achievement under the MDGs and the potential role of economic freedom, along with other fundamental freedoms, in a post-2015 MDG development agenda.

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Annex 1. The difficulty of Measuring Freedom

The *Fraser Institute's index of Economic Freedom in the World (EFW)* only aims at proxying the concept of economic freedom with available data. It was first compiled on the basis of 17 measures rating the countries on a scale of 0-10, where 10 means that a country is completely free (Gwartney, Lawson and Block, 1996). The index was revised in subsequent editions of the Freedom of the World report. In 2001, the index was extended to 21 components grouped in seven areas covering the size of government, economic structure and use of markets, monetary policy and price stability, freedom to use alternative currencies, legal structure and security of private ownership, freedom to trade with foreigners, freedom of exchange in capital markets. Further revisions took place with the 2002 edition of the index incorporating survey data on legal structure and government regulation. The total number of items increased to 37 grouped under five areas. The component ratings were averaged within each area to derive ratings for each of the five areas. These five broad areas remained unchanged in the subsequent editions and cover the following:

1. Size of government
2. Legal structure and security of property rights
3. Access to sound money
4. Freedom to trade internationally
5. Regulation of Credit, Labor and Business

The first area represents the extent to which countries rely on individual choices and market forces to allocate resources, goods and services. The second area represents the protection of persons and their rightfully acquired property, the rule of law, independent judiciary and impartial court system. The third component focuses on the access to sound money, as high and volatile rates of inflation distort relative prices and alter the terms of long term contracts making it difficult to plan for the future. Freedom to trade across borders has been captured in the fourth area. Finally the fifth area covers the administrative barriers to free exchange in credit, labor and product markets. The list of components of each area is provided in Box 1.

The choice of components of the EFW has been criticized for being a collection of largely heterogeneous and ad-hoc variables from institutional to policy measures (e.g. Leschke, 2000). Indeed the index covers both the “rules of the game” and the “outcomes of the game”. However, the notion of economic freedom is not an easily quantifiable concept and the EFW index is bound to be to some extent based on subjective choices and impressions. In addition to the choice of components, further imperfections arise due to the lack of data and the choice of aggregation methods. The missing data results in an index that is not fully comparable across countries and years. The aggregation procedure is based on largely arbitrary choices and has been criticized as being ad-hoc (Heckelman and Stroup, 2000).¹⁹ Furthermore,

¹⁹ Over time the Fraser institute came up with various aggregation methods. Gwartney, Holcombe and Block (1996) combine the original 17 elements in three different ways. The first method weighted every component by

various components of the index provide some information about the economic freedom and therefore a principal components method (PCM) would be preferable.²⁰ This method was used in the 2001 edition of the Freedom of the World report. But since 2002 the simple averages have been used to derive ratings for each of the five areas, while the aggregated score is a simple average of all five area ratings. Yet, de Haan, Lundström and Sturm (2006) find that the Spearman rank correlations between EFW indices based on simple averages and the remaining aggregation methods are all quite high (the rank correlation coefficient between 0.9 and 0.99). The biggest divergence is recorded for the indices based on the weights assigned by experts as well as between those indices and the principal component aggregation method (Spearman rank correlation of around 0.77-0.87).

Box 1. Components of the Fraser's Institute Economic Freedom in the World Index

Area 1 Size of government: expenditures, taxes and enterprises
A. General government consumption spending as a percentage of total consumption
B. Transfers and subsidies as a percentage of GDP
C. Government enterprises and investment
D. Top marginal tax rate
Area 2 Legal structure and security of property rights
A. Judicial independence
B. Impartial courts
C. Protection of property rights
D. Military inference in rule of law and the political process
E. Integrity of the legal system
F. Legal enforcement of contracts
G. Regulatory restrictions on the sale of real property
Area 3 Access to sound money
A. Money growth
B. Standard deviation of inflation
C. Inflation: Most recent year
D. Freedom to own foreign currency bank accounts
Area 4 Freedom to trade internationally
A. Taxes on international trade
B. Regulatory Trade Barriers
C. Size of the trade sector relative to expected
D. Black-market exchange rate
E. International capital market controls
Area 5 Regulation of Credit, Labor and Business
A. Credit market regulations
B. Labor market regulations
C. Business regulations

the weight equal to the inverse of its standard deviation. The other two methods weight the components based on a survey of experts in the field of economic freedom and on a survey among country experts.

²⁰ The PCM allows for the incorporation of all information comprised in the data without imposing any specific structure on the model.

The *Freedom in the World survey of Freedom House* provides an annual evaluation of the state of global freedom as experienced by individuals. The survey measures freedom—the opportunity to act spontaneously in a variety of fields outside the control of the government and other centers of potential domination—according to two broad categories: political rights and civil liberties. Political rights enable people to participate freely in the political process, including the right to vote freely for distinct alternatives in legitimate elections, compete for public office, join political parties and organizations, and elect representatives who have a decisive impact on public policies and are accountable to the electorate. Civil liberties allow for the freedoms of expression and belief, associational and organizational rights, rule of law, and personal autonomy without interference from the state.

Box 2. Components of the Freedom House’s Freedom of the World Ratings

The ratings process is based on a checklist of 10 political rights questions and 15 civil liberties questions. Scores are awarded to each of these questions on a scale of 0 to 4, where a score of 0 represents the smallest degree and 4 the greatest degree of rights or liberties

Area 1 Political rights

- A. Electoral Process (3 questions)
- B. Political Pluralism and Participation (4 questions)
- C. Functioning of Government (3 questions)

Area 2 Civil liberties

- A. Freedom of Expression and Belief (4 questions)
- B. Associational and Organizational Rights (3 questions)
- C. Rule of Law (4 questions)
- D. Personal Autonomy and Individual Rights (4 questions)

Like the EFW of the Fraser Institute, the attempt by Freedom House to survey the state of global civil and political freedom experienced by individuals has not escaped criticism. Minier (1998) and Freeman (2002) emphasize the subjectivity and bias involved in the building of the index, which is largely impervious to change in institutions and the interactions among them.²¹ Durham (1999) criticizes the available indicators of political freedoms, because they focus on outcomes rather than institutions. Whether civil and political rights foster or hinder development in the narrow sense of an increase in per capita income may however be beyond the point, and as soon as one broadens the concept of development to incorporate the general well-being of the population at large, including some basic civil and political freedoms, any democracy which ensures these freedoms is, almost by definition, more conducive to development on these counts than a non-democratic regime (Bardham 1993).

²¹ According to Freedom House’s definition, political rights enable people to “participate freely in the political process, including through the right to vote, compete for public office, and elect representatives who have a decisive impact on public policies and are accountable to the electorate”. Civil liberties allow for “the freedoms of expression and belief, associational and organizational rights, rule of law, and personal autonomy without interference from the state.” The methodology of the survey established basic standards (through a checklist of 10 political rights questions and 15 civil liberties questions) that are derived in large measure from the Universal Declaration of Human Rights.

Annex 2. The difficulty of Estimating the Impact of Freedom

In conducting the empirical research, a number of issues arise as to the model specification. Should one consider the level or change in the index of economic freedom? What is the most appropriate modeling approach? Should one try to measure the direct and/or indirect impact of economic freedom on growth? Finally, in addition to looking at the impact of the aggregate index of economic freedom, should we focus on the impact of its individual sub-components on economic growth? A brief literature review indicates that there are no easy answers to these questions.

Level vs. change of economic freedom

The analysis of the relationship between the level of economic freedom and economic growth could be missing the information about the persistence of the level of economic freedom. As Gwartney, Holcome and Lawson (1999) argue there might be a time lag between improvements in economic freedom and its impact on growth because it takes time to establish the credibility of the improved economic environment. Hence several studies use the level of economic freedom (either the initial level or an average for the period) along with the change in economic freedom in some standard cross-country growth model (e.g. Dawson, 1998, Gwartney, Holcome and Lawson, 1999, 2004 and Cole, 2004).

Model specification and estimation

Several previous studies do not assess the robustness of their conclusions to different model specifications. A handful of studies employ extreme bounds analysis (EBA), which consists of running a whole set of regressions and examining how sensitive parameters estimates are to different model specifications. The studies based on EBA generally come to less strong conclusions regarding the relationship between economic freedom and growth. However, de Haan and Sturm (2000, 2004) conclude that there is a robust relationship between the first difference of economic freedom indicator and economic growth. The differences in specifications are also due to the various explanatory variables. Several studies do not include physical or human capital in their specifications. We will return to this issue when discussing the specification employed in this study. In addition a few studies consider the presence of a non-linear relationship between economic freedom and growth i.e. Carlsson and Lundström (2002), Paldam et. al. (2003), Islam (1996) or de Haan and Sturm (2004). Paldam et. al. (2003) found that the relationship between economic freedom and growth is positive up to a certain point, when additional gains in economic freedom do not lead to higher growth. On the other hand de Haan and Sturm (2004) findings do not support the existence of a non-linear relationship between economic freedom and economic growth.

Most previous studies use ordinary least square (OLS) regressions to establish a strong correlation between economic freedom and economic growth. However, it is plausible to hypothesize that growth and high GDP per capital are causing institutional improvement measured by the index of economic freedom, i.e. that richer countries can afford better institutions (e.g. La Porta et. al., 1999). In the

presence of endogenous variables, OLS parameters are biased and inconsistent due to measurement errors, omission of explanatory variables correlated with the index of economic freedom and reverse causality. Previous empirical studies attempted to deal with potential endogeneity and the issue of causality of the EFW using an array of approaches. Sturm and de Haan (2001) and Carlsson and Lundström (2002) apply Hausman test of exogeneity and conclude that changes in economic freedom can be regarded as exogenous. Gwartney, Holcome and Lawson (2006) show that increase in economic freedom lead to future increases in economic growth, but prior growth rates exert a negative impact on the future change of economic freedom. Several other studies analyze Granger causality²² between economic freedom and economic growth. Dawson (2003) and Vega-Gordillo and Alvarez-Arce (2003) find that the level of economic freedom Granger-causes growth, but not the other way round. On the other hand Aixalá and Fabro (2008) find bilateral Granger causality between the level of the economic freedom, the change in economic freedom, and economic growth. Further, Faria and Montesinos (2009) reexamines the link between economic freedom and growth by isolating exogenous sources of variation in economic freedom and find that economic freedom impacts growth and income per capita positively and the results are robust to choice of various specifications, estimation techniques and samples.

Direct vs. indirect effects

It has been argued that economic freedom is a major factor driving investment into countries and hence it is redundant to include both investment and economic freedom in cross-country regressions. However, if other factors influence investment beyond the impact of economic freedom or if the effect of economic freedom operates via other channels than investment, then the inclusion of economic freedom should diminish the size and statistical significance of the estimated coefficient on investment. On the other hand if economic freedom works directly through an impact on factor productivity, its inclusion in a country regression should add explanatory power to the regression, but do not have an impact on the coefficient on investment. If economic freedom has both direct and indirect effect on economic growth, its inclusion should both add explanatory power and reduce the size and significance of the investment's impact on growth.

The empirical evidence on direct vs. indirect effects is mixed. Dawson's (1998) and Gwartney, Holcome and Lawson's (2004) results indicate the direct and indirect impact of economic freedom on growth. Similarly, Bengoa and Sanches-Robles (2003) analyzing the FDI inflows into 18 Latin American countries find that FDI is positively correlated with economic freedom and that economic freedom has a direct and indirect (through FDI) impact on economic growth. On the other hand de Haan and Sturm (2000) or Cole (2004) results do not generate support for the impact of economic freedom on investment. Dawson (2003) finds that the level and change of economic freedom Granger-cause investment, but out of the components of economic freedom, only one (freedom in the area of international finance) Granger-causes investment. No robust relationship is found between other areas of economic freedom and investment. In a more recent analysis Aixalá and Fabro (2008) find that the level of investment in

²² Granger causality test is a statistical hypothesis test for determining whether one time series is useful in forecasting another.

physical capital is Granger-caused by the levels and changes in economic freedom, in the case of levels this relation is bilateral. The authors also find bilateral Granger-causality relationship between the level of investment in human capital and economic freedom.

Aggregated index and its components

Several authors have made the case against aggregation (see e.g. Heckelman and Stroup, 2000 or Lundström, 2003). Apart from the problems with the adoption of various weighting schemes discussed above, one can argue that some elements of economic freedom might not be positively and robustly related to economic growth. Ayal and Karras (1998) find that out of 13 components of economic freedom, six are statistically significant and related to economic growth according to the predictions of economic theory (money growth, government enterprises, negative interest rate, black exchange rate, trade size and foreign capital). Inflation variability impact is not robust to different model specifications.

Carlsson and Lundström (2002) analyze seven categories from the 2000 edition of the Economic Freedom of the World index. They found a positive and robust relationship between two categories of economic freedom i.e. freedom to use alternative currencies, legal structure and security of private ownership and economic growth. The impact of the freedom to trade with foreigners is counterintuitive as authors find a robust negative relationship with growth. The authors find the hump-shaped relationship between economic growth and the size of government consumption and transfers. Increased freedom in terms of lower level of government consumption and transfers decreases the growth rate for the index values lower than 8.46; at higher values the impact is reversed.

Heckelman and Stroup (2000) analyze 14 elements of economic freedom and find that only four of them have a positive and significant effect on growth in bivariate regressions, while only two remain significant in multivariate regressions. These elements of economic freedom with a robust impact on economic growth are the difference between the official exchange rate and the black market rate with a maximum for countries with no black market for their currencies (positive impact) and top marginal tax rate (negative rate).

Dawson (2003) finds that the level of two components of economic freedom namely use of markets and property rights Granger-cause growth, while size of government is found to be caused by growth. When changes in the components of economic freedom are related to growth, the author finds that none of them are found to cause growth. The growth seems to Granger-cause improvements in economic freedom related to size of government and international finance.