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HUMAN RIGHTS AND ECONOMIC GROWTH

AN ECONOMETRIC
ANALYSIS OF
FREEDOM AND
PARTICIPATION
RIGHTS

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CONTENT

EXECUTIVE SUMMARY	6
1 INTRODUCTION	9
2 LITERATURE REVIEW AND REFLECTIONS	13
3 DATA	17
3.1 The Empowerment Rights Index	17
3.2 Economic growth	18
3.3 Covariates	19
3.4 Summary statistics	21
4 ECONOMETRIC METHOD	24
4.1 Granger causality test	25
4.2 Long-run effects	25
4.3 Regional analysis	25
5 RESULTS	27
5.1 What is the direction of causality between freedom and participation rights and economic growth?	27
5.2 How does freedom and participation rights affect economic growth?	29
5.2.1 Global analysis	29
5.2.2 Regional analysis	39
6 CONCLUSION	48
6.1 Subjects for further research	50
BIBLIOGRAPHY	52

ABBREVIATIONS

DIHR	Danish Institute for Human Rights
GMM	Generalized method of moments
TFP	Total factor productivity
GDP	Gross domestic product
CIRI	CIRI Human Rights Data Project
OLS	Ordinary least squares
ADL	Autoregressive Distributed Lag model

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EXECUTIVE SUMMARY

This analysis seeks to answer the question whether human rights have a positive effect on economic growth, and therefore are not only the right thing to do in normative terms but also the smart thing to do in economic terms. In the context of this Working Paper we analyze this question with point of departure in freedom and participation rights as defined below.

The analysis is a follow-up to an earlier working paper published in early 2016 by Sano and Marslev (2016) at the Danish Institute for Human Rights, which explored the relationship between human rights and economic development on the basis of a literature study.

Background

In their literature study, Sano and Marslev (2016) investigated the linkage between economic growth and four possibly human rights-related aspects of socio-economic development: 1) reduced economic inequality, 2) human development, 3) effective institutions and governance and 4) absence of conflict and political instability. The aim was to examine if human rights should be seen as an active part of the growth model, rather than a passive outcome of it. In general they found support for this hypothesis.

This time we step beyond the literature studies and undertake an empirical, econometric analysis of how freedom and participation rights interact with economic growth using the dynamic panel data estimation method.

We employ the CIRI Empowerment Index to measure freedom and participation rights, namely freedom of domestic and foreign movement, freedom of speech, freedom of assembly and association, workers' rights, electoral self-determination and freedom of religion. Using a sample of 167 countries between the years 1981-2011, we study how changes in the additive index as well as the individual freedom and participation rights affect economic growth.

Our aim is to answer the following questions:

- 1) Can a causal relation between economic growth and freedom and participation rights be documented empirically?
- 2) Can freedom and participation rights contribute positively to economic growth or does a trade-off exist between the two?

- 3) Does the effect of freedom and participation rights on growth affect some intermediate factors which in turn affect economic growth?
- 4) Does the effect of freedom and participation rights on growth differ depending on which region of the world one is looking at?

Human rights are the smart thing to do

Through a Granger causality test we find that there is a significant causal effect from freedom and participation rights to economic growth, when accounting for the respect for these rights 10-15 years back in time. In contrast, we find no significant causal relation for the reverse directional flow, running from economic growth to freedom and participation rights.

We then estimate how freedom and participation rights affect economic growth in the long run by means of a dynamic panel data model. In contrast to the Lee thesis, which assumes that there is a trade-off between human rights and economic growth, we find that the long-run effect of the measured rights on growth is positive and significant. This is mainly driven by the right to freedom of speech, freedom of assembly and association and electoral self-determination. Furthermore, the analysis indicates that the effect may partly be channelled through economic and institutional factors.

Finally, we examine whether and how the same freedom and participation rights affect economic growth in various regions of the world. Here we find that the long-run effect differs across regions. The effect of the empowerment measure on growth is positive and significant for Sub-Saharan Africa and Europe and Central Asia, but there is no significant long-run relationship between freedom and participation rights and growth in the Middle East and Northern Africa, South Asia and the Americas. Importantly, we find no evidence in any of the regions of a trade-off between rights and economic growth. For both Sub-Saharan Africa and Europe, the underlying rights that seem to drive a positive long-run relation between freedom and participation rights and growth are freedom of assembly and association and electoral self-determination.

Stepping stone

It is recognized in the analysis that the data used are based on a narrow three-level assessment of respect for freedom and participation rights and that the data can be biased due to the fact that the two different sources used in CIRI are based on expert assessments of the human rights situation in the countries rather than sample survey data. Comparable sample survey data of this kind covering the years under review are not available. This notwithstanding, it seems necessary to further explore the conclusions of this Working Paper in more detailed (country) case studies.

Given these caveats, this analysis sheds preliminary light on a very poorly examined subject. First, it supports the claim of Sano and Marslev (2016), that human rights may not only be the *right thing* to do in normative terms, but might actually be the *smart thing* to do in economic terms. This means that the strengthening of these rights does not represent a cost in terms of economic growth. Moreover, it rejects the claim of the Lee thesis i.e., that there is a trade-off between human rights and economic growth

from the vantage point of freedom and participation rights. This analysis can be seen as a stepping stone towards a greater understanding of how human rights affect our societies.

1 INTRODUCTION

Can human rights be not only the right thing to do in normative terms, but also the smart thing to do in economic terms? – This question was raised and examined in the working paper ‘The Economy of Human Rights’ issued by the Danish institute for Human Rights in the first part of 2016 (Sano and Marslev). The authors note that economic development is unquestionably important for the realization of human rights. Economic development provides better conditions for education, health, employment and welfare in general. However, the reverse relation, i.e. the importance of human rights, especially freedom and participation rights, for economic development is less well understood¹, and the question remains: *Can human rights contribute to economic development*, and more narrowly as addressed in this study, *economic growth*²?

In the literature study, Sano and Marslev explored four possible pathways through which human rights may affect *economic growth*: 1) reduced economic inequality, 2) human development, 3) effective institutions and governance and 4) absence of conflict and political instability. Their literature review shows that the four themes are causally linked to economic growth in the sense that reduced inequality, human development, effective institutions and governance, and absence of conflict and instability can spur economic growth. Hence the evidence regarding these four themes, which are all potentially human rights related, led to a hypothesis that human rights conceived broadly as either economic-social or as civil and political rights may be a positive factor in engendering economic growth. However, different human rights may be important for each of the pathways. For instance, economic, social and cultural rights may be particularly important for human development (e.g. health and education), whereas civil and political rights may be more important in relation to effective institutions and good governance³.

¹ Research has found that for example education and health, which to some degree are human rights, contribute to economic growth (e.g. Barro, 1991; Ranis, Stewart and Ramirez, 2000). What has been less studied, however, is the specific human rights dimension for example included in “right to education”.

² Economic development is a multifaceted concept where growth is one aspect, income level another, and distribution of income is a third. What we are in fact interested in is the influence of human rights on “inclusive” growth, which is “growth that creates opportunity for all segments of the population and distributes the dividends of increased prosperity, both in monetary and non-monetary terms, fairly across society” (OECD, <http://www.oecd.org/inclusive-growth/>), but due to data availability and for the sake of econometric analysis GDP growth is chosen as the economic variable of interest both by Marslev and Sano (2016) and in this paper.

³ Research on institutions and governance as growth determinants use indices on political rights and civil liberties as measures of the quality of institutions (Moral-Benito, 2012).

In this follow-up analysis, we focus on civil and political rights, more specifically freedom and participation rights. We step beyond the literature studies and undertake an econometric analysis using panel data estimation methods on 167 countries from 1980-2011.

Human rights are intrinsically valuable, i.e. they represent a valuable norm without being related to any specific purpose. In this analysis however, we are interested in investigating the possible instrumental role of human rights on economic growth⁴. The core of the analysis is to examine how freedom and participation human rights, as defined in the CIRI index⁵, affect economic growth empirically. Thereby this study sheds light on a poorly illuminated field of research. First, the causal relationship between economic growth and freedom and participation rights is not well understood. Second, the actual effect of freedom and participation rights on economic growth has hardly been analysed empirically and possible transmission channels between these rights and economic growth have only been examined in a few studies, which we will discuss below.

Our aim is therefore to answer the following questions:

- 1) Can a causal relation between economic growth and freedom and participation rights be documented empirically?
- 2) Can freedom and participation rights contribute positively to economic growth or does a trade-off exist between the two?
- 3) Does the effect of freedom and participation rights on growth affect some intermediate factors which in turn affect economic growth?
- 4) Does the effect of freedom and participation rights on growth differ depending on which region of the world one is looking at?

There are several challenges intrinsic in estimating the causal effect of freedom and participation rights on economic growth. First there is the question of which data source is the most accurate to use for the purposes of this analysis. We have chosen to use the

⁴ Writing in 2008, Seymour and Pincus warned against taking an instrumental perspective on human rights, partly because they thought that this would lead to a focus on only civil and political rights, but partly also because they argued that a instrumental perspective would delegitimise social choices that deny rights to a minority in the hopes of generating growth for the majority. Human rights responsibility towards growth does not release one from responsibility towards human and minority rights, they argued. While we agree that certain classes of rights deprivation are inadmissible in line with Seymour and Pincus, it still seems relevant to examine how human rights processes can lead to better development outcomes, also in terms of economic growth.

⁵ The analysis relies on the CIRI Human Rights Data Project Empowerment Rights Index (Cingranelli and Richards, 2008). This is an additive index constructed from seven sub-indices measuring governments' respect for rights regarding freedom of movement (domestic and foreign), freedom of speech, freedom of assembly and association, worker's rights, electoral self-determination and freedom of religion.

CIRI Empowerment Index because of a generally acknowledged close connection between freedom and participation rights and institutional development and good governance (The CIRI indicators are used as data sources when constructing some of the World Wide governance indicators (Kaufmann, Kraay and Mastruzzi, 2009)). Institutions have been shown to be very important vehicles of economic growth (Rodrik, Subramanian and Trebbi, 2004; and Moral-Benito, 2012) and the rights reflected by the Empowerment Rights Index can be seen as inducing institutional effectiveness and good governance, as will be further discussed in Section 2.

Second it is a challenge to establish in what direction the causal effect runs. Through a Granger causality test we find that there is a significant causal effect from freedom and participation rights to economic growth, when accounting for the development of empowerment 10-15 years back in time. On the contrary we find no significant causal relation running from economic growth to freedom and participation rights.

Third, countries with certain freedom and participation rights might have a range of unobserved characteristics, for example institutional, historical or cultural characteristics, which can also impact their growth. This makes cross-country regressions subject to a number of biases, and therefore calls for panel-data techniques such as country fixed effects, which control for such country-specific characteristics. Moreover freedom and participation rights might affect growth differently over time, underlining the need for a dynamic model of economic growth. By means of a dynamic panel data model we estimate how freedom and participation rights affect economic growth in the long run. In contrast with the Lee thesis, which assumes that there is a trade-off between human rights and economic growth, we find that the long-run effect of the measured rights on growth is positive and significant. This is mainly driven by the right to freedom of speech, freedom of assembly and association and electoral self-determination. Furthermore, the analysis indicates that the effect may be partly channelled through economic and institutional factors. Furthermore, we examine whether and how the same freedom and participation rights affect economic growth in various regions of the world. Here we find that the long-run effect differs significantly across regions.

The empirical strategy is partly inspired by Acemoglu et al. (2014) and Papaioannou and Siourounis (2008), who study the effect of democratization on economic growth where the dynamics of economic growth and estimations of long-run effects are taken into account. However, instead of focussing on democratization we will look at the effect of freedom and participation rights.

The rest of the paper is organised by section. Section 2 comprises a brief literature review and theoretical reflections on the subject. Section 3 describes the data used, including the *Empowerment Rights Index*, and discusses methodological challenges associated with the measure. Moreover, it outlines data sources, explains the choices of covariates and possible intermediate factors and presents descriptive statistics of our sample. Section 4 outlines the econometric method that we use to estimate how freedom and participation rights affects growth at global and regional levels. This

section presents our dynamic panel model and goes through our empirical strategy by further explaining the use of Granger Causality tests, Standard Within estimation and Generalized Method of Moments (GMM) estimation. Section 5 presents our results, first summarising the results from the causality test, then the results from our global model and finally the results from our regional model. Section 6 concludes and reflects on subjects for further research. We present several additional materials in the online annex accompanying this paper⁶.

⁶The Annex can be found [here](#).

2 LITERATURE REVIEW AND REFLECTIONS

To date the literature linking freedom and participation rights with economic growth is not comprehensive. However some theoretical discussions and empirical work, mostly on the relation between economic growth and human rights in general, offer an impression of the field⁷.

Concerning the effect of economic growth on human rights McKay and Vizard (2005) state that it is commonly accepted that *economic development* has an important impact on human rights, as resources are needed to protect and promote human rights. Growth performance is important if the intention is to realize rights and freedoms quickly and fully; however the nature of growth is equally important, e.g. a volatile growth path might compromise a country's ability to expand and maintain key rights. Thereby it is not clearly determined if *growth* actually has any effect—positive or otherwise—on human rights.

Concerning the effect of human rights, including freedom and participation rights, on economic growth, the relation found in the existing literature is also ambiguous. Amartya Sen has been one of the most prominent scholars in starting a discussion on the positive effects of rights on the economy. Sen has criticized the 'standard' economic framework for neglecting the value of human rights. Although he argues that political liberties and civil freedoms are directly important in their own right (the argument of the intrinsic value of human rights), and do not have to be justified by narrow political arguments because they are morally and ethically valuable, he argues that there might also be an instrumental argument that rights and liberties may induce growth and development (Sen, 1999). He argues that human rights are not the primary end of development, but among the principle means. They constitute a necessary condition for income and growth. Civil and political freedoms such as freedom of speech and elections help promote economic security. Uncertainty associated with lack of respect for human rights makes the return on investment more insecure and volatile. This suggests that disregarding human rights may lead to lower investment rates, lower productivity and lower growth.

Thereby, Amartya Sen directly argues against the 'Lee thesis'⁸, which states that there is a trade-off between human rights and economic growth and that denying political and civil rights is acceptable if it promotes economic development and the general wealth of the population. One example that seems to support this thesis is the case of China, where major growth rates have been achieved, while simultaneously disregarding some civil and political rights (Blume and Voigt, 2007; McKay and Vizard, 2005).

⁷ For a broader conceptual presentation of economics and human rights see Anderson (2017).

⁸ Named after Lee Kuan Yew, who was the first prime minister of Singapore (1959-1990).

McKay and Vizard (2005) also discuss this trade-off between human rights and economic growth. They find, through a review of existing literature, that not only is there much less of a trade-off than what is recognized in the field of economics, but rights and economic growth might be mutually complementary. They state that *'policies that enhance key rights can have a positive impact on growth in a way which is consistent with theoretical and empirical work on determinants on growth'* (p. 12). For example, they emphasize how the right to freedom of speech and information decreases imperfect, incomplete and asymmetric information, which are key sources of market failure and hence reduce the adverse effects on investment and growth. Moreover, freedom of information plays an important role in extending public accountability and efficiency, where a lack of access to information often results in corruption by government officials, which also has adverse consequences for investments and economic growth. McKay and Vizard's arguments could be further elaborated by drawing in the right to freedom of movement, which makes a population more mobile, enhancing efficient resource allocation and thereby affecting employment and growth positively. In addition, freedom of assembly and association may empower people to organize, protest and publicly criticise government decisions and actions, thereby checking potential tendencies of corruption or mismanagement. McKay and Vizard conclude by expressing the need for further development of a theoretical framework and empirical investigation. Our paper is an attempt at such an additional empirical investigation. We first examine the causal direction between economic growth and freedom and participation rights. We then estimate the actual effects of freedom and participation rights on growth.

Blume and Voigt (2007) empirically examine the economic effects of violating human rights, using data between 1990 and 2000 in a pooled ordinary least squares (OLS)-estimation. In their study, they distinguish between various groups of human rights (basic rights⁹, property rights, civil rights and social rights) and analyse their individual contribution to various economic variables such as growth, investment and productivity. They – like us – use the CIRI Empowerment Rights Index as one of their human rights variables. They find evidence against the 'Lee thesis': no matter how they measure human rights, they do not find a significant negative impact of human rights on welfare and growth. Moreover, they find some evidence that human rights are conducive to economic growth, but the estimated direct effect of the Empowerment Index on economic growth and investment is found to be insignificant. However, the same estimated effect is positive and significant in regards to productivity, when doing ordinary least square regressions. The drawback of their regression analysis is that they do not look at the long-run effects¹⁰ of human rights on growth and they do not take

⁹ Basic human rights include the absence of torture, the absence of political killings and the absence of people who disappear - reflecting the freedom from state interference (Blume and Voigt, 2007).

¹⁰ They only use a lag of 3 years.

into account the dynamics of data¹¹. With our data spanning three decades (1981–2011), we are able to examine such effects.

As noted above, Blume and Voigt (2007) find that the Empowerment Rights Index has a significant positive effect on productivity. A few other authors have also looked into different transmission channels through which respect for human rights could affect the wealth of a country. Blanton and Blanton (2007a) find a positive relation between physical integrity¹² and trade (using pooled regressions). They find that repression discourages trade, and that countries that respect human rights trade significantly more with all types of states. In another study, they additionally find that developing countries that respect the physical integrity of humans are more successful in attracting foreign direct investments than those characterized by abusive human rights practices (Blanton and Blanton, 2007b).

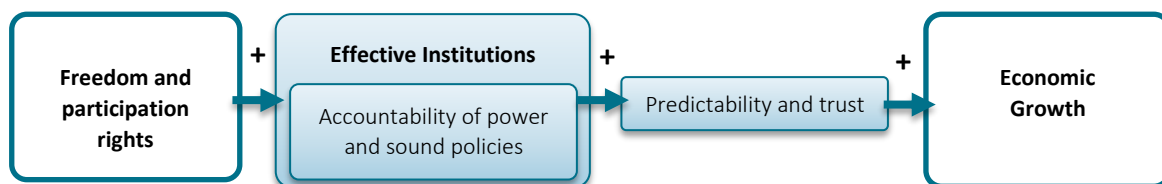
Other possible transmission channels are effective institutions and good governance, as argued by Sano and Marslev (2016), which have been shown to have positive implications for economic growth¹³. Institutions are systems of established and prevalent social rules that structure social interaction (Hodgson, 2006). Effective institutions reduce transaction costs (e.g. cost of information) so as to realize more of the potential gains of human interaction (North, 1991). They reduce market inefficiencies by allocating power to groups with interests in broad-based property rights, and with capabilities to create effective constraints on power-holders (Acemoglu, Johnson and Robinson, 2005). Moreover Kaufmann, Kraay and Mastruzzi (2009) relate good governance to six sub-indices: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness (e.g. the quality of public services), Regulatory Quality (e.g. the ability to formulate and implement policies), Rule of Law, and Control of Corruption. Some of these governance criteria will depend on the prevailing norms and practices in societies regarding, e.g. the rule of law. However, they will also depend on citizen power, i.e. the ability of individuals and groups to check duty-bearers and governance structures, the confidence and freedoms with which citizens and groups can gain insights into governance or raise critiques of duty-bearers. This citizen power will, to a large degree, depend on freedom and participation rights. The importance of freedom and participation rights for growth can thereby be hypothesized to be embedded in these institutional checks and balances. Figure 1 illustrates how freedom and participation rights can be hypothesized to affect economic growth through effective institutions and good governance.

Figure 1: Freedom and participation rights, effective institutions and economic growth.

¹¹ This will be further discussed in Section 3.

¹² Additive CIRI index constructed from the Torture, Extrajudicial Killing, Political Imprisonment, and Disappearance sub-indicators.

¹³ Douglass North (1981) argued that property rights institutions were the main vehicle of economic growth. Acemoglu, Johnson and Robinson (2005) related the importance of institutions in engendering economic growth to enforcement of contracts and to the ensuring of the rule of law.



This paper contributes to the existing literature in several ways. First we conduct a Granger causality test to ensure that data supports the causality going from freedom and participation rights to growth, rather than relying on theoretical assumptions of the causal direction. Second we utilize the advantages of panel data e.g. by using fixed effects estimation to control for country- and time-invariant factors, in contrast to Blume and Voight's choice of OLS-regressions. Third, by extending the time period of data to 1981-2011, we provide a better base for the analysis than has been available in previous research. Fourth, we include 10 or 15 lags in our estimations, allowing changes in the empowerment index to take effect on growth more slowly, namely with a lag of up to 10 or 15 years. Last, we include a regional analysis, investigating how the effects of freedom and participation rights may change between geographical regions. Altogether this gives us a broader data basis and several new statistical tools to examine the issue.

3 DATA

The analysis is based on an unbalanced¹⁴ panel comprising 167 countries from 1981-2011¹⁵.

3.1 THE EMPOWERMENT RIGHTS INDEX

Our main variable of interest is **freedom and participation rights**¹⁶ measured by standard-based data on the violation of human rights, using the *Empowerment Rights Index* from the CIRI human rights data (Cingranelli and Richards, 2008). The Empowerment Rights Index is an additive index constructed from seven sub-indexes measuring governments' respect for rights regarding freedom of movement (domestic and foreign), freedom of speech, freedom of assembly and association, worker's rights, electoral self-determination and freedom of religion.

The CIRI Empowerment Rights Index draws data from U.S. State Department reports and Annual Reports by Amnesty International, and then assesses the respect of governments for the rights in question by coding infringement of rights enjoyment according to frequency: 0 means frequently occurring violations, 1 means infrequent or occasional violations, and 2 means no reported violations. Consequently, a score of 14 indicates high respect for all seven rights, while 0 means no respect for these rights. The aggregated scores are available for the entire period (1981-2011). This makes it possible to track both progress and deterioration with respect to the measured rights, but also to analyze how and to what degree specific rights are respected or violated in each country. We accept this method of measuring freedom and participation rights at the very general level of our analysis, but also recognize that other and more localized measurement tools are relevant. Distinct from the level of the additive index we also seek to analyse how the individual rights used in the index may affect economic growth.

Methodological challenges

It is a tremendous challenge to quantify and measure human rights. Therefore, using the CIRI data as the main identifier of the freedom and participation rights of a country is not without methodological challenges. The CIRI data are based on expert assessments. Individual country scores are established using the US State Department Country Reports on Human Rights Practices combined with Amnesty International's Annual Reports. The country scores are therefore not based on survey data, but on assessments and interpretation of the narrative reports deriving from each organization. Biases might occur in such assessments due to organizational bias or due to ignorance. For example, 1) actual human rights abuses are not necessarily identical to the human rights abuses that are reported. It seems conceivable that a particular country with very little respect for human rights would try to conceal its record of abuses; while a more 'human rights-

¹⁴ Not all variables are available for all observations

¹⁵ Countries with very limited data have been discarded. The countries in our sample are shown in Annex 0, Table A.0.1.

¹⁶ Though some worker's rights (labour rights) may also be commonly understood as social rights.

abiding'-country would be more open on these issues – leading to a potential bias in the scores. 2) The US State Department is a political institution and therefore the reports may also be considered as politically biased although neutrality is the ambition. It cannot be excluded, therefore, that the reports are biased towards a more favorable evaluation of allied countries compared to other countries. 3) There may be diverging human rights practices within countries depending on their size and fragmentation. This could be an issue for the data of, for example, India.

Further methodological challenges include the additive nature of the measure, which does not reflect which sub-indices drive the results. To account for this, we ran regressions on all of the sub-indicators. Another drawback is that the measurement cannot be able to indicate if it is less harmful to go from no violence of freedom and participation rights to a few violations - than from a few to a high degree of violation. Moreover, the data will suffer from variance truncation, i.e. that the rough three-step score used in CIRI (0, 1, and 2) may collapse considerable variation within a country in a too simplified manner.

Despite these methodological challenges, we have deliberately chosen the CIRI index indicators for what they do represent, and have sought to moderate our interpretations given these challenges¹⁷.

3.2 ECONOMIC GROWTH

The outcome variable is **economic growth** measured by *GDP per capita growth* in constant prices from the World Development Indicators. The data are available from the entire period (1981-2011). To take account of convergence¹⁸ **initial income level** is also included, measured by 'initial' *log GDP pr. Capita* (level of GDP). That is for a 10-year

¹⁷ Furthermore, we acknowledge that CIRI is not the only organization measuring civil and political rights. Freedom House has established the Freedom in the World index, which characterizes countries as Free, Partly Free and Not Free. Civil liberties is a measure of the freedoms of expression and belief, associational and organizational rights, rule of law, and personal autonomy without interference from the state. The more specific list of rights considered vary over the years. Countries are graded between 1 (most free) and 7 (least free). Political rights is a measure of the ability 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. The specific list of rights considered varies over the years. Countries are graded between 1 (most free) and 7 (least free). For more information: <https://freedomhouse.org/report/freedom-world-aggregate-and-subcategory-scores>. The measurement is less specific in terms of freedom and participation rights compared to the Empowerment index, and therefore the CIRI indicator is considered to be more relevant for this analysis. The Freedom House indicators on Civil Liberties and Political Rights are used as a robustness check in the analysis and results can be found in Table A.2.1 and A.2.2 in Annex 2.

¹⁸ The idea of convergence in economics (also sometimes known as the catch-up effect) is the hypothesis that poorer economies' per capita incomes will tend to grow at higher rates than richer economies.

long-run effect the *log GDP pr. capita* is lagged 10 years, for a 15-year long-run effect the *log GDP pr. Capita* is lagged 15 years. This makes up our baseline model.

3.3 COVARIATES

In order to analyse possible confounding or intermediate factors through which freedom and participation rights might seem to affect growth, we add a number of control variables/covariates to the analysis. Our choice of covariates are based on the discussions of intermediate pathways in Sano and Marslev (2016), and on the existing literature outlined in Section 1. This subsection presents each of the selected covariates.

Regime type

As covariates or intermediate variables, we apply data on regime type from Polity IV that is available for the entire period (1981-2011). Polity IV assigns ranges to countries between -10 (hereditary monarchy) and 10 (consolidated democracy)¹⁹. A country's regime type might determine the underlying structures regarding freedom and participation rights of a population. Most democracies build on the same principles as reflected in the *Empowerment Rights Index*, whereas human rights violations tend to be significantly higher in an autocracy. This means that there may be a strong relationship between regime type and freedom and participation rights. Moreover, regime type may also affect growth positively, as found by Acemoglu et al. (2014) and Papaioannou and Siourounis (2009). Therefore, we include regime type in the analysis in order to account for the possible relationship between regime type, freedom and participation rights and growth.

Conflict and political instability

Next, we include a measure of conflict and political instability. These data are from the Center for Systemic Peace available for the entire period (1981-2011), and the variable measures major episodes of political violence by a magnitude score of international, civil and ethnic violence and warfare. Sano and Marslev (2016) found evidence that political violence and instability are detrimental to economic growth; further, discrimination of social rights may create group-based grievances that may spill over into violent conflict, and violations of civil and political rights can be a direct trigger of conflict. Thereby, conflict might be an intermediate factor between lack of freedom and participation rights and economic growth.

Economic factors

Furthermore, we include a number of economic factors as controls in the analysis. These include *total factor productivity* from Penn World Table, *unemployment* (as a percentage of total labour force, national estimate) from the World Development Indicators, *total*

¹⁹ For countries that remain stable over the entire period, the fixed effects estimation implies that the regime type will not affect the growth level for these countries. However only 25 of the 167 countries in the analysis remained completely stable during the entire period. These are in general a number of the democratic OECD countries and a handful of dictatorships/semi-dictatorships such as Saudi Arabia, United Arab Emirates, China and Cuba. For more information on this see Annex 0, A.0.2.

investment (as a percentage of GDP) from IMF and *trade* (as a percentage of GDP) from the World Development Indicators. Data are available for the entire reporting period (1981-2011). Countries and investors may be more prone to trade with and invest in non-repressive states, where there is confidence that the government does not interfere with market and business transactions in an undue manner and where there is a higher degree of predictability and transparency (Blanton and Blanton, 2007a; Blanton and Blanton, 2007b). Furthermore, a population that feels empowered may be more motivated and engaged in contributing to the economy and thus more productive (Blanton and Blanton, 2007a). Freedom and participation rights may therefore positively influence trade, investment, productivity and employment that all contribute positively to growth, as has also been discussed in section 1 under the empirical evidence.

Effective institutions and good governance

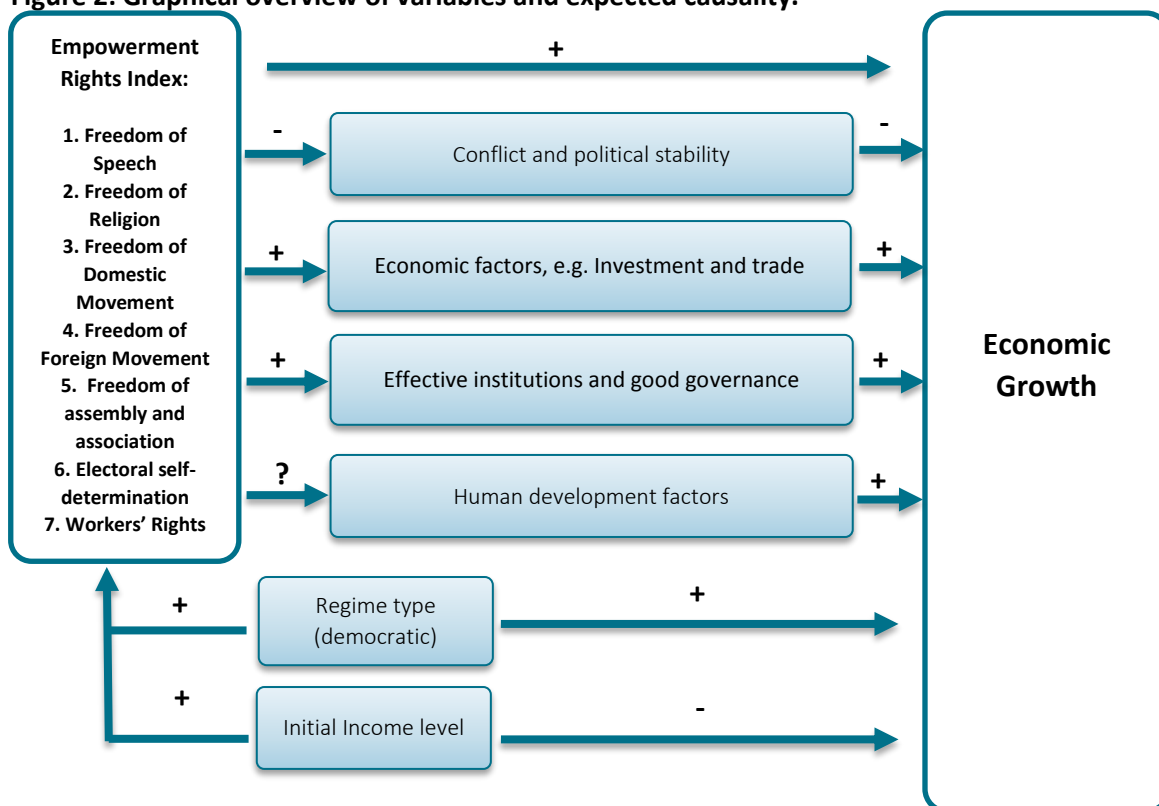
We also include a group of factors of effective institutions and good governance as controls in the analysis. These include *government effectiveness*, *rule of law*, and *control of corruption* from the World Governance Indicators only available from 1996-2011. Strong freedom and participation rights such as electoral self-determination, freedom of speech and freedom of assembly and association form a solid basis for rule of law, government effectiveness and control of corruption as they enforce a government's accountability and transparency and this may furthermore contribute positively to growth, as was discussed by Sano and Marslev (2016) and further explained in Section 1.

Human development factors

Finally, we include human development factors in the analysis. These are represented by *human capital* from Penn World Tables and *life expectancy* from the World Development Indicators. Data were available for the entire reporting period (1981-2011). Freedom and participation rights may ease access to information, education and the mobility of a population, leading to a more educated and healthier population that furthermore contributes to growth, as was also discussed by Sano and Marslev (2016). However, there might be a stronger link to other types of human rights than freedom and participation rights. In particular, one could expect economic, social and cultural rights to influence these human development factors. However, this is beyond the scope of the present analysis.

Figure 2 gives a graphical overview of the variables used in the analysis and the expected causality (as discussed above).

Figure 2: Graphical overview of variables and expected causality.



3.4 SUMMARY STATISTICS

Summary statistics of our sample are reported in Table 1 for all variables used in the analysis. We report the summary statistics for each region separately, as the analysis also focuses on the regional effects of freedom and participation rights on growth. We use the World Bank's classification of regions: Sub-Saharan Africa (SSA), Europe and Central Asia (ECA), East Asia and Pacific (EAP), Middle East and Northern Africa (MENA), Latin America and the Caribbean (LAC), South Asia and North America. Due to the size of the following regions, we have included South Asia with East Asia and Pacific in the region 'Asia' and included North America with Latin America and the Caribbean in the region 'Americas', and is therefore not analysed separately.

Table 1: Summary statistics for the main variables over the time period used in the analysis

	Number of observations pr. variable							
	Global	SSA	ECA	MENA	EAP	LAC	Asia	America
<i>Empowerment index</i>	4500	1261	1192	442	577	780	763	842
<i>GDP pr. capita growth</i>	5459	1527	1399	520	687	1047	896	1117
<i>GDP pr. capita</i>	5451	1509	1424	524	666	1048	876	1118
<i>Regime type</i>	5056	1517	1305	528	621	805	831	875
<i>Conflict</i>	4778	1429	1214	518	594	759	792	825
<i>Trade share GDP</i>	5275	1470	1352	487	670	1020	876	1090
<i>Total factor productivity</i>	3170	694	1068	288	384	608	448	672
<i>Investment share GDP</i>	4713	1279	1221	458	571	914	773	982
<i>Unemployment share labour force</i>	2787	210	1050	227	398	737	493	807
<i>Rule of law</i>	3173	855	893	304	399	570	513	608
<i>Government effectiveness</i>	3163	853	893	304	395	566	509	604
<i>Control of corruption</i>	3163	853	893	304	395	566	509	604
<i>Human capital</i>	3826	982	1100	342	508	670	668	734
<i>Life expectancy</i>	5762	1557	1610	560	735	1020	945	1090
Mean value of variables								
	Global	ssa	eca	mena	eap	lac	asia	america
<i>Empowerment index</i>	8.39	7.00	10.27	3.67	7.66	10.98	7.49	11.09
<i>GDP pr. capita growth</i>	1.79	1.26	1.97	1.17	2.87	1.59	3.03	1.58
<i>GDP pr. capita</i>	8,736.26	1,419.84	19,445.05	8,449.6	8,910.57	4,679.45	6,931.92	6,519.79
<i>Conflict</i>	0.79	0.81	0.21	1.39	1.14	0.57	1.49	0.56
<i>Regime type</i>	2.29	-0.83	6.45	-4.63	2.15	5.5	2.07	5.86
<i>Trade share GDP</i>	81.27	76.51	90.76	82.12	93.83	76.38	82.9	74.21
<i>Total factor productivity</i>	0.98	1.05	0.92	1.00	0.94	1.03	0.93	1.02
<i>Investment share GDP</i>	23.18	22.32	23.25	24.19	26.28	21.3	26.26	21.33
<i>Unemployment share labour force</i>	8.88	11.70	9.14	11.45	4.75	9.76	4.84	9.56
<i>Rule of law</i>	-0.08	-0.71	0.53	-0.26	0.1	-0.2	0.00	-0.08
<i>Government effectiveness</i>	-0.01	-0.73	0.64	-0.19	0.17	-0.03	0.06	0.09
<i>Control of corruption</i>	-0.03	-0.6	0.53	-0.25	0.04	-0.04	-0.06	0.07
<i>Human capital</i>	2.32	1.75	2.82	2.09	2.46	2.36	2.31	2.44
<i>Life expectancy</i>	66.02	53.38	73.39	68.98	68.38	70.28	67.05	70.75
Standard deviation of variables								
	Global	ssa	eca	mena	eap	lac	asia	america
<i>Empowerment index</i>	4.19	3.29	3.82	2.44	4.86	2.95	4.43	2.87
<i>GDP pr. capita growth</i>	6.13	7.76	5.7	7.53	4.47	4.4	4.17	4.29
<i>GDP pr. capita</i>	13,393.12	2,389.9	17,997.53	11,979.08	11,759.63	4,147.45	10,843.02	8,338.64
<i>Regime type</i>	7.06	6.03	5.97	5.48	6.79	5.27	6.72	5.2
<i>Conflict</i>	1.9	1.76	0.79	3.03	2.12	1.44	2.42	1.41
<i>Trade share GDP</i>	49.92	50.58	44.3	37.36	73.93	39.88	68.59	39.83
<i>Total factor productivity</i>	0.18	0.23	0.14	0.2	0.13	0.14	0.13	0.13
<i>Investment share GDP</i>	11.21	17.32	6.37	6.51	11.25	5.86	11.16	5.68
<i>Unemployment share labour force</i>	5.88	9.07	5.61	6.69	2.85	5.15	2.93	5.00
<i>Rule of law</i>	0.99	0.66	1.09	0.72	0.98	0.73	0.91	0.89
<i>Government effectiveness</i>	0.99	0.61	1.05	0.74	1.01	0.62	0.93	0.74
<i>Control of corruption</i>	1.01	0.6	1.17	0.68	1.08	0.75	1.01	0.85
<i>Human capital</i>	0.59	0.4	0.29	0.5	0.56	0.34	0.61	0.43
<i>Life expectancy</i>	10.22	7.33	4.98	6.32	8.02	4.73	8.18	4.93

Note: Number of observations are years x countries.

First of all, the table shows that the amount of observations within each region diverges considerably. For example, Sub-Saharan Africa and Europe and Central Asia together make up more than 50% of our total sample. Therefore, the regional estimates should be interpreted with this in mind. Moreover it is important to mention that the smaller sample for total factor productivity and the unemployment share might create a bias,

since these mainly cover more developed countries, such as the OECD countries²⁰. The same does not go for the sample size of the three institutional variables, as the sample is only smaller due to the shorter period of observations in general, and in that way is not biased towards certain countries.

Second, the means in the table display several well-known patterns. The global mean of the empowerment index is 8.39, but there are relatively large variations across regions – the average is less than 4 for the Middle East and Northern Africa and it is above 11 for the Americas. Moreover, Europe and Central Asia is above the global average, whereas Sub-Saharan Africa and Asia are just below. Average economic growth is highest in Asia, followed by Europe and the Americas, and lowest in the Middle East and Northern Africa. The average score of regime type also differs greatly across regions. Europe and the Americas are the most democratic regions, whereas Africa and the Middle East are the most autocratic. Additionally, there seem to be different structures regarding institutions and good governance across the regions. Europe and Central Asia has the highest average score of the governance indicators Rule of law, Government effectiveness and Control of corruption and Sub-Saharan Africa has the lowest average score. Finally, we see that life expectancy is the highest in Europe and Central Asia and the lowest in Sub-Saharan Africa.

Third, the standard deviations in the table tell us something about the variation across as well as within countries in each region. The table shows that the empowerment index on average varies the most in East Asia and Pacific reflecting the fact that this region consists of countries that differ along several dimensions – e.g. from New Zealand and Australia with high average scores to China with low scores. The same applies for Europe and Central Asia as this region consists of both Western European countries with high average scores and countries belonging to Eastern Europe and Central Asia with lower scores. Moreover, growth seems to vary widely between countries in both Africa and the Middle East, which may be due to the oil-producing countries within the regions. In this study, we only analyse the patterns across regions, and not within each region. However, we do control for the main differences within the regions analysed. An in-depth analysis of the within-regional patterns is beyond this study, but an interesting subject for further research.

²⁰ See Annex 0, A.0.3 for further information.

4 ECONOMETRIC METHOD

The empirical strategy of the analysis is to model and test how freedom and participation rights affects GDP growth by means of regression analysis with panel data models. In order to account for the dynamics of GDP, the general model for the empirical analysis is an Autoregressive model with Distributed Lags $ADL(p, r)$ in a panel data framework

$$y_{it} = \sum_{k=1}^p \gamma_k y_{i,t-k} + \sum_{k=0}^r \beta_k x_{i,t-k} + \sum_{k=0}^q \varphi_k z_{i,t-k} + u_{it} \quad (1)$$

$$u_{it} = \alpha_i + \varepsilon_{it}$$

where $t = 1, \dots, T$ are years and $i = 1, \dots, N$ are countries. y_{it} is the dependent variable, GDP growth pr. capita, $x_{i,t-k}$ is the explanatory variable, the Empowerment Rights index, and $z_{i,t-k}$ the covariates accounting for indirect effects, for example the intermediary factors through which freedom and participation rights may affect growth such as economic and institutional factors, as discussed in section 2.3. u_{it} is the unobserved error term that is decomposed into country-specific effects, α_i , and an idiosyncratic term $\varepsilon_{it} \sim (0, \sigma_\varepsilon^2)$. GDP growth per capita is assumed and tested to be a stationary process.

The choice of estimation method depends on the behaviour of unobserved country-specific effects α_i . If fixed effects are present, i.e. the country-specific effects are correlated with the regressors, pooled OLS estimation will be inconsistent. This is the case in this study. Therefore, we eliminate α_i by modelling variables in deviation from their time-averaged values, i.e. within transformation (Cameron and Trivedi, 2005). However, due to endogeneity of the lagged dependent variable, the Within estimates have an asymptotic bias of order $1/T$. This is known as the Nickell bias (Nickell, 1981). Because T is of moderate size in this study ($T = 30$), the bias should be of smaller size. Therefore, we choose the Within estimation technique as our baseline. Nonetheless, as a robustness check, the model is also estimated in a GMM framework that deals with the Nickel bias. In particular, the model is estimated by the system-GMM estimator developed by Blundell and Bond (1998)²¹. The choice of lag length p is based on the absence of serial correlation in the panel residuals. A test for serial correlation developed by Arellano and Bond (1991) is performed as a specification test²². Moreover, the Sargan test of over-identified restrictions is performed.

²¹ The system GMM framework addresses endogeneity problem by formulating valid moment conditions using lagged levels of the dependent variable as instruments for the model in differences and differences of the dependent variable as instruments for the model in levels.

²² The test examines serial correlation in the differenced residuals. If the residuals are serially uncorrelated, there should be evidence of first-order serial correlation and no evidence of second-order serial correlation.

4.1 GRANGER CAUSALITY TEST

First, we perform a Granger causality test in order to examine the direction of causality between freedom and participation rights and economic growth. By the standard Granger causality definition, it is said that a variable x_{it} is causing y_{it} for each individual if y_{it} is better predicted using all available information instead of using information apart from x_{it} (Granger, 1969). The Granger causality test is performed on the following panel data model:

$$y_{it} = \sum_{k=1}^p \gamma_k y_{i,t-k} + \sum_{k=0}^r \beta_k x_{i,t-k} + u_{it} \quad (2)$$

The null hypothesis is that there does not exist any causality relations, $H_0: \beta_k = 0$; the alternative is that there exist countries and lags for which the parameter is nonzero, $H_A: \beta_k \neq 0$. The test is performed for the empowerment index (and its sub-indexes) and economic growth – in both directions²³.

4.2 LONG-RUN EFFECTS

Second, we estimate the ADL-model using the standard Within estimator and the system-GMM estimator. Of particular interest are the long-run effects of a permanent increase in the empowerment index x on GDP growth y and these can be derived by rewriting the above model (1)

$$\lambda = \frac{\sum_{k=0}^r \beta_k}{1 - \sum_{k=1}^p \gamma_k}$$

We calculate the point estimates of the nonlinear combination of parameter estimates $\hat{\lambda}$ and corresponding standard errors, test statistics and significance levels, where the squared standard errors are computed by means of the Delta method (Cameron and Trivedi, 2009).

4.3 REGIONAL ANALYSIS

Furthermore, the empirical analysis aims at estimating the relationship between freedom and participation rights and growth at a regional level. In order to capture possible different relations for the regions, dummies and interaction terms are included in the regression analysis. In particular, the model includes a dummy D_i for regions of Sub-Saharan Africa, Europe and Central Asia, South and East Asia and Pacific, North- and Latin America and the Caribbean and the Middle East and Northern Africa respectively and an interaction term between these dummies and x_{it} . Both contemporary and lagged values of the time-varying variables are included.

$$y_{it} = \sum_{k=1}^p \gamma_k y_{i,t-k} + \sum_{k=0}^r (\beta_{1k} + \beta_{2k} D_i) x_{i,t-k} + \beta_{3k} D_i$$

²³ The Granger causality test for panel data models is suggested by Hurlin and Venet (2001).

$$+ \sum_{k=0}^q \varphi_k \mathbf{z}_{i,t-k} + u_{it} \quad (3)$$

We estimate the above model for each region using both the Within estimator and the system-GMM estimator (but the GMM-estimates are only presented in Annex 3, Table A.3.1). Again, we are particularly interested in the long-run effects of a permanent increase in the empowerment index x on GDP growth y for each region.

5 RESULTS

By means of the econometric method described in the section above, we analyse the relationship between freedom and participation rights and economic growth empirically. In particular, we examine 1) the direction of causality between the two variables, and 2) how freedom and participation rights affects growth at both a global and regional level. The results are presented in the sub-sections below.

5.1 WHAT IS THE DIRECTION OF CAUSALITY BETWEEN FREEDOM AND PARTICIPATION RIGHTS AND ECONOMIC GROWTH?

We examine the direction of causality between the Empowerment Rights index and economic growth by means of a Granger causality test (as outlined in section 4). First, we analyse whether there is causality from freedom and participation rights to growth. The test examines whether the empowerment index has any value in predicting economic growth. The null hypothesis is that the empowerment index has no value in predicting growth and the alternative is that the empowerment index has some value in predicting growth. The test does not say anything about the sign nor the size of the relationship between the two variables. Table 2 shows the results from the Granger causality test of whether the empowerment index causes economic growth.

Table 2: Causality from freedom and participation rights to economic growth

Lags	Test-statistic	P-value
5	2.12	[0.83]
6	1.66	[0.95]
7	4.55	[0.71]
8	4.38	[0.82]
9	7.79	[0.56]
10	32.62***	[0.00]
11	16.43	[0.13]
12	18.64*	[0.10]
13	23.87**	[0.03]
14	29.00***	[0.01]
15	50.73***	[0.00]

Note: The model is estimated using the system-GMM estimator. Lags refer to the number of lags of the regressor, the test statistic is χ^2 and is reported with corresponding p-values inside []. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. See annex 1 table A.1.1 for the full table.

As we expect the effect of freedom and participation rights on growth to be lagged, the test is performed for different lag lengths of the empowerment index. Specifically, we account for the development in the empowerment index 1-15 years back in time. The first column of Table 2 summarises the lag length (only lag 5-15 shown here), the second and third column the test statistics of the Granger causality test and corresponding p-

value²⁴. The null hypothesis is rejected at a 10% significance level for lag 10-15. This means that freedom and participation rights causes economic growth when accounting for the development of freedom and participation rights 10-15 years back in time, indicating that there is a long-run relationship between the two variables. This is further supported by a Granger causality test for each of the seven sub-indicators: Freedom of religion, freedom of speech, freedom of domestic movement, freedom of foreign movement, freedom of assembly and association, self-electoral determination and worker rights. For each of the sub-indicators, we reject the null hypothesis for the different lag lengths, meaning that each sub-indicator Granger causes economic growth (see Annex 1, Table A.1.1.1-A.1.1.7 for the results).

Next, we examine the direction of causality from economic growth to freedom and participation rights. The results are summarised in Table 3²⁵.

Table 3: Causality from economic growth to freedom and participation rights

Lags	Test-statistic	P-value
5	7.12	[0.21]
6	6.22	[0.40]
7	4.46	[0.73]
8	4.98	[0.76]
9	12.12	[0.21]
10	9.37	[0.50]
11	6.00	[0.87]
12	9.46	[0.66]
13	7.56	[0.87]
14	12.28	[0.58]
15	11.90	[0.69]

Note: The model is estimated using the system-GMM estimator. Lags refer to the number of lags of the regressor, the test statistic is χ^2 and is reported with corresponding p-values inside []: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Here, the null hypothesis is accepted for all lags, meaning that economic growth does not cause freedom and participation rights. This is further supported by tests of Granger causality from growth to each of the seven sub-indicators. The null hypothesis is accepted for all sub-indicators for almost all lag lengths, meaning no causality (see Annex 1, Table A.1.2.1-A.1.2.7 for the results).

Conclusively, the results from the Granger causality test state that the causality is strongest from freedom and participation rights to economic growth and not the other way around. This also holds for all sub-indicators of the empowerment index. This gives a first indication that promoting freedom and participation rights may be the *smart thing to do* in terms of economic development. Moreover, the results could indicate that

²⁴ See Annex 1, Table A.1.1 for the full Table.

²⁵ See Annex 1, Table A.1.2 for the full Table.

although growth performance in theory should be able to help the realization of human rights by releasing resources, it does not seem to be an automatic consequence of economic growth; rather, this is a political choice.

5.2 HOW DOES FREEDOM AND PARTICIPATION RIGHTS AFFECT ECONOMIC GROWTH?

The Granger causality test states that the causality is strongest from freedom and participation rights to economic growth. However, the test does not say anything about whether freedom and participation rights affects growth positively or negatively. Hence, this is further analysed at both a global and regional level in the sub-sections below.

5.2.1 GLOBAL ANALYSIS

Baseline model: The effect of freedom and participation rights on growth

We formulate a model for all countries in our sample in order to determine the effect of freedom and participation rights on growth at a global level. Our baseline model estimates the effect of the empowerment index on GDP per capita growth when accounting for the development in the empowerment index over the past 10-15 years. In accordance with Model (1) outlined in Section 4, we estimate both the short- and long-run effect. However, our focus is the long-run effect as we are mainly interested in permanent changes rather than temporary fluctuations. Moreover, we expect changes in freedom and participation rights to affect growth through a range of intermediate factors (as discussed in both section 1 and 2) and this may result in a slow adjustment process. In addition, our Granger causality analysis indicated a long-run relationship between the two variables. Furthermore, the model includes GDP per capita in levels in order to account for convergence, i.e. that poorer countries tend to grow faster than richer countries. Finally, the model includes lags of the dependent variable GDP per capita growth in order to account for the dynamics in GDP and to remove serial correlation in the model. We estimate the model using both the Within and system GMM-estimation technique, cf. Section 4. Results are summarised in Table 4.

Table 4: The effect of freedom and participation rights on GDP per capita growth

	Within estimates		System-GMM estimates	
	(1)	(2)	(3)	(4)
Empowerment index	0.06 (0.07)	0.24*** (0.09)	0.41*** (0.10)	0.35*** (0.11)
GDP per capita (lagged)	-1.79*** (0.61)	1.18 (0.73)	-1.26** (0.59)	-0.5 (0.52)
Long-run effect of empowerment index	0.33** (2.39)	0.41*** (3.05)	0.76*** (4.00)	0.98*** (3.37)
Lags of empowerment index	10	15	10	15
Lags of GDP growth	2	4	2	4
N	2626	1890	2626	1890
Countries	148	145	148	145
Time periods	21	16	21	16
AR2-test			-1.18	-0.59
Instruments			154	154
Sargan test			141.68	132.52

Note: The dependent variable is GDP per capita growth. GDP per capita in levels is included as lag 10 (column 1 and 3) or 15 (column 2 and 4) according to the number of lags of the empowerment index. Number inside () are standard deviations except for long-run effects where numbers in () are z-values and *: $P < 0.1$, **: $P < 0.05$, ***: $P < 0.01$. N is the total number of observations. The AR2-test denotes the test statistics of serial uncorrelated residuals of second order and the Sagan test denotes the test statistics for the test of overidentified restrictions.

The long-run effect of freedom and participation rights on growth is positive and significant. A permanent one-unit increase in the empowerment index (in a given country) will increase growth (in that country) by approximately 0.62 percentage points (average of the estimates) in the long run. However, the size of the estimates is difficult to interpret, as the empowerment index is an additive measure, whereas the interpretation of a one-unit increase in the empowerment index will have a different meaning depending on the sub-indicator that causes the increase (as discussed in Section 2). In addition, the interpretation of an increase in the index can vary a lot from country to country within a given sub-indicator, as very different circumstances may cause an increased rating of the given country. For example, an increase in the sub-indicator Freedom of Speech in one country could be due to the fact that a given media is no longer under government censorship, whereas in another country an increase could be that journalists are no longer imprisoned for criticising the government. This makes it difficult to generalise an increase in the empowerment index both across sub-indicators and countries. Therefore, we have focussed solely on the sign and significance of the estimates. We focus only on the long-run effects of freedom and participation rights as we are mainly interested in permanent changes and it is difficult to say whether short-run effects are temporary fluctuations or sustained over time. The level of GDP per capita income is partly significant and negative as expected – the lower GDP per

capita, the higher growth and vice versa. Finally, the model is well specified according to the specification tests²⁶.

Intermediate factors

Next, we have analysed different confounding and intermediate factors that may affect the relationship between freedom and participation rights and growth. We did this by adding covariates to our baseline model and then analysed how this affected the long-run relationship. Moreover, this served as a robustness check of our baseline model. We added five groups of covariates, as discussed in section 2: *Regime type (column 1 and 6), conflict (column 2 and 7), economic factors (column 3 and 8), institutional factors (column 4 and 9) and human development factors (column 5 and 10)*. The results are summarised in Table 5.1 and 5.2, where the baseline results from Table 4 are also displayed for reference²⁷.

²⁶ As a robustness check, we have estimated the baseline model, where we use the indicators of Civil liberties and Political rights from Freedom House instead of the empowerment index. The estimates when using these indicators also show a positive and significant long-run relationship. See Table A.2.1 and A.2.2 in annex 2 for results.

²⁷ As a robustness check, all estimations are done for different lag length of the empowerment index, see Annex 2, Table A.2.3 and Table A.2.4.

Table 5.1: The effect of freedom and participation rights on GDP per capita growth adding covariates (Fixed effects)

	Panel A: Within estimates					
	(Baseline)	(1)	(2)	(3)	(4)	(5)
Empowerment index	0.06 (0.07)	0.04 (0.07)	0.03 (0.07)	0.02 (0.09)	0.19** (0.08)	0.08 (0.08)
GDP per capita (lagged)	-1.79*** (0.61)	-1.95*** (0.62)	-2.04*** (0.58)	-2.47*** (0.92)	-0.88 (0.91)	-3.02*** (0.82)
Long-run effect of empowerment index	0.33** (2.39)	0.27** (2.03)	0.25* (1.89)	0.19 (1.41)	0.2 (1.18)	0.48*** (3.35)
Regime type		0.11** (0.04)	0.08 (0.05)	0.13 (0.1)	0.06 (0.05)	0.02 (0.04)
Conflict			-0.62** (0.30)			
Trade				0.03** (0.01)		
TFP				6.41*** (2.42)		
Investments				0.25*** (0.04)		
Unemployment				-0.08 (0.07)		
Rule of law					-0.88 (0.74)	
Government effectiveness					1.27** (0.64)	
Control of corruption					0.53 (0.63)	
Human capital						2.32* (1.27)
Life expectancy						0.12** (0.05)
N	2626	2567	2567	1392	2032	2193
Countries	148	145	145	97	145	121
Time periods	21	21	21	21	16	21

Note: The dependent variable is GDP per capita growth. All models include 2 lags of GDP per capita growth and 10 lags of the empowerment index. GDP per capita in levels is included as lag 10 according to the number of lags of the empowerment index. Number inside () are standard deviations except for long-run effects where numbers in () are z-values and *: $P < 0.1$, **: $P < 0.05$, ***: $P < 0.01$. N is the total number of observations.

Table 5.2: The effect of freedom and participation rights on GDP per capita growth adding covariates (GMM effects)

	Panel B: System-GMM estimates					
	(Baseline)	(6)	(7)	(8)	(9)	(10)
Empowerment index	0.41*** (0.10)	0.41*** (0.11)	0.37*** (0.08)	0.32*** (0.12)	0.40*** (0.11)	0.39*** (0.15)
GDP per capita (lagged)						-
	-1.26** (0.59)	-1.11* (0.59)	-0.86 (0.56)	-2.84*** (0.73)	-1.39** (0.68)	3.21*** (0.84)
Long-run effect of empowerment index	0.76*** (4.00)	0.79*** (3.34)	0.61** (2.12)	0.70** (2.37)	1.19*** (2.97)	0.81*** (4.73)
Regime type		-0.06 (0.09)	-0.09 (0.10)	-0.07 (0.22)	0.01 (0.10)	-0.12 (0.10)
Conflict			-1.04** (0.50)			
Trade				0 (0.02)		
TFP				34.15*** (4.62)		
Investments				0.36*** (0.06)		
Unemployment				-0.03 (0.09)		
Rule of law					0.45 (0.92)	
Government effectiveness					-0.45 (0.97)	
Control of corruption					1.35* (0.81)	
Human capital						2.01 (2.28)
Life expectancy						0.09 (0.15)
N	2626	2567	2567	1392	2032	2193
Countries	148	145	145	97	145	121
Time periods	21	21	21	21	16	21
AR2-test	-1.18	-1.11	-1.17	0.29	-0.60	-1.13
Instruments	154	175	156	139	153	157
Sargan test	141.68	139.42	123.46	83.12	120.66	111.21

Note: The dependent variable is GDP per capita growth. All models include 2 lags of GDP per capita growth and 10 lags of the empowerment index. GDP per capita in levels is included as lag 10 according to the number of lags of the empowerment index. Number inside () are standard deviations except for long-run effects where numbers in () are z-values and *: $P < 0.1$, **: $P < 0.05$, ***: $P < 0.01$. N is the total number of observations. The AR2-test denotes the test statistics of serial uncorrelated residuals of second order and the Sagan test denotes the test statistics for the test of overidentified restrictions.

First, we add an indicator of *regime type* that measures the degree of autocracy/democracy. As discussed in Section 2, regime type may both determine freedom and participation rights and also cause growth. Therefore, the underlying regime type in a country could possibly explain the estimated long-run effect in the baseline model. The estimates with regime type are summarised in column (1) of panel A and (6) of panel b in Table 5.1 and 5.2. Regime type is positive and significant in column (1) under the Within estimation, but negative and insignificant in column (6)

under System-GMM estimation²⁸. Interpreting the significant estimate, this implies that moving from autocracy to democracy has a positive effect on growth. This is in accordance with the findings of e.g. Acemoglu et al. (2014). The long-run effect of freedom and participation rights when accounting for regime type continues to be positive and significant. This implies that we cannot ascribe the positive and significant long-run effect in the baseline model to regime type - that is the long-run effect of freedom and participation rights on economic growth. As discussed in Section 1, freedom and participation rights has a broader perspective than just democratic rights and it seems therefore that other aspects of freedom and participation rights are also important for growth. Nonetheless, we keep regime type in the remaining models in order to make sure that we account for these underlying regime structures.

Moreover, we add *conflict* that measures the level of conflict in a country as this may affect the relationship between freedom and participation rights and growth, cf. Sano and Marslev (2016). The estimates are summarised in column (2) of panel A and (7) of panel B. The long-run estimates are more or less unaffected by the inclusion of conflict, implying that this is not an intermediate factor for the long-run relationship between freedom and participation rights and growth.

Third, we add *economic factors* as covariates to the model. The economic factors include trade, investments, total factor productivity (TFP) and unemployment. As discussed in section 1 and 2, freedom and participation rights may positively influence the economic factors which moreover contribute to growth. Thus, a part of the long-run effect from the baseline model may go through these intermediate economic factors. The estimates are summarised in column (3) of panel A and (8) of panel B in Table 5.1 and 5.2. The sign of economic factors are as expected: Trade, investment and TFP (total factor productivity) have a significant, positive effect on growth, whereas unemployment has a negative, but insignificant effect on growth. For the within estimates in column (3), the long-run effect remains positive, but is now insignificant. For the system GMM-estimates in column (8), the long-run effect remains both positive and significant. The fact that one of the long-run estimates is now insignificant indicates that the long-run effect of freedom and participation rights may be mediated through the economic factors²⁹. That being said the robustness of this result is questionable, as the result is

²⁸ Here it should be noted that there is limited variation for several countries in our sample, see Annex 0, A.0.2.

²⁹ To challenge the robustness of these conclusions, we have investigated this further by 1) making Granger causality test between the empowerment index and investment data and between the empowerment index and trade (it was not meaningful to do the same exercise for productivity and unemployment due to data scarcity). The analysis shows that the causality runs from the empowerment to the two economic factors, and not in the reverse direction; 2) Additionally we have made regressions estimating the effect of the empowerment index on respectively trade and investment, both with and without adding covariates. The effect was insignificant for trade for fixed effects estimation, but positive and significant for investment after 15 years. The latter supports our conclusions above - that investment can be seen as an intermediate factor between freedom and participation rights and economic growth. As far as

sensitive to the sample size³⁰, choice of lagged values of the empowerment index and the choice of estimation method. The estimations should be repeated when the data coverage of the economic factors is higher. However the result is in line with, although does not prove, the argumentation of Sen (1999) that emphasises the importance of civil and political rights in order to promote economic security and thereby the environment for investments and trade. Moreover, this is in accordance with the findings of Blume and Voigt (2007), according to whom freedom and participation rights positively affects productivity. To summarise, our estimations indicate that freedom and participation rights may positively affect investment, trade and productivity, which in turn all contribute to economic growth.

Fourth, we include *institutional factors* as covariates. The institutional factors are indicators of rule of law, government effectiveness and control of corruption. As discussed in Sections 1 and 2, there may be a positive link between freedom and participation rights and these factors which also may contribute to growth. Therefore, a part of the long-run effect from the baseline model may be affected by these intermediate institutional factors. The estimates are summarised in column (4) of panel A and (9) of panel B in Tables 5.1 and 5.2. The estimates of the institutional factors vary across the two models. Both estimates of rule of law are insignificant. Government effectiveness has a significant and positive effect on growth in column (4), but is insignificant in column (9). Control of corruption is insignificant in column (4), but has a positive and significant effect on growth in column (9). The signs of the significant estimates are as expected. For the Within estimates in column (4), the long-run effect remains positive, but is now insignificant. For the system GMM-estimates in column (9), the long-run effect remains both positive and significant. As with the economic factors, this indicates that the long-run effect of freedom and participation rights may be affected by the institutional factors³¹. While the result is sensitive to the sample size³², choice of lagged values of freedom and participation rights and the choice of estimation

trade is concerned it looks like this is less of an intermediate factor as the effect of the empowerment index stays positive and significant if we only control for trade in the regression. The estimates of the empowerment on the economic factors can be found in Annex 2, A.2.12-A.2.19.

³⁰ See Annex 2 Table A.2.5-A.2.8 for estimations done on fixed samples, for both Within and GMM estimations for both 10 and 15 lags.

³¹ To challenge the robustness of these conclusions, we have investigated this further by 1) making Granger causality test between the empowerment index and government effectiveness and between empowerment index and control of corruption, which shows that the causality is stronger from empowerment to the two institutional factors than the other way around; 2) Additionally we have made regressions estimating the effect of the empowerment index on respectively government effectiveness and control of corruption, both with and without covariates. The effect was positive and significant for respectively government effectiveness and control of corruption. This supports our conclusions above - that the institutional factors can be seen as an intermediate factor between freedom and participation rights and economic growth. The estimates can be found in Annex 2, A.2.20-A.2.27.

³² See Annex 2 Table A.2.5-A.2.8 for estimations done on fixed samples, for both Within and GMM estimations for both 10 and 15 lags.

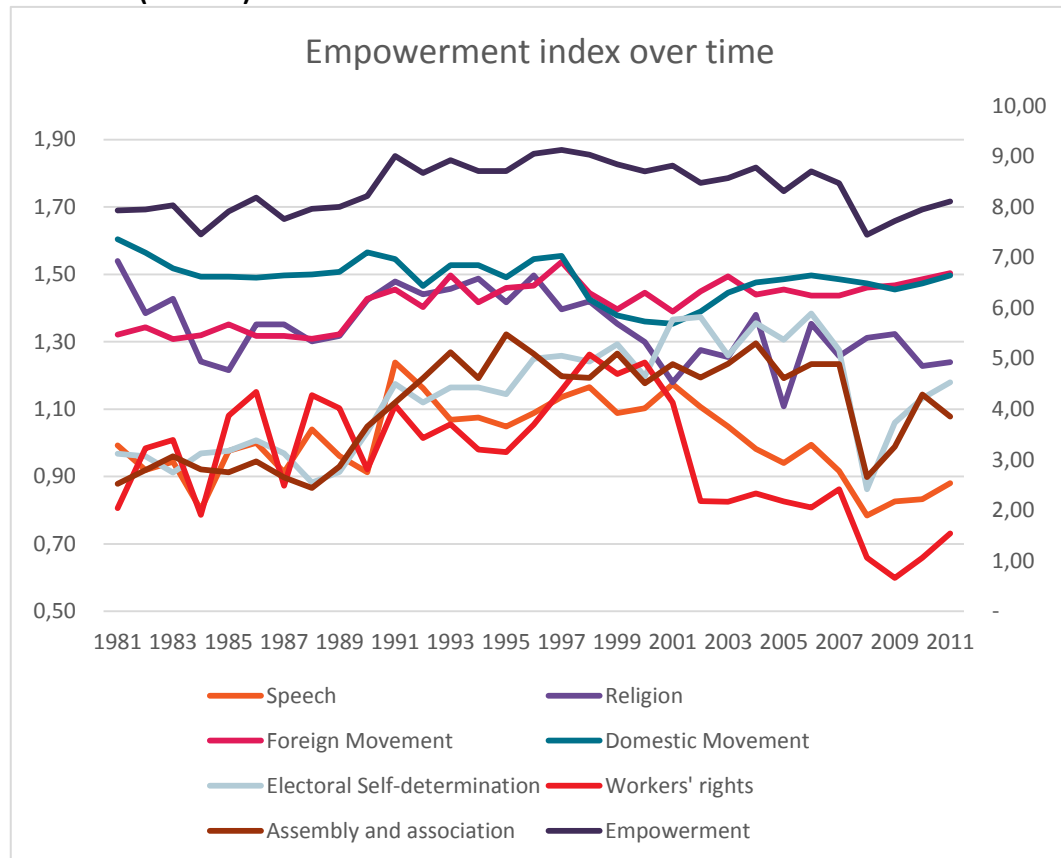
method; this result is in line with the hypotheses of Sano and Marslev (2016) that explored effective institutions and good governance as an intermediate pathway between freedom and participation rights and growth. Moreover, this is in line with, but again does not prove, McKay and Vizard's (2005) hypothesis, which emphasises the importance of freedom of information in relation to public accountability and efficiency. A further understanding of this relationship is an obvious choice for future research. To summarise, our estimations indicate that freedom and participation rights may be an important aspect of effective institutions and good governance that may promote economic growth.

Finally, we add *human development factors* as covariates. In particular, we include life expectancy and human capital as there may be a positive relationship between these factors, freedom and participation rights and growth. The estimates are summarised in column (5) of panel A and (10) of panel B in Table 5.1 and 5.2. The sign of the human development factors are as expected: both life expectancy and human capital have a positive effect on growth, but only significantly in column (5). The long-run effect of freedom and participation rights remains positive and significant, implying that the included human development factors do not serve as intermediate factors in the long-run relationship. This does not mean that the human development factors are not important for human rights in general as they may be important for other aspects than the rights reflected in the Empowerment Rights Index. Particularly, they may have significant importance for the relationship between economic, social and cultural rights and economic growth. This is, however, an area for future research.

Sub-indicators

We then examine which of the underlying sub-indicators of the empowerment index drive the estimated long-run relationship. Figure 3 shows the development of the different sub-indicators (values on the left axis) and the empowerment index (values on the right axis) on a global level.

Figure 3: The empowerment index (right axis) over time and decomposed into sub-indicators (left axis)



Note: The values of the seven sub-indices develop according to the left hand side axis, whereas the values of the overall Empowerment index develops according to the right hand side axis.

As Figure 3 shows, the sub-indicators affect the empowerment index in different directions. Those of freedom of foreign and domestic movement have little volatility and have on average been above 1.3. Workers' rights on the other hand has been quite volatile and below 1.3. This also shows the importance of investigating the drivers that result in a positive effect from freedom and participation rights on economic growth. We estimate our baseline model for each of the sub-indicators. Results are summarised in Table 6.

Table 6: The effect of the sub-indicators on GDP per capita growth

Panel A: Within estimates							
	Freedom of religion	Freedom of speech	Freedom of domestic movement	Freedom of foreign movement	Freedom of assembly and association	Electoral self-determination	Worker rights
Short-run effect	-0.56 (0.41)	-0.14 (0.22)	-0.37 (0.38)	-0.19 (0.38)	0.72*** (0.25)	0.46** (0.20)	-0.17 (0.19)
GDP per capita (lagged)	-4.22** (1.85)	-2.09*** (0.62)	-4.21** (1.72)	-4.25** (1.77)	-1.89*** (0.59)	-2.18*** (0.60)	- (0.61)
Long-run effect	-0.18 (2.30)	1.23** (2.06)	-0.47 (-0.75)	0.71 (1.09)	1.87*** (3.44)	2.39*** (4.77)	0.06 (0.12)
N	2942	2652	2977	2982	2644	2652	2647
Countries	165	148	165	165	148	148	148
Time periods	21	21	21	21	21	21	21

Note: The dependent variable is GDP per capita growth. All models include 2 lags of GDP per capita growth and 10 lags of the sub-indicator. GDP per capita in levels is included as lag 10 according to the number of lags of the sub-indicator. Number inside () are standard deviations except for long-run effects where numbers in () are z-values and *: $P < 0.1$, **: $P < 0.05$, ***: $P < 0.01$. N is the total number of observations. System-GMM estimates can be found in Annex 2 Table A.2.9.

The estimates in Table 6 show that freedom of speech, freedom of assembly and association and electoral self-determination each has a positive and significant long-run effect on growth, whereas the estimated long-run effect of the remaining sub-indicators is insignificant. This is further confirmed by estimating the model for different lag lengths of the sub-indicators (see Annex 2, Table A.2.10 and A.2.11). This is in line with both Sen (1999) and McKay and Vizard (2005) who particularly emphasise freedom of speech, right to information and electoral self-determination as important for economic development as these rights promote economic security and decreases market imperfections. The results further imply that a lack or deterioration of respect for these rights may be detrimental to economic growth.

Summary

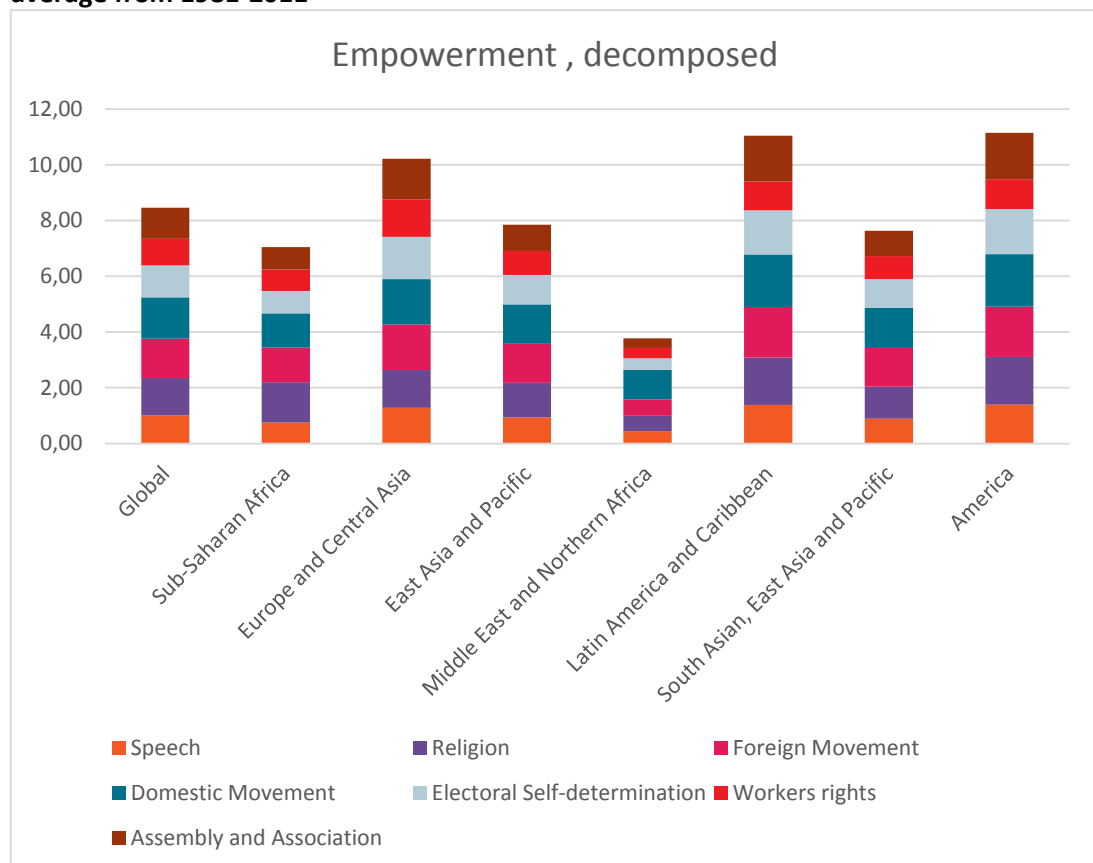
In summary, we find that permanent improvements in freedom and participation rights contribute positively to economic growth over the long run. This is mainly driven by the rights to freedom of speech, freedom of assembly and association and electoral self-determination. Moreover, our results provisionally indicate that economic and institutional factors may be intermediate factors of the long-run relationship. An interpretation of these results could be that strong freedom and participation rights motivate a country's population to contribute positively to the economy making them more productive as has been found and argued by Blanton and Blanton (2007a). Additionally, strong freedom and participation rights promote predictability, transparency and economic security that encourage trade and investment that furthermore contribute to growth (Blanton and Blanton, 2007a). Freedom and

participation rights may also enforce accountability and transparency of a government and thereby government effectiveness and control of corruption that form a basis for strong institutions which has also been shown to positively affect growth (Moral-Benito, 2009; Sano and Marslev, 2016). Moreover, the results imply that there might be a cost to inaction, since a deterioration of respect for these civil and political rights seems to be harmful for economic growth.

5.2.2 REGIONAL ANALYSIS

Our fourth question is whether the effect of freedom and participation rights on growth differs depending on which part of the world we look at. In Figure 4, the average values for each sub-indices and each region of our sample period are shown.

Figure 4: The empowerment index across regions and decomposed into sub-indicators, average from 1981-2011



As shown in the figure the composition of the empowerment index differs among the regions. Generally, the regions score above one on the freedom-of-movement-indices, the indices with the highest average score. In contrast, they generally score less than one in freedom speech and workers' rights. Moreover, there seems to be large variances in the scores of (freedom of) assembly and association and electoral self-determination across regions.

The regional effect of freedom and participation rights on growth

We formulated a regional model to determine whether the effect of freedom and participation rights on growth differs from region to region. In this instance, we used our baseline model in a regional setting in accordance with Model (3) in Section 3, where we included regional dummies and interaction terms, as explained in Section 3.3. We account for the development in the empowerment index over the past 10 years and we estimated both the short- and long-run effect, but again our focus was the long-run effect. The long-run effects are now based on the interaction terms. We estimated the model using the Within estimation technique³³, cf. Section 4. Results are summarised in Table 7.

Table 7: The regional effect of freedom and participation rights on GDP per capita growth

	Panel A: Within estimates						
	Sub-Saharan Africa	Europe and Central Asia	East Asia and Pacific	Middle East and Northern Africa	Latin America and Caribbean	South Asian, East Asia and Pacific	America
Short-run effect	-0.13 (0.09)	0.12 (0.08)	0.12 (0.08)	0.07 (0.08)	0.08 (0.09)	0,14 (0.08)	0.08 (0.09)
Regional Short-run effect	0.52*** (0.14)	-0.16 (0.20)	-0.41* (0.22)	-0.06 (0.35)	-0.04 (0.15)	-0.36** (0.18)	-0.05 (0.15)
GDP per capita (lagged)	-1.85*** (0.62)	-1.66*** (0.60)	-1.90*** (0.64)	-4.25** (1.77)	-1.79*** (0.63)	-1,84*** (0.63)	-1.80*** (0.63)
Long-run effect of region	0.34*** (2.74)	1,40*** (3.92)	0.59* (1.74)	0.71 (1.09)	-0.39 (-1.49)	0.15 (0.46)	-0.39 (-1.47)
N	2626	2626	2626	2626	2626	2626	2626
Countries	148	148	148	148	148	148	148
Time periods	21	21	21	21	21	21	21

*Note: The dependent variable is GDP per capita growth. All models include 2 lags of GDP per capita growth and 10 lags of the empowerment index. GDP per capita in levels is included as lag 10 according to the number of lags of the empowerment index. Number inside () are standard deviations except for long-run effects where numbers in () are z-values and *: $P < 0.1$, **: $P < 0.05$, ***: $P < 0.01$. N is the total number of observations.*

³³ The GMM-estimates can be found in Annex 3, Table A.3.1.

As shown in Table 7, the long-run effect of freedom and participation rights on growth is positive and significant for Sub-Saharan Africa, Europe and Central Asia^{34 35}, and East Asia and Pacific—the latter only at a 10% level. The table also shows that there is no significant long-run relationship between freedom and participation rights and growth in Middle East and Northern Africa, Latin America and the Caribbean, South and East Asia and Pacific and the Americas. The ‘initial’ level of GDP per capita is significant and negative as expected for all regions – the lower GDP per capita, the higher growth and vice versa.

Thus, the long-run relationship varies a lot across the regions. The presence of freedom and participation rights either promotes or has no effect on growth. However, we find no evidence of freedom and participation rights harming growth (i.e. a significant negative relationship), as stated by the Lee thesis. We further examine the regions with a significant relationship in the remaining sections. In particular, we examine the underlying characteristics in the specific regions that imply a positive long-run relationship between freedom and participation rights and economic growth. However, more detailed country studies must be pursued in further research to solidify this claim.

Intermediate factors in Sub-Saharan Africa and Europe and Central Asia

Since we only find a significant relationship in Sub-Saharan Africa and Europe and Central Asia these will be our focus below. We also find a significant relationship in East Asia and Pacific, but the significance of freedom and participation rights disappears as soon as we add regime type. This implies that the underlying regime type of the countries in this region fully explains the effect of freedom and participation rights in our baseline model (Table 7). Therefore, we only display East Asia and Pacific in Annex 3³⁶.

As for the global model, we examine the possible intermediate factors through which freedom and participation rights may affect growth. Again, we add five groups of covariates: *Regime type (column 1)*, *conflict (column 2)*, *economic factors (column 3)*, *institutional factors (column 4)* and *human development factors (column 5)*. This time we only present the Within estimates³⁷. The estimates for Sub-Saharan Africa are summarised in Table 8.1 and the estimates for Europe and Central Asia are summarised

³⁴ Notice that the countries of Sub-Saharan Africa and Europe and Central Asia make up more than 50% of our sample; therefore our global results are driven by these regions.

³⁵ Furthermore, for Sub-Saharan Africa, we have controlled for OPEC countries in the regions. No significant effect of the empowerment index was found for the OPEC countries, which shows that the non-OPEC countries are the main drivers behind the positive long-run relation in this model, see Annex 3, Table A.3.13 for results. For Europe and Central Asia, we have controlled for former Soviet countries. No significant effect of the empowerment index was found for the former Soviet countries, which shows that the non-Soviet countries are the main drivers behind the positive long-run relation in this region, see Annex 3, Table A.3.14 for results. We intend to investigate this further in future studies.

³⁶ Instead the estimates can be found in Annex 3, Table A.3.2.

³⁷ The GMM estimates can be found in Annex 3, A.3.3 and A.3.4.

in Table 8.2. The baseline results from Table 7 are also displayed for reference in both tables.

Table 8.1: The effect of freedom and participation rights on GDP per capita growth adding covariates, Sub-Saharan Africa region

	Sub-Saharan Africa					
	(Baseline)	(1)	(2)	(3)	(4)	(5)
Empowerment index	-0.13 (0.09)	-0.16* (0.09)	-0.17* (0.09)	-0.11 (0.09)	0.02 (0.09)	-0.07 (0.10)
Regional Empowerment index effect	0.52*** (0.14)	0.53*** (0.14)	0.53*** (0.15)	0.53*** (0.14)	0.45*** (0.17)	0.44*** (0.15)
GDP per capita (lagged)	-1.85*** (0.62)	-2.01*** (0.63)	-2.12*** (0.60)	-2.03*** (0.64)	-0.95 (0.89)	-3.16*** (0.83)
Long-run effect of empowerment index	0.34*** (2.74)	0.28** (2.49)	0.23** (2.22)	0.37*** (3.22)	0.01 (0.05)	0.40*** (3.41)
Regime type		0.11** (0.04)	0.07 (0.05)	0.07 (0.04)	0.06 (0.05)	0.02 (0.04)
Conflict			-0.64** (0.31)			
Trade				0.02** (0.01)		
TFP						
Investments				0.15*** (0.03)		
Unemployment						
Rule of law					-0.74 (0.76)	
Government effectiveness					1.33** (0.63)	
Control of corruption					0.48 (0.64)	
Human capital						2.62** (1.31)
Life expectancy						0.11** (0.05)
N	2626	2567	2567	2388	2032	2193
Countries	148	145	145	137	145	121
Time period	21	21	21	21	16	21

Note: The dependent variable is GDP per capita growth. All models include 2 lags of GDP per capita growth and 10 lags of the empowerment index. GDP per capita in levels is included as lag 10 according to the number of lags of the empowerment index. Number inside () are standard deviations except for long-run effects where numbers in () are z-values and *: $P < 0.1$, **: $P < 0.05$, ***: $P < 0.01$. N is the total number of observations.

Table 8.2: The effect of freedom and participation rights on GDP per capita growth adding covariates, Europe and Central Asia region

	Europe and Central Asia					
	(Baseline)	(1)	(2)	(3)	(4)	(5)
Empowerment index	0.12 (0.08)	0.09 (0.08)	0.08 (0.08)	-0.04 (0.11)	0.17* (0.09)	0.14* (0.08)
Regional Empowerment index effect	-0.16 (0.20)	-0.13 (0.20)	-0.11 (0.20)	0.28 (0.20)	0.18 (0.2)	-0.14 (0.22)
GDP per capita (lagged)	-1.66*** (0.60)	-1.83*** (0.61)	-1.92*** (0.57)	-2.43*** (0.90)	-0.82 (0.89)	-2.96*** (0.80)
Long-run effect of empowerment index	1.40*** (3.92)	1.36*** (3.78)	1.41*** (3.94)	0.68** (2.20)	1.18*** (3.24)	1.51*** (4.89)
Regime type		0.12*** (0.04)	0.08* (0.05)	0.16 (0.10)	0.07 (0.05)	0.03 (0.04)
Conflict			-0.65** (0.30)			
Trade				0.03*** (0.01)		
TFP				6.27*** (2.29)		
Investments				0.24*** (0.04)		
Unemployment				-0.09 (0.07)		
Rule of law					-0.69 (0.75)	
Government effectiveness					1.17* (0.63)	
Control of corruption					0.66 (0.65)	
Human capital						2.38* (1.29)
Life expectancy						0.12** (0.06)
N	2626	2567	2567	1392	2032	2193
Countries	148	145	145	97	145	121
Time period	21	21	21	21	16	21

Note: The dependent variable is GDP per capita growth. All models include 2 lags of GDP per capita growth and 10 lags of the empowerment index. GDP per capita in levels is included as lag 10 according to the number of lags of the empowerment index. Number inside () are standard deviations except for long-run effects where numbers in () are z-values and *: $P < 0:1$, **: $P < 0:05$, ***: $P < 0:01$. N is the total number of observations.

First, we add *regime type*. The estimates are presented in column (1) in Tables 8.1 and 8.2. We find that regime type is positive and significant in Sub-Saharan Africa and Europe and Central Asia. Moreover, including regime type does not remove the direct

effect of freedom and participation rights on economic growth in the long run as this continues to be positive and significant. However, we keep regime type in the remaining models to make sure that we account for the importance of moving from one level of democracy/autocracy to another.

Second, we add conflict with estimates in column (2). As with the global model, this does not affect the long-run estimates, implying that this is not an intermediate factor of the long-run relationship between freedom and participation rights and growth.

Third, we add *economic factors* as covariates to the model. The estimates are summarised in column (3) in Table 8.1 and 8.2. Due to data scarcity in Sub-Saharan Africa, it is not possible to account for total factor productivity and unemployment. The sign of economic factors are as expected: trade, investment and TFP (total factor productivity) has a significant, positive effect on growth; whereas unemployment has a negative, but insignificant effect on growth. For both regions, the long-run effect remains positive and significant. Interestingly, the estimates diverge for the two regions. For Sub-Saharan Africa, the long-run effect is stronger when we include the economic factors, implying that these do not serve as intermediate factors for this region. The opposite is the case for Europe and Central Asia, where the long-run effect weakens when the economic factors are included, implying that the long-run effect of freedom and participation rights may go through the included economic factors³⁸. Our findings regarding the economic factors in the global analysis thus seem to be mainly driven by countries in Europe and Central Asia³⁹. However the robustness of the results are sensitive to the sample size⁴⁰, choice of lagged values of the empowerment index and the choice of estimation method. The estimations should be repeated, when the data coverage of the economic factors is higher, and the conclusions would benefit from a further country study examination.

Third, we include *institutional factors* as covariates. The estimates are summarised in column (4) in Table 8.1 and 8.2. For both regions, rule of law and control of corruption have an insignificant impact on economic growth, whereas government effectiveness has a significant and positive effect on growth. The long-run effect of both regions weakens when the institutional factors are included. It remains positive and significant for Europe and Central Asia, whereas it turns insignificant for Sub-Saharan Africa.

³⁸ This is also true when only trade and investment are included – as in the Sub-Saharan Africa model.

³⁹ These results are supported when we estimated the direct effect of the empowerment index on investment. This effect is highly significant and positive for fixed effect estimation in Europe and Central Asia, but insignificant when it comes to the Sub-Saharan countries. The effect of the empowerment index on trade is insignificant for fixed effect estimation in both regions. See Annex 3, A.3.15-A.3.18 for Sub-Saharan Africa and A.3.19-A.3.22 for Europe and Central Asia. It was not possible to do the same exercise for productivity due to data scarcity.

⁴⁰ See Annex 2 Table A.3.5-A.3.12 for estimations done on fixed samples, for both Within and GMM estimations and for 10 and 15 lags for both regions.

Thereby, we again find that the long-run effect of freedom and participation rights may go through the institutional factors, but where freedom and participation rights still has a direct influence on growth in Europe and Central Asia, this does not seem to be the case in Sub-Saharan Africa. Thus, our findings regarding the institutional factors in the global analysis seem to be mainly driven by the large number of countries in Sub-Saharan Africa in our sample⁴¹. Again, these results are sensitive to the sample size⁴², choice of lagged values of freedom and participation rights and the choice of estimation method, and we would recommend future country studies seek further insight into the interlinkages.

Fourth, we add *human development factors* as covariates. The estimates are summarised in column (5) in Tables 8.1 and 8.2. The sign of the human development factors are as expected as both life expectancy and human capital have a positive and significant effect on growth. The long-run effect of freedom and participation rights remains positive and significant for both regions, implying that the included human development factors do not serve as intermediate factors in the long-run relationship between freedom and participation rights and economic growth.

Sub-indicators in Sub-Saharan Africa and Europe and Central Asia

Finally, we want to examine whether the underlying drivers, i.e. the sub-indicators, of the significant (and positive) relationships between freedom and participation rights and economic growth differ in the two regions. The seven sub-indicators are presented in Table 9.

⁴¹ These results are supported when we estimated the direct effect of the empowerment index on government effectiveness. This effect is general significant and positive for estimation methods in Sub-Saharan Africa, but not in Europe and Central Asia. The effect of the empowerment index on control of corruption is insignificant for fixed effect estimation in both regions. See Annex 3, A.3.23-A.3.26 for Sub-Saharan Africa and A.3.27-A.3.30 for Europe and Central Asia.

⁴² See Annex 3 Table A.3.5-A.3.12 for estimations done on fixed samples, for both Within and GMM estimations and for 10 and 15 lags for both regions.

Table 9: The long-run effect of the sub-indicators on GDP per capita growth in each region

	Panel A: Within estimates						
	Freedom of religion	Freedom of speech	Freedom of domestic movement	Freedom of foreign movement	Freedom of assembly and association	Electoral self-determination	Worker rights
Sub-Saharan Africa	-0.41 (-0.40)	0.97 (1.12)	-0.76 (-1.36)	0.16 (0.25)	2.14*** (3.46)	2.42*** (5.33)	-0.37 (-0.44)
Europe and Central Asia	0.48 (0.36)	1.87 (1.48)	2.17 (0.99)	2.14 (1.32)	4.99*** (5.38)	8.41*** (5.38)	2.5 (1.59)

*Note: The dependent variable is GDP per capita growth. All models include 2 lags of GDP per capita growth and 10 lags of the sub-indicator. GDP per capita in levels is included as lag 10 according to the number of lags of the sub-indicator. Number inside () are standard deviations except for long-run effects where numbers in () are z-values and *: $P < 0.1$, **: $P < 0.05$, ***: $P < 0.01$. N is the total number of observations. The AR2-test denotes the test statistics of serial uncorrelated residuals of second order and the Sagan test denotes the test statistics for the test of over-identified restrictions.*

For Sub-Saharan Africa and Europe and Central Asia, the drivers of the long-run relationship are freedoms of assembly and association and electoral self-determination. These sub-indicators are closely related to democratic institutions and these findings thereby support the growing literature on how democracy is a driver for economic growth (Acemoglu et al., 2014).

Summary

The realization of freedom and participation rights has a positive long-run effect on economic growth in Sub-Saharan Africa, Europe and Central Asia and East Asia and Pacific. Concerning the latter region (EAP), the effect vanishes, when regime type is included. Moreover, there is no significant long-run relationship in the Middle East and Northern Africa, Americas and South Asia. Thereby, we find no evidence that freedom and participation rights is harmful for growth: it either promotes growth or has no effect on growth.

We find the data indicate that different structures are important for the relation between freedom and participation rights and growth in the different regions. For Sub-Saharan Africa, we find some indication of government effectiveness as an intermediate factor between human rights and growth: strong freedom and participation rights promote accountability and transparency of a government and thereby government effectiveness forms a basis for strong institutions that in turn affect the economic situation of a country. For Europe and Central Asia, we find indications that freedom and participation rights affects economic growth positively both directly and indirectly through economic factors and to a lesser degree through institutional factors. The

results concerning economic and institutional factors as intermediate factors would benefit from a deeper country study analysis, if we are to understand these interlinkages more in depth. For both Sub-Saharan Africa and Europe, the underlying rights that seem to drive a positive long-run relation between freedom and participation rights and growth are freedom of assembly and association and electoral self-determination, which can be seen as an extension of or a support to the growing literature on democracy as a determinant of economic growth (Acemoglu et al., 2014; Papaioannou and Siourounis, 2008). Country studies that further investigate these findings would be an obvious choice for future research.

6 CONCLUSION

In this study, we have tried to answer the following questions:

- 1) Can a causal relation between economic growth and freedom and participation rights be documented empirically?
- 2) Can freedom and participation rights contribute positively to economic growth or does a trade-off exist between the two?
- 3) Does the effect of freedom and participation rights on growth affect some intermediate factors which in turn affect economic growth?
- 4) Does the effect of freedom and participation rights on growth differ depending on which region of the world one is looking at?

In order to answer these questions, we have made use of econometric methods. First, we examined the direction of causality between freedom and participation rights and economic growth by means of a Granger causality test. Next, we formulated a global panel data model in order to estimate the long-run relationship between freedom and participation rights and economic growth. Furthermore, we examined whether this relationship differs across regions.

Can a causal relation between economic growth and freedom and participation rights be documented empirically? Our analysis shows that the direction of causality is strongest from freedom and participation rights to economic growth rather than in the opposite direction. The causality only exists when accounting for the past development of freedom and participation rights, i.e. the rights inherent in the Empowerment Rights Index cause growth in a long-run perspective. Moreover, when looking at the sub-indicators, the causality is also strongest from the individual rights to growth. This gives an indicative answer to our first question – freedom and participation rights seems to affect growth positively. Our initial reflections indicated a likely explanation, namely that freedom and participation rights would further accountability of power which in turn would enhance predictability and trust, and through these, positive social achievements and economic growth. Our analysis has not underpinned these hypothetical statements in any detail, but the analysis has confirmed that it is worth pursuing such potential explanations analytically.

Can freedom and participation rights contribute positively to economic growth or does a trade-off exist between the two? The analysis shows that the strengthening of freedoms and the right to participate can actually be the 'smart thing to do' as we find a positive long-run effect on economic growth at the macroeconomic level. The main drivers are freedom of speech, freedom of assembly and association, and electoral self-determination. These rights dimensions are also those, which may contribute to promoting the accountability of power holders. At a macroeconomic level, therefore, we find no evidence of a trade-off between freedom and participation rights and economic growth. Instead, freedom and participation rights seem to contribute positively to growth over the long run (question 2). Thereby there might be an actual cost to inaction,

since a lack of or a deterioration in the status of these civil and political rights may be detrimental to economic growth.

Does the effect of freedom and participation rights on growth affect some intermediate factors which in turn affect economic growth? Answering this question, we find weak indications that economic factors such as trade, investment, productivity and employment might be intermediate factors of the long-run relationship. A population that feels empowered by the freedom of speech, freedoms to assemble and to associate and by electoral self-determination may be more productive and motivated to contribute positively to the economy. Additionally, strong freedom and participation rights may promote predictability and transparency that encourage trade and investment that furthermore contribute to growth. Moreover, we find some indications that government effectiveness and control of corruption are possible intermediate factors. Freedom and participation rights such as freedom of speech, freedom of assembly and association, and electoral self-determination may also enforce accountability and transparency of a government and thereby government effectiveness and control of corruption that form a basis for strong institutions, which has also been shown to affect growth positively. This answers our third question, as we find a hint of indications that the causal relation between freedom and participation rights and growth partly runs indirectly through economic and institutional factors, but these results could benefit from a further country study analysis, to understand the interlinkages more in depth. On the other hand we control for the effect of regime type, conflict, education and health. We find that though these covariates might have an impact on economic growth, they do not serve as intermediate factors, as they do not influence the result of freedom and participation rights on economic growth.

Does the effect of freedom and participation rights on growth differ depending on which region of the world one is looking at? The analysis shows that the long-run relationship differs significantly across regions. A positive long-run relationship exists between freedom and participation rights and economic growth in Sub-Saharan Africa and Europe and Central Asia, mainly driven by non-OPEC countries in Sub-Saharan Africa and non-former Soviet countries in Europe and Central Asia. A weak relationship, however, prevails in East Asia and Pacific that seems to be caused by the regime type of the countries of the region. In this regard it is important to note that observations in Sub-Saharan Africa and Europe and Central Asia together make up more than 50% of our total sample, and thereby dominate our global model. For Sub-Saharan Africa, we find that freedom of assembly and association and self-electoral determination are the main drivers. Moreover, we find some indications of government effectiveness as an intermediate factor of the long-run relationship. Hence, freedom of assembly and self-electoral determination may enforce government effectiveness that moreover may contribute to economic growth. For Europe and Central Asia, we find the same drivers, but different intermediate factors. Here, it seems that freedom of assembly and association and self-electoral determination might promote economic factors such as trade, investment and productivity that all contribute to economic growth. This answers our fourth question: the effect of freedom and participation rights on growth does indeed differ across regions. We find no relationship between freedom and participation

rights and growth when looking at the Middle East and Northern Africa, South Asia and the Americas.

It is recognized in the analysis that the data used are based on a narrow three-level assessment of respect for human rights and that the data can be biased due to the fact that they are based on expert assessment from two sources of the human rights situation in the respective countries. This notwithstanding, it seems necessary to further explore the conclusions of the Working Paper in more detailed (country) case studies.

6.1 SUBJECTS FOR FURTHER RESEARCH

As mentioned in the introduction, this analysis is a follow-up study on the working paper written by Sano and Marslev (2016). In this paper we have empirically examined the link between freedom and participation rights (measured by the CIRI Empowerment index) and economic growth, and among others whether effective institutions act as an intermediate factor. An obvious choice for further research would be to focus on other aspects of human rights and investigate some of the other pathways through which Sano and Marslev argue that human rights may affect economic growth: 1) reduced economic inequality, 2) Human development and 3) the absence of conflict and political instability. This could for example materialize in a study on the interlinkage between economic inequality and human rights standards or the practice of equality and non-discrimination, or an analysis on the connections between human rights, human development and economic growth. Since different types of human rights may be important for each of the pathways the relevant human rights measures are likely to differ depending on the choice of analysis. Further investigation on appropriate human rights measures is thereby highly needed.

Moreover, another area for future research is to use cross-country or within-country variation to shed more light on how the components of the empowerment index or other human rights-related measures change economic incentives and organizations. Such case studies might identify what aspects of human rights are more important for economic success in context, and answer why we find freedom of assembly and association and electoral self-determination to be the main drivers of a positive relationship between rights and growth, and not workers' rights and freedom of movement. It might also extend our understanding of why we find no relation between rights and economic growth in Middle East and Northern Africa, South Asia and the Americas. Moreover, the human rights relationship to other economic measures, such as economic redistribution, is another possible interesting extension to this analysis - together with a deeper understanding of the cost of inaction.

Finally, we find that engaging in civil and political rights may actually be beneficial from a macroeconomic view. This might also have implications on a microeconomic level, as there might be a 'business case' for human rights, if human rights can be seen as the smart thing from a corporate perspective. This has likewise been noted by Blanton and Blanton (2007a, 2007b), who have found that economic factors such as trade and investment might act as transmission channels between human rights and economic growth. Thereby, human rights might be a source of competitive advantage for firms

that can in turn lead to enhanced profitability. This is another interesting area for future research, and will further add to the understanding of how human rights can affect the economy on both a macro- and a microeconomic level.

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