

1 Introduction

Economic Growth has been widely debated in terms of institutions. According to Acemoglu & Robinson (2005), political institutions play an important role in explaining the various steps towards development across countries. Still, the institutions are associated to the different histories and the idiosyncrasies of nations. In light of this, the better the institutions are the stronger will be the guarantees on property rights, prompting more investments once the legal security is well-established.

There are four preponderant factors which help to explain the differences in income and the development stages among countries: culture, geography, history and institutions. (ACEMOGLU D. , 2008).

Federal Constitutions are the key for social and economic development all over the world. Shocks in the political scenario which can lead to constitutional changes are crucial factors to give rise to institutional reforms, nonetheless, they are not the unique responsible. The design and the structure of the texts also account for solving the development puzzle. (ELKINS, GINSBURG, & MELTON, 2009)

There is a plethora of works trying to solve the direction of the relation between democracy and economic growth, although there is no consensus yet. Likewise, the impact of the duration of Federal Constitutions on economic growth was explored by Elkins, Ginsburg and Melton (2009) who found no linearity in this relation, whose assumption was tested in this paper.

On one hand, there are constitutions with long duration, such as the United States', which is the same since 1789. On the other hand, there are several countries which had different Charters throughout their history. Political scientists normally take the constitutions and their design variables into consideration in order to explain various economic results, as well as the stability of the texts and of the democracy. It turns out that the constitutional stability varies according to the time and to the nations idiosyncrasies. The present work tested the influence of the duration of constitutional letters on the level of income per capita of countries.

Negretto (2008) examined the duration of constitutions from 18 Latin America countries, demonstrating that institutions that prevent concentration of power in the hands of a few and that protect the constitutional laws help to avoid constant change in these Charters. Besides this, the author found that these countries tend to have less durable Constitutional Letters.

For the purposes of this work, constitutional laws are considered only the written texts. It is known that there are some nations without written Constitutions, such as the United Kingdom, Saudi Arabia, New Zealand, Israel, which were removed from the sample. The authors used data from Comparative Constitutional Project – CCP, from Polity IV, Penn World Table, and other data collected by SOUZA JÚNIOR (2013).

1.1 The Constitutions

The Federal Constitutions beacon the rule of law followed by the Constitutional Powers, the States, societies, as well as economic and social spheres. Thus, changes in laws can lead to changes in institutions, so that the more the laws vary the more instable the juridical order becomes. It is to say that the *de jure* and *the facto* political institutions are direct and indirectly affected by shifts in the constitutional order. Hence, the countries economic growth will also be modified, in consonance with the new economic institutions.

This work sheds light on the changes in laws stemming from the Originary Constituent Power, that is only new Constitutions; emends and other kind of changes in the texts were not analyzed here. Legally, Constitutions can be changed *via* amendment, new interpretations dictated by Direct Action of Unconstitutionality, among others.

The stability of national constitutions is of the utmost importance for social scientists and is extremely difficult to measure. The life span of these Charters can be influenced by plenty of events. As reported by Negretto (2008), the latter are not that conspicuous; therefore, the researchers have to delve into the peculiarities of each event so that they can speculate about their relationships with the duration of the Letters.

The data provided by CPP reveal that as the modern States emerged, written Constitutions started to be drafted. At the turn of the 18th century, the new States founded in Latin America took for granted the establishment of new Constitutional Charters, following the path set by the United States and France¹. Fifty percent of the States formed before 1789 remained at least 300 years without formal constitutions, not to mention that these nations took 29 years (after the French Revolution) to elaborate their first written constitutional documents. The majority of the States that arose after 1789 witnessed a very nearly coincidence between the appearance of the States and the respective creations of Constitutional Letters.

¹ Poland also pioneered the adoption of written Constitution.

Non constitutional documents can play the role of constitutional texts being considered part of the latter. Some countries such as the United States and New Zealand adopt these kind of rules. In the United Kingdom, for instance, political practices may evolve and be accepted as constitutional norms, although they never get codified. They are the so-called constitutional conventions or unwritten constitutional laws.

Sandalcilar (2013) points out that there is a relation between political regime and economic growth, however the direction is inconclusive so far. That is, it is not totally clear whether democratic regimes promote or prevent economic growth. The author explains that the theory is still fragile due to the fact that the correlations are assessed among groups of nations with diverse histories and institutions. Furthermore, the period of time required to analyse this relation can vary from country to country, making the conclusions more vulnerable. (ACEMOGLU & ROBINSON, 2009)

Along the same vein, the economic freedom interferes in a positive fashion in the economic growth of countries since it promotes productive activities and incite the investments in the private sector. Despite the lack of freedom and absence of civil and political rights guarantees, one can observe that authoritarian regimes also experience economic growth. What is pacific among scholars is the fact that political instability tend to lead to uncertain and risky future economic policies. (SANDALCILAR, 2013)

It is worth noting that political and economic stability may be found in totalitarian regimes too, however the authoritarian rulers tend to promote fruitless spends, for instance military expenditure are more common in these kind of regimes when compared to well-established democracies. (DOĞAN, 2005)

Bhagwati (2002) asseverates that both democracies and totalitarian regimes may have satisfactory level of savings. Additionally, the investment rates vary among economies, so that the difference is explained by the political scenarios which influence the gross fixed capital formation of each country. The latter will increase depending on the free access to information and on the protection of property rights, which safeguard the investors against illegal and unexpected expropriations. Therefore, notwithstanding the fact that democratic regimes may not directly contribute to economic growth, they do so in a indirect manner. By contrast, authocratic States create obstacles to growth in as much as political instability and insecurity emanate in totalitarian States.

1.2 Constitutional Duration

Some Constitutions last longer than others and it is quite difficult to measure their durability. There need to be changes accompanying social, technological, economic and

political innovations faced by the States. The Charters can be subject to amendments or be completely replaced by a new document. The latter change may signal a regime transition and can arise with little change in content. Therefore, the emergence of new constitutional letters consist in constitutional discontinuation. (NEGRETTO, 2008)

For purposes of this work, the duration of constitutional documents are the lapse of time between the date of entry into force of the precedent document and the day new one entries into force. The larger this period, the more stable the Constitution is. Elkins, Ginsburg and Melton (2009) state that, on one hand, the documents that do not follow historical, social, institutional and exogenous technological events are more likely to be substituted. On the other hand, as time goes by, the constitutions pervade the cultures, which increase their consensual use as well as their *erga omnes* characteristic.

Do the different durations constitutions affect the economic growth of countries?

1.3 Endogeneity

Acemoglu, Johnson and Robinson (2005) discuss in detail the circumstances in which the institutions are chosen, as well as how the mechanisms of political institutions and distribution of resources influence the economy. According to the authors, political institutions determine the formal political power in the society (*de jure*); whilst distribution of resources influence the allocation of the effective political power (*de facto*). These two sources of political power affect the choices regarding economic institutions and the evolution of the forthcoming political institutions. Although the economic institutions are the fundamental determinants of economic performance, they are endogenous and are built by the political institutions and by the distribution of resources in the economy.

When it comes to parsing institutions and income per capita, the main challenge is the endogeneity caused by the abovementioned simultaneity problem, which leads to simultaneity bias in the regression model. The latter occurs when an explanatory variable is determined in conjunction with the explained variable. Overall, the richest countries manage to maintain more stable and stronger institutions. That is, it is required to throw light on the reverse causality problem in this issue.

Furthermore, the endogeneity can also be caused by i) ommitted variables since there is a bulk of factors that may explain the economic growth and that cannot be taken into consideration in the econometric regression, overestimating (bias) the effects of the institutions on income per capita. ii) Difficulty in finding resources of simultaneous and independent exogenous variations, which allow the usage of more than one indicator of institutions quality as explanatory variables for the income of countries. iii) Measurement

error, since the variables used to measure the institutions are proxies chosen under some degree of subjectivity which can show measurement errors accordingly.

A common limitation of the studies of institutions is the difficulty to find good proxy variables able to fairly reflect the meaning of institutions and, at the same time, comprehend a broad number of nations, as well as over a long period of time.

In light of the abovementioned, treating endogeneity is imperative for more accurate econometric results. Likewise, the basic tools used to study the determinants of institutions are the panel data models estimated *via* Generalized Method of Moments (GMM) in differences, the so-called GMM-DIF, based on Arellano and Bond (1991). A hypothesis of predetermined instrument variables was made, in line with the assumption that observations with additional lags are uncorrelated with the error of the current period.

2 Data base

This article used the following criteria to choose the data base in accordance with the work of Souza Júnior (2013):

- Data reliability: only data source already tested and used in other works.
- Geographical coverage: the author selected data representative of the whole world so that to try to mitigate cross-section inconsistency which are inherent to this kind of qualitative research.
- Comprehensiveness of time: its was used longer time series in order to minimize problems of time-inconsistency in the estimatives.
- Avoiding coincidence in sources: primary and secondary sources.

2.1 Political institutions: democracy, freedom and participation in policy (1980-2010)

When it comes to political institutions, what researchers try to measure is the quality of democracy, including the guarantees related to the freedom of speech and of assembly.

In terms of political institutions, countries can be considered developed if there is no concentration of power in the hands of a few and if the citizens can have free access to information, as well as be able to challenge existing policies, without resorting to armed uprisings or any act of revolution.

It is important to keep in mind that there are countries where the *de jure* political power is democratic, yet the *de facto* is precarious. Souza Júnior (2013) built an indicator capable of dealing with this puzzle. That is, the author took into

consideration the quality of institutions referring not only to the presence of the universal suffrage, but also to many others.

2.2 Source of data for political institutions

In Souza Júnior (2013), the data were carefully explained along with their sources, which are summarized as follows.

- i) FIW – Freedom in the World (from Freedom House)²: Indicator used was political rights: quality of electoral process, pluralism, participation of opposition and minority on electoral and government affairs.
- ii) FRP – Freedom of the Press (from Freedom House): Indicator used was freedom of the press, which means the freedom of express opinions as well as search, receive and spread information and ideas using any media.
- iii) PIV – Polity IV Project: Indicators used were: elections for Executive Power (EXREC); limitations to chiefs of Executive Power (EXCONST); regulation on political competitiveness and participation of oppositions (POLCOMP).

These variables receive different punctuations ranging from 1 to 10, that is the bigger the mark the better the quality of the indicator respected to country/year is. Nonetheless, the maximum marks are not the same, for instance, EXREC:8; EXCONST: 7; POLCOMP: 10 and a ponderation is made.

- iv) CIRI – Cingranelli Richards Human Rights: Indicator used were: freedom of assembly and association; freedom of speech; electoral self-determination.

2.3 Source of data for economic institutions

- i) Political Risk Services (PRS): Indicators used were: investment profile; law and order; quality of bureaucracy; corruption.
- ii) Business Environment Risk Intelligence (BERI);
- iii) The Heritage Foundation (HER): Index of Economic Freedom: Indicators used were: property rights; freedom of investment;

² <https://freedomhouse.org/>

- iv) Economist Intelligence Unit (EIU): Indicators used were: quality of bureaucracy; rule of law; corruption.
- v) Global Insight (IHS): Indicators used were: rule of law; corruption.

Souza Júnior (2013) contributed with aggregated indicators built by him. To do so, it was necessary to collect data and variables which met some criteria, such as conceptual compatibility, representativity, reliability on the sources and on the considered time span.

3 Methodology

Souza Júnior (2013) estimated the effect of political and economic institutions, as well as education on the income per capita of countries by using alternative approaches in comparison with other seminal works on this issue, such as in Acemoglu and Robinson (2005). These authors used ancient historical facts as instrumental variables; whereas the former author worked with predetermined instruments and other instrumental variables which do not depend on historical approach.

The present article estimated the importance of the duration of constitutions on the income per capita of countries. Estimating by 2SLS with cross-section since finding instrumental variables is a tough task. Thus, the authors preferred to use dynamic panel data and GMM-DIF as will be shown.

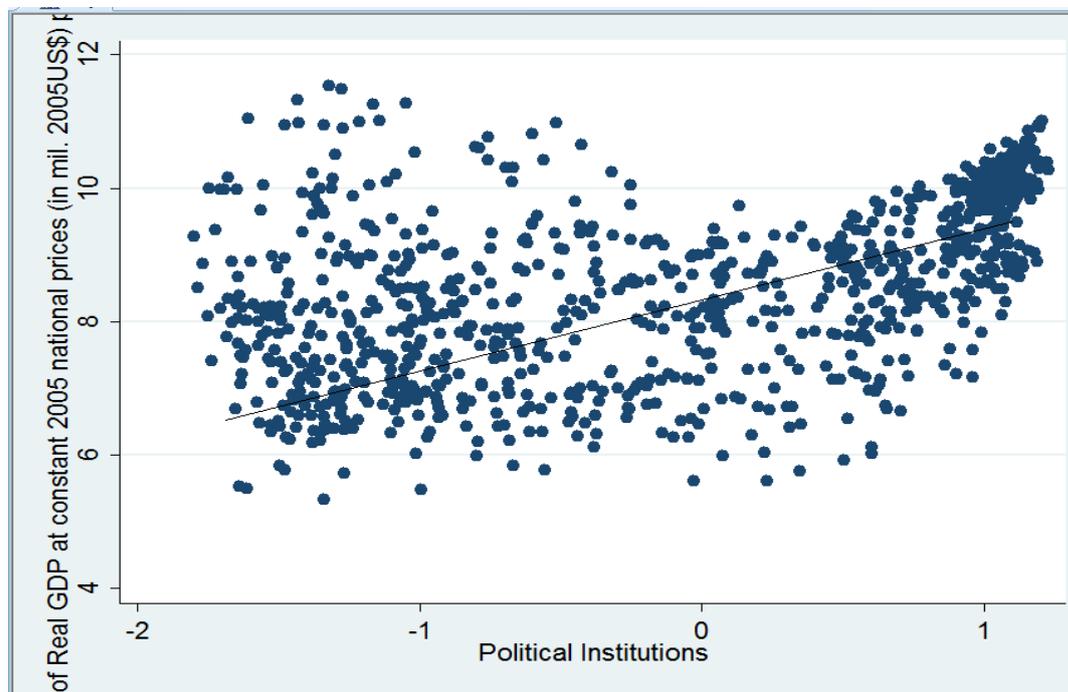
3.1 Theoretical analysis

Hall and Jones (1999) state that differences in income per capita among countries are caused by different human and physical capital stocks per worker and by differences in productivity. However, the determinants of long run productivity is the “social infrastructure”, which provides incentives to households and to firms. Social infrastructure is an aggregate indicator comprehending pieces of information of economic institutions and the degree of openness to international trade. These incentives may incite productive activities.

It is largely known that political institutions have strong relation with the GDP per capita as can be seen in the figure 1 below. The plot illustrates normalized figures. In addition, the present work included another variable as political institution to explain income per capita: duration of constitutions. The authors used data collected by the

Comparative Constitutions Project - CCP³, which produces comprehensive data about the world's constitutions.

Figure1: Political institutions and Ln GDP per capita



By authors.

We tested the hypothesis that the duration of Federal Constitutions matters to help to explain discrepancies in GDP per capita all over the world.⁴ The premise is that the more stable the legal order is the better the political institutions are, leading to more impressive results in terms of income per capita. This assumption is made considering the fact that the Constitutions are the most important norm in a society, from which come the other infraconstitutional laws. Then, it is desirable that the Charters last long as a sign of social and political stability and an ensuing healthier economic scenario.

The estimation was done by 2SLS with cross-section since finding instrumental variables is a tough task. Thus, the authors preferred to use dynamic panel data and GMM-DIF.

³ <http://comparativeconstitutionsproject.org/>

⁴ The sample included only countries with written Constitutions.

4 Results

The results were inconsistent. The authors are still working on this material and data. Thus, in the coming months we will be able to demonstrate all the results achieved so far.

5 Conclusion

Political institutions are of the utmost importance to explain the various steps towards development cross-countries. Still, the institutions are associated to the different

histories and the idiosyncrasies of nations. In light of this, the better the institutions are the stronger will be the guarantees on property rights, prompting more investments once the legal security is well-established.

Written constitutions are considered to major political institutions, therefore this article casts lights on the relation between these documents and the income per capita of the countries. Notwithstanding, we had to deal with endogeneity due to possible omitted variables and simultaneity which could cause omitted-variable and simultaneity bias. In order to assuage these potential bias, it was used Panel Data controlling for several variables.

Treating endogeneity was imperative to reach more accurate econometric results. Likewise, the basic tools used to study the determinants of institutions are the panel data models estimated *via* Generalized Method of Moments (GMM) in differences, the so-called GMM-DIF, based on Arellano and Bond (1991). A hypothesis of predetermined instrument variables was made, in line with the assumption that observations with additional lags are uncorrelated with the error of the current period.

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