Executive Constraints and Economic Growth

Erick Alvarez Barreno[†]
Working Paper

This version: December 17, 2021

Abstract

Using panel data of 143 countries from 1950 to 2010, this article estimates the effects of executive constraints on economic growth. We construct a non-monolithic definition of executive constraints that allow us to characterize two well-specified types: Horizontal and Vertical. The former institutions are linked to a concept of horizontal accountability where the executive is accountable to the parliament, whereas the latter are associated with vertical accountability where the executive is accountable to the electorate. This approach allows us to create a novel typology of political regimes based on the interaction between these institutions. The typology characterizes four institutional settings that determine the degree to which a ruler is committed to secure rights and/or accountable to citizens' sanction. Fixed effects and GMM estimates suggest that the exclusive presence of horizontal constraints is associated with a decrease of about 0.21 percent of GDP per capita. Vertical Constraints have no significant effect, but the presence of both institutions is associated with an increase of about 0.18 percent of GDP per capita. The results show an empirically relevant interaction between both constraints.

Keywords: Executive Constraints; Types of Rulers; Economic Growth

1 Introduction

Institutional analysis contends that securing property rights and enforcing contracts have a positive effect on economic development (Acemoglu, Jonhson and Robinson 2001, 2005; Rodrik, Subramanian and Trebbi 2004; Acemoglu and Robinson 2012). Most of this literature centers on the critical role of economic institutions in reducing transaction costs and enabling individuals to capture the expected gains of voluntary exchange (North

[†]M.Res. in Comparative Politics, Facultad Latinoamericana de Ciencias Sociales, FLACSO Ecuador. Lecturer in Political Science, Universidad Hemisferios. Email: eaalvarezfl@flacso.edu.ec

and Thomas 1973; North 1990). However, "markets cannot operate in an institutional vacuum" (Johnson and Koyama 2017, 13). For property rights to be secured, there is to be a centralized and powerful enough state to strengthen contract enforcement, resolve coordination failures, and prevent opportunistic behavior from occurring. Thus, not only economic institutions such as markets must provide the basic conditions for development, but the state – and those who govern it – must establish the foundations for them to properly evolve.

This assumption contrasts with the fact that some states could be extremely inefficient in ensuring order in their own territory and protecting basic political and economic rights of the citizenry; while others can be so powerful that they could become a major threat to individual rights (Menard and Shirley 2005). As a potential solution to this problem, scholars have seen in "political institutions of limited government" the ideal instrument to reduce the menace of state predation. These institutions, also commonly referred to as "executive constraints", have been treated as conducive to economic development since they tend to protect individual property rights by ensuring rulers' credible commitment not to use the state's coercive power to expropriate private and social assets (North and Weingast 1989).

This article examines the effects of executive constraints on economic growth by addressing two questions: To what extent do they shape economic outcomes? And through which channels are their potential effects produced? We construct a non-monolithic definition of executive constraints that allow us to characterize two well-specified types: Horizontal and Vertical. The former institutions are linked to a concept of horizontal accountability where the executive is accountable to the parliament, whereas the latter are associated with vertical accountability where the executive is accountable to the electorate. This theoretical approach allows us to create a novel typology of political regimes based on the interaction between these two institutions. This typology characterizes four institutional settings that determine the degree to which a ruler is committed to secure rights and/or accountable to citizens' sanction.

Therefore, we should expect to observe countries with committed and accountable rulers (presence of both constraints); other countries with committed, but not accountable ones (presence of horizontal, absence of vertical), while other rulers would be not committed, but accountable (absence of horizontal, presence of vertical); and, finally, countries with neither committed, nor accountable rulers (absence of both constraints). Fixed effects and GMM estimates suggest that the exclusive presence of horizontal constraints is associated with a decrease of about 0.21 percent of GDP per capita. Vertical Constraints seem to have no effect significantly different from zero from zero, but the presence of both institutions is associated with an increase of about 0.18 percent of GDP per capita. The results show an empirically relevant interaction between both constraints.

The remainder of the article is organized as follows. Section 2 provides a basic and non-monolithic definition of executive constraints, defines two types of them (horizontal and vertical) and surveys some of the literature that addresses their economic roles. The section concludes by presenting a novel approach developed to analyze their interaction. Section 3 survey the literature on the economic effects of regime type to identify observable implications of the approach being developed on the article. We then pose some hypotheses to test the validity of our approach. Section 4 describes the empirical strategy to assess our argument. Section 5 analyzes the results and Section 6 concludes.

2   Constraints on Rulers: Definition and Roles

Why do some countries grow, while others become poorer? One of the most puzzling questions for economics is to explain the economic success and failure of societies. Conventionally, scholars have cited as determinants of development factors such as technological change and innovation; specialization (as a result of the division of labor) and the generation of economies of scale; the accumulation of physical and human capital; the reduction in the information costs of markets; and the increase in productivity through the efficient allocation of resources. The seminal work of North and Thomas contests this approach by suggesting that these factors do not constitute determinants of growth by themselves, but rather "they are growth" (1973, 2).[1]

North's contributions strengthen the view that places institutions as the fundamental determinant that explains the economic and political divergences across societies. Institutions are defined as the "rules of the game", or formally, the constraints devised by people that shape human interaction" (North 1990, 3). Institutions are crucial for growth because they reduce the transaction costs of human interaction, which allows capturing the gains from voluntary exchange (North and Thomas 1973; North 1990). Within this view, societies may adopt efficient economic organizational forms by establishing institutional arrangements that motivate the undertaking of socially beneficial activities – which happens when the relative individual benefit of undertaking these activities exceeds their cost. As Acemoglu, Johnson and Robinson pinpoint, some ways in which these arrangements are organized "encourage people to innovate, to take risks, to save for their future, to find better ways of doing things, to learn and educate themselves, to solve collective action problems, and to provide public goods" (2005, 397).

---

[1]An essential difference in understanding the argument of North and Thomas (1973) is the difference between 'fundamental" and "proximate" determinants of economic development. For the proponents of this view, the factors listed such as innovation, education or capital accumulation are considered as proximate determinants because although they are important for a society to growth, they do not constitute an explanation for the sources of differences in prosperity between societies. On the contrary, fundamental determinants such as institutions, culture or geography explain both the higher concentration of a proximate determinant such as education or capital and the differences in prosperity between countries. For a more detailed explanation see Acemoglu, Gallego, and Robinson (2014).

Economic institutions are crucial to running the economy by solving market coordination failures and commitment problems (Greif 2000; 2006), whereas political institutions set the foundations for the former to be sustained by coordinating and processing social conflict, and regulating how political power is distributed and exercised. The economic role of political institutions is to ensure fundamental rights by limiting political power (Weingast 1993; 1995). This may solve the fundamental problem in which a government strong enough to protect individual rights is also strong enough to transgress them. If properly functioning, Executive Constraints (from now on EC) are institutions that may be suitable to fulfill this objective. Nevertheless, how can we define EC and what functions must they accomplish in order to effectively impose controls on rulers and have an effect on economic outcomes?

This section proposes a novel approach to understanding and determining the impact of EC on economic growth. First, a basic definition is constructed. Then, we distinguish between two types of EC, we also describe some of the literature that we believe has attempted to study them, and identify their fundamental economic roles. Next, some important contributions that have studied the economic performance of different types of political regimes are briefly reviewed (this is due to the very limited literature that deals specifically with the relationship between EC and growth). From this discussion, we identified the ways in which EC can affect growth and the potential channels of influence.

2.1 A basic and non-monolithic definition of executive constraints

From North and Weingast (1989) we know that EC are related to the existence of a parliament endowed with sufficient powers to control the ruler, especially in his ability to raise revenue. In Polity 5 they are defined as political constraints that can be imposed by any "accountability group" (Marshall and Gurr 2020). This second definition extends the term to non-democratic political systems, suggesting that leaders of authoritarian regimes may also be subject to institutional barriers. Thus, the standard definition of EC mainly reflects the degree of checks and balances imposed on the executive branch of government. This approach limits the analytical spectrum of the concept by not incorporating other possible institutions that may also be relevant when conditioning the discretionary use of power and those who wield it. Therefore, in an attempt to enrich the specification of EC, this paper proposes the following definition:

Executive constraints are those institutions – mostly formal – that restrict the discretion of power holders in two fundamental political dimensions: collective decision-making processes, and the use of state coercion.

With this definition, EC cannot be understood within a monolithic concept because its

4

scope incorporates other characteristics that reflect the distribution of power in a society. The first dimension refers to the institutions that regulate political competition (e.g., suffrage understood as a collective decision leading to the election of authorities), and the decision-making procedures in formal instances of government – which includes the ability to regulate individual rights of citizens (e.g., property rights, voting rights, economic rights, etc.). The second dimension is the regulation of state capacities regarding the legitimate or non-legitimate monopoly of the use of violence.

Similarly, this proposal can be used for both de facto and de jure constraints, it includes politicians within the group subject to control (i.e., they do not only control rulers), and most importantly, it incorporates in the EC category other relevant institutions such as elections. In addition, this approach allows us to use the distinction presented in Cox and Weingast (2017) between "horizontal and vertical constraints." Thus, the former constraints are linked to a concept of horizontal accountability where the executive is accountable to parliament (and/or an independent judiciary), and the latter to vertical accountability where the executive is accountable to its constituents or the electorate. Next subsections define both types of constraints and identify their economic roles.

2.2 Horizontal Constraints

EC are institutions that reduce the discretionary nature of power. This concept stems from the need to limit rulers due to the menace that the will of one may overturn the freedom and rights of the many. These institutions are commonly associated with the principle of separation of powers. From the notion of The Federalist, two characteristics may define how they function: (1) The existence of some degree of "constitutional intrusion" from some branches of government to other branches' attributions;[2] and (2) the presence of a conflict of interests among actors involved in those branches.

Precisely this conflict of interests – which is developed and processed through formal state institutions – is what characterizes Horizontal Executive Constraints (from now on HC). These institutions divide the power of government into relatively autonomous branches. An effective division of power entails a number of institutional veto players capable enough of influencing political decision-making. These checks can be imposed from legislative control over executive attributions (E.g. public budget), from the presence of an independent judiciary with legal instruments to review executive decisions (E.g. Judicial Review), or from the ability of other state agencies to remove rulers from office (E.g. impeachments, or votes of no confidence). In the opposite case, a single veto point (Tsebelis 2001) reflects the situation of a leader who has unilateral control over political

---

[2]Specifically, Madison argues: "(...) unless these departments be so far connected and blended, as to give to each a constitutional control over the others, the degree of separation which the maxim requires, as essential to a free government, can never in practice be duly maintained" (The Federalist No 48, 256).

decision-making. This situation commonly reflects the functioning of authoritarian rule.

How do HC influence economic outcomes? By analyzing the Glorious Revolution of 1688, North and Weingast (1989) found that HC over the royal prerogatives of William III of Orange were conducive to capital market development, the increase of government's capacity to raise revenues, and the ensuing harnessing of innovations introduced by the Industrial Revolution. Within their study, HC are seen as "commitment devices"[3] that turn credible ruler's promises to secure the individual rights of relevant social actors. As noted above, rulers are the principal menace for citizen's rights since they hold power over the confiscatory capacity of the state. The existence of HC enables other institutional veto players to bind ruler's decisions to their own interests. Hence, the ruler is obliged to respect individual rights (E.g. property rights), something that, in the absence of the commitment, he would not have incentives to do.

More recent studies show that HC tend to increase the level of private investment because they generate certainty about the political environment, and they reinforce the confidence of investors about the security of their assets in the future. Using data on private investment in 74 developing countries, Stasavage (2002, 42) finds that, on average, the change from a system without checks and balances to one in which the executive and the parliament are controlled by different political parties increases private investment by 16 percentage points. Stasavage's methodological approach also confirms his hypothesis that there is some sort of variance in private investment levels across countries without checks and balances, which means that there are differences across countries with no HC in their capacity to foster private investment.

Other studies associate political uncertainty resulting from electoral processes with incentives to make irreversible productive investments[4] (Bernanke 1983). Canes-Wrone and Park argue that "the larger the effects of an electoral outcome on an individual's financial situation, the more likely she should be to delay costly-to-undo investments" (2014, 87). Their analysis shows that some irreversible investment sectors experience a decline due to the uncertainty produced by electoral competition. Moreover, Canes-Wrone and Ponce de Leon claim that democratic development should reduce "inverse electoral investments and opportunistic business cycles" (2015, 19). They specifically suggest that the lesser the degree of executive power oversight, the greater the political uncertainty associated with electoral competition and, consequently, the larger the

---

[3]For Sanchez-Cuenca, a commitment is "a manipulation of your set of alternatives enabling you to achieve an outcome that would be impossible to attain in the absence of the commitment" (1998, 79-80). This manipulation adopts two forms: constraining available sets of alternatives, or imposing high costs on some of those alternatives.

[4]Irreversible investments can be those that have to do, but not exclusively, with durable goods (Bernanke 1983, 104), physical and capital investment (Rodrik 1991, 230-231), real estate (Canes-Wrone and Park 2014, 84), fixed capital investments (Cox and Weingast 2017, 293) such as construction inputs, infrastructure and equipment, and other types of durable goods such as those in the automobile sector (Canes-Wrone and Ponce de Leon 2015, 4).

decline in private investment. This outcome is reproduced when political power "faces few institutional constraints, government transparency is low, and freedom of speech is curtailed" (Canes-Wrone and Ponce de Leon 2015, 19).

In conclusion, the literature suggests that there is a strong and positive relationship between HC and incentives to invest in different sectors of the economy. Checks and balances tend to increase the level of private investment because they reduce the uncertainty associated with the macroeconomic and political environment. This in turn reinforces investors' confidence about the rules of the game and the security of their private property.

2.3   Vertical Constraints

EC contribute to economic growth precisely because they fulfill a function: to restrict rulers' behavior. An outstanding scholarly tradition highlights that retrospective voters should control politicians whose performance is perceived as inappropriate. Barro (1973, 19) develops a model in which the electoral process serves as a mechanism to align the interests of politicians with the interests of their constituents. Ferejohn (1986; 1999) argues that voting can be exercised as an accountability mechanism when politicians fail to meet a determined citizen's welfare threshold. Vertical Executive Constraints (from now on VC) are defined as those institutions that impose electoral controls on politicians. They allow for vertical accountability, in which citizens are capable of evaluating and accordingly sanctioning[5] their rulers' performance, to occur.

VC are institutions that bind power holders with political stakeholders that are not part of formal state bodies. This relationship may better be suited to a principal-agent interaction in which the former (voters) delegate some attributions to the later (rulers) in order to represent their interests. Within this approach, elections may solve the problems of adverse selection and moral hazard that emerge from the agency relationship. In Persson, Roland, and Tabellini, these institutions perform at least four distinct functions:

(1) They aggregate and represent voter's conflictive preferences; (2) they aggregate disperse information about correct political decisions; (3) they address the problem of adverse selection by allowing citizens to select the most competent individuals for public office; and (4) they provide a mechanism to control moral hazard by holding elected officials accountable to citizens (1996, 2).

How VC may contribute to economic growth? Some of the few studies that address the effects of VC suggest that they can indeed influence some economic factors, especially when they reinforce political accountability. For example, Benhabib and Przeworski (2010) examine the impact of specific types of accountability on economic growth.

---

[5]On this point, Manin, Przeworski, and Stokes (1999, 30) argue that the threat of not being re-elected should be enough to induce politicians to act in the best interests of their voters.

They distinguish between two restrictions that make politicians accountable:[6] electoral and criminal controls. The former occurs when governments are politically accountable as they are subject to citizen sanction, while the latter occurs when governments are criminally accountable to other autonomous agencies. They conclude that countries in which rulers are accountable grow faster than countries in which they are not. This is because, when rulers extract resources beyond a socially justified threshold, voters would have the capacity to remove them from office, generating in turn political incentives for better public policy management (Benhabib and Przeworski 2010, 79). In other words, elections may contribute to growth when they allow citizen sanction over rulers' performance.

The following subsection describes the extent on which HC and VC interaction may inform not only about how their specific economic functions are met, but if the sequence in which they emerge in the society produces different economic outcomes. As a result, it is possible to identify the economic functions that EC perform, the ways in which they influence growth, and the channels through which their potential effects are produced.

2.4   Two essential functions, four institutional settings

One of the main objectives of this article is to examine the means by which EC shape economic outcomes. With this in mind, the study can look forward to exploring how and to what extent HC and VC may contribute to economic growth. The literature suggests that HC tend to create a commitment to secure property rights of relevant social actors, which encourages the undertaking of beneficial economic activities such as investment. This is generated by reinforcing actors' certainty that their property will not be expropriated, and that the rules of the game will not be changed at rulers' caprice. Meanwhile, when VC strengthen political accountability (i.e. the citizen's ability to sanction the performance of politicians) they tend to promote policy improvements conducive to better economic results. In sum, there are two essential functions through which EC may contribute to economic growth: HC through credible commitments, and VC through electoral accountability.

A puzzling fact is that empirical evidence suggests that there is no regular pattern to the sequence in which these institutions emerge in society. For example, there are institutional settings with the presence of both EC, such as democratic political systems with effective division of powers and free and fair elections. Other settings may present different combinations of both types of constraints such as systems with exiguous checks and balances, but where regular elections are held, or settings in which the leader is controlled neither by the parliament nor by the citizenry.

---

[6]Their definition of "accountability" is consistent with that of Maravall in Boix and Stokes (2007, 910) in which "a government is accountable when citizens can hold it responsible for its actions and, consequently, punish or reward it with their vote at election time."

The English case illustrates this point. The need to levy taxes by the Stuarts between 1603 and 1651 encouraged conflicts between their supporters and opponents. After they were deposed as a result of the English Civil War, and after their restoration in 1660, between 1686 and 1688, King James II excluded the Whigs from the political process and then tried to do the same with his own supporters, the Tories. These actions prompted his final overthrow, and the Crown's offering to William III of Orange in exchange for abiding by The Bill of Rights, which protected the interests of the actors represented in the Parliament. As a result of the Glorious Revolution of 1688, the new constitutional foundation provided various actors with veto power over government decisions, creating the beginnings of a division of powers (North and Weingast 1989, 818).

Although this "constitutional watershed" (Cox 2012) allowed the formation of representative institutions that ceded power to a broader segment of society, political inequalities still prevailed. Barely two percent of the English population could vote in the 18th century (Acemoglu and Robinson 2012, 230). What is more, the franchise in the country was not extended until 1832, then in 1867 and 1884 by incorporating the majority of the adult male population, and finally in 1919 and 1928 when women were finally included (Acemoglu and Robinson 2000, 1182).

The English case shows the fact that the introduction of checks and balances preceded the extension of universal suffrage by many years, until finally the country was arranged in a system with the presence of both institutions. This means that if we take into account the extension of the franchise to the majority of adult male population that took place in 1884, and the last extension during 1919 and 1928, England had between 196 and 240 years of institutional performance reflected by the exclusive presence of HC (taking 1688 as its year of introduction), and between 131 and 87 years of institutional performance characterized by the presence of both HC and VC (taking 2015 as an arbitrary reference year).

Both the theoretical functions of EC and the empirical evidence of different institutional sequencing may be used to characterize various "institutional settings" that are formed by the interaction between HC and VC. These settings reflect the extent to which the ruler would find his discretion restricted, the direction of the accountability generated, the target group to which he must be accountable (be responsible by VC), and the group to which he must secure some individual rights (be committed by HC).

This classification allows the argument that the interaction between HC and VC forms at least four institutional settings built according to all their possible combinations. As described above, these settings determine the extent to which a ruler is committed to protecting rights, and/or is accountable to citizens' sanction. Therefore, one would expect to observe countries with committed and accountable rulers (presence of both constraints); other countries with committed, but not accountable ones (presence of horizontal, ab-

sence of vertical), while other rulers would be not committed, but accountable (absence of horizontal, presence of vertical); and, finally, countries with neither committed, nor accountable rulers (absence of both constraints). Table 1 describes these settings.

Table 1: Type of ruler based on the presence and/or absence of Executive Constraints

| | | Horizontal Constraints | |
		Yes	No
Vertical Constraints	Yes	Committed and accountable ruler	Not committed but accountable ruler
	No	Committed, but not accountable ruler	Neither committed, nor accountable ruler

Source: The author.

By adopting this approach, two relevant contributions to the literature are made. The first is that it explores the interaction between two institutions often linked and treated together. By separating and examining their specific functions, it is possible to identify that both institutions may influence economic outcomes throughout different channels and at different degrees. On the other hand, the proposal is somewhat distanced from theoretical and empirical approaches that treat the economic consequences of political institutions according to a specific type of regime. In this regard, it contributes with a novel approach to evaluating the impact of institutional variations within these regimes. This is done by evaluating the impact of different institutional settings that may arise in societies in different sequences and in different periods of time.

3 Economic Effects and Observable Implications

4 Data and Methods

4.1 Equations

Equations are used in the same way as described in the LaTeX manual. Do not start a paragraph with a displayed equation. Equations are numbered consecutively, with equation numbers in parentheses flush right. For example, if you type

```
\begin{equation}\label{eq1}
\int^{r_2}_0 F(r,\varphi){\rm d}r\,{\rm d}\varphi = [\sigma r_2/(2\mu_0)]
\int^{\infty}_0\exp(-\lambda|z_j-z_i|)\lambda^{-1}J_1 (\lambda r_2)J_0
(\lambda r_i\,\lambda {\rm d}\lambda)
\end{equation}
```

then you will get the following output:

$$\int_0^{r_2} F(r, \varphi) \mathrm{d}r \, \mathrm{d}\varphi = [\sigma r_2/(2\mu_0)] \int_0^\infty \exp(-\lambda|z_j - z_i|)\lambda^{-1} J_1(\lambda r_2) J_0(\lambda r_i \, \lambda \mathrm{d}\lambda) \qquad (1)$$

It inserts space both above and below the equation. $\mathcal{AMS}$-LaTeX has several environments that make it easier to typeset complicated multiline displayed equations. These are explained in the $\mathcal{AMS}$-LaTeX User Guide. A `subequation` environment is available to create equations with sub-numbering of the equation counter. It takes one (optional) argument to specify the way that the sub-counter should appear.

4.2 Appendix

The `\appendix` command signals that all following sections are appendices, and therefore the headings after `\appendix` will be set as appendix headings. For a single appendix, use `\appendix*` followed by the `\section{text}` command to suppress the appendix letter in the section heading.

4.3 Special sections for notes and acknowledgements

If you wish to include a 'Notes' or 'Acknowledgements' section in your paper, use the `\begin{notes}...\end{notes}` macro. We use the same environment for both 'Notes' and 'Acknowledgements'. The following examples show to how to use this macro.

```
\begin{notes}
Please note that this class file is provided as it is, and
copyright by Oxford University Press. You are free to use this
class file, provided that you do not make changes in this class file.
If you do make changes, you are requested to rename the class file.
\end{notes}

\begin{notes}[Acknowledgements]
The authors would like to thank...
\end{notes}
```

References

Acemoglu, Daron, Francisco A. Gallego, and James A. Robinson. 2014. "Institutions, Human Capital, and Development." *The Annual Review of Economics*, 6, pp. 875-912.

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2001. "The Colonial Origins of Comparative Development: an Empirical Investigation." *The American Economic Review*, 91 (5), pp. 1369-1401.

_. 2005. "Institutions as a Fundamental Cause of Long-Run Growth." In Aghion, and Durlauf (Editors). *Handbook of Economic Growth*, Volume 1A., Elsevier B.V., pp. 387-472.

Acemoglu, Daron, Suresh Naidu, Pascual Restrepo, and James A. Robinson. 2019. "Democracy Does Cause Growth." *Journal of Political Economy*, 127 (1), pp. 47-100.

Acemoglu, Daron, and James A. Robinson. 2000. "Why did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective." *The Quarterly Journal of Economics*, 115 (4), pp. 1167-1199.

_. 2012. Por qué fracasan los países: los orígenes del poder, la prosperidad y la pobreza. Barcelona. Deusto, Grupo Planeta.

Angrist, Joshua, and Jörn-Steffen Pischke. 2009. *Most Harmless Econometrics: An Empiricist's Companion*. Princeton y Oxford, Princeton University Press.

Arellano, Manuel, and Stephen Bond. 1991. "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations." *The Review of Economic Studies*, 58 (2), pp. 277-297. https://doi.org/10.2307/2297968.

Aron, Janine. 2000. "Growth and Institutions: A Review of the Evidence." *The World Bank Research Observer*, 15 (1), pp. 99-135.

Banks, Arthur S., and Kenneth A. Wilson. 2013. "Cross-National Times-Series Data Archive." *Jerusalem: Databanks International*. https://www.cntsdata.com/

Barro Robert. J. 1973. "The Control of Politicians: An Economic Model." *Public Choice*, 14, pp. 19-42.

_. 1996a. "Institutions and Growth, an Introductory Essay." *Journal of Economic Growth*, 1 (2), pp. 145-148.

_. 1996b. "Democracy and economic growth." Journal of Economic Growth, 1(1), pp. 1-27.

_. 1997. *Determinants of Economic Growth: A Cross-Country Empirical Study*. Cambridge, MA: The MIT Press.

Barro, Robert. J., and Xavier Sala-i-Martin. 2004. *Economic Growth.* Cambridge, MA: The MIT Press.

Benhabib, Jess, and Adam Przeworski. 2010. "Economic Growth under Political Accountability." *International Journal of Economic Theory*, 6, pp. 77-95.

Bernanke, Ben S. 1983. "Irreversibility, Uncertainty, and Cyclical Investment." *The Quarterly Journal of Economics*, 98 (1), pp. 85-106.

Blundell, Richard, and Stephen Bond. 1998. "Initial conditions and moment restrictions in dynamic panel data models." *Journal of Econometrics*, 87, pp. 115-143.

Boix, Carles, Michael K. Miller, and Sebastian Rosato. 2018, "Boix-Miller-Rosato Dichotomous Coding of Democracy, 1800-2015." Harvard Dataverse, V3. https://doi.org/10.7910/DVN/FJLMKT

Bolt, Jutta, Robert Inklaar, Herman de Jong, and Jan Luiten van Zanden. (2018). "Rebasing Maddison: New Income Comparisons and the Shape of Long–Run Economic Development." *GGDC Research Memorandum*, 174. https://www.rug.nl/ggdc/html_publications/memorandum/gd174.pdf

Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2003. *The Logic of Political Survival.* Cambridge, MA, MIT Press.

Bueno de Mesquita, Bruce, and Alastair Smith. 2011. em The Dictator's Handbook: Why Bad Behavior is Almost Always Good Politics. Public Affairs, New York.

Canes-Wrone, Brandice, and Christian Ponce de Leon. 2015. "Electoral Cycles and Democratic Development." *Manuscript*, Princeton University.

Canes-Wrone, Brandice, and Jee-Kwang Park. 2014. "Elections, Uncertainty and Irreversible Investment." *British Journal of Political Science*, 44, pp. 83-106.

Cheibub, Jose Antonio, and Adam Przeworski. 1999. "Democracy, Elections, and Accountability for Economic Outcomes." In Przeworski, Adam, Susan Stokes, and Bernard Manin (Editors). *Democracy, Accountability, and Representation.* Cambridge, Cambridge University Press, pp. 222-249.

Clark, Tom S., and Drew A. Linzer. 2015. "Should I Use Fixed or Random Effects?" *Political Science Research and Methods*, 3 (2), pp. 399-408. DOI: https://doi.org/10.1017/psrm.2014.32

Cox, Gary W. 2012. "Was the Glorious Revolution a Constitutional Watershed?" *The Journal of Economic History*, 72 (3), pp. 567-600.

Cox, Gary W., and Barry R. Weingast. 2017. "Executive Constraint, Political Stability and Economic Growth." *Comparative Political Studies*, 51 (3), pp. 279-303.

Dasgupta, Partha. 1993. *An Inquiry into Well-Being and Destitution*. Oxford University Press.

Doucouliagos, Hristos, and Mehmet Ali Ulubasoglu. 2008. "Democracy and economic growth: A meta-analysis." *American Journal of Political Science*, 52(1), pp. 61–83.

Engerman, Stanley L., and Kenneth Sokoloff. 2008. "Debating the Role of Institutions in Political and Economic Development: Theory, History and Findings". *Annual Review of Political* Science, 11, pp. 119-135.

Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer. 2015. "The Next Generation of the Penn World Table." *American Economic Review*, 105 (10), pp. 3150-3182, available at: www.ggdc.netpwt.

Ferejohn, John. 1986. "Incumbent Performance and Electoral Control." *Public Choice*, 50 (1/3), pp. 5-25.

_. 1999. "Accountability and authority: Toward a political theory of electoral accountability." In Przeworski, Adam, Susan Stokes, and Bernard Manin (Editors). *Democracy, Accountability, and Representation*. Cambridge, Cambridge University Press, pp. 131-153.

Gerring, John, Philip Bond, William T. Barndt, and Carola Moreno. 2005. "Democracy and Economic Growth: A Historical Perspective." *World Politics*, 57 (3), pp. 323-364.

Giuliano, Paola, Prachi Mishra, and Antonio Spilimbergo. 2013. "Democracy and Reforms: Evidence from a New Dataset." *American Economic Journal: Macroeconomics*, 5 (4), pp. 179-204.

Gjerlow, Haakon, Carl Henrik Knutsen, Tore Wig, and Matthew Charles Wilson. 2018. "Stairways to Denmark: Does the Sequence of State-building and Democratization Matter for Economic Development?" *V-Dem Working Paper*, pp. 1-72.

Greif, Avner. 2000. "The fundamental problem of exchange: A research agenda in Historical Institutional Analysis." *European Review of Economic History*, 4, pg. 251-284.

_. 2006. *Institutions and the Path to the Modern Economy. Lessons from Medieval Trade.* New York, Cambridge University Press.

_. 2008. "Commitment, Coercion, and Markets: The Nature and Dynamics of Institutions Supporting Exchange." In Menard, and Shirley (Editors). *Handbook of New Institutional Economics.* Netherlands, Springer, pp. 727-786.

Haggard , Stephan. 1990. *Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries.* New York: Cornell University Press.

Hamilton, Alexander, James Madison and John Jay. 2001 (1780). *El Federalista.* México, Fondo de Cultura Económica.

Hausman, Jerry A. 1978. "Specification Tests in Econometrics." *Econometrica*, 46, pp. 1251-1271.

Hendrix, Cullen S. 2010. "Measuring State Capacity: Theoretical and Empirical Implications for the Study of Civil Conflict." *Journal of Peace Research*, 47 (3), pp. 273-85.

International Country Risk Guide (ICRG), The Political Risk Rating, Table 3B: Researcher's Dataset. 2018. The PRS Group, Inc.

Johnson, Noel D., and Mark Koyama. 2017. "States and Economic Growth: Capacity and Constraints"(Accepted Manuscript). *Explorations in Economic History*, 64, pp. 1-20.

Knutsen, Carl Henrik. 2012. "Democracy and economic growth: A survey of arguments and results." *International Area Studies Review*, 15 (4), pp. 393-415.

Maddison Project Database, version 2013. Bolt, J., and J. L. van Zanden. (2014). "The Maddison Project: collaborative research on historical national accounts." *The Economic History Review*, 67 (3): 627–651, Working Paper.

Manin, Bernard, Adam Przeworski, and Susan C. Stokes. 1999. "Elections and Representation". In Przeworski, Adam, Susan Stokes, and Bernard Manin (Editors). *Democracy, Accountability, and Representation.* Cambridge, Cambridge University Press, pp. 29-54.

Maquiavelo, Nicolas. 1873. *Discursos sobre la primera década de Tito Livio.* Alianza Editorial, digitial version.

Maravall, Jose María. 2007. "Accountability and the Survival of Governments". In Boix, Carles, and Susan C. Stokes (Editors). *The Oxford Handbook of Comparative Politics.* Oxford, Oxford University Press, pp. 910-939.

Marshall, Monty G., and Ted Robert Gurr. 2020. "Polity 5. Political Regime Characteristics and Transitions, 1800-2018. Dataset Users' Manual." *Center for Systemic Peace.*

Menard, Claude, and Mary M. Shirley. 2005. "Introduction." In Menard, y Shirley (Editors). *Handbook of New Institutional Economics.* Netherlands, Springer, pp. 1-18.

Montero. R. 2010. "Panel dinámico." *Documentos de Trabajo en Economía Aplicada.* Universidad de Granada. España.

North, Douglas C. 1990. *Institutions, Institutional Change and Economic Performance.* Cambridge, Cambridge University Press.

_.1990. "A Transaction Cost Theory of Politics". *Journal of Theoretical Politics*, 2 (4), pp. 355-367.

North, Douglas C., and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *The Journal of Economic History*, 49 (4), pp. 803-832.

North, Douglas C., and Robert P. Thomas. 1973. *The Rise of Western World: A New Economic History.* Cambridge, Cambridge University Press.

Olson, Mancur. 1993. "Dictatorship, Democracy, and Development." *The American Political Science Review*, 87 (3), pp. 567-576.

Papaioannou, Elias, and Gregorios Siourounis. 2008. "Democratisation and Growth." *The Economic Journal*, 118 (532), pp. 1520-1551.

Persson, Torsten, Gerard Roland, and Guido Tabellini. 1997. "Separation of Powers and Political Accountability." *The Quarterly Journal of Economics*, 112 (4), pp. 1163-1202.

Przeworski, Adam, Michael E. Alvarez, Jose Antonio Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950 – 1990.* Cambridge, Cambridge University Press.

Przeworski, Adam, and Fernando Limongi. 1993. "Political Regimes and Economic Growth." *American Economic Association*, 7 (3), pp. 51-69.

Rodrik, Dani. 1991. "Policy Uncertainty and Private Investment in Developing Countries." *Journal of Development Economics*, 36, pp. 229-242.

Rodrik, Dani, Arvind Subramanian, and Francesco Trebbi. 2004. "Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development." *Journal of Economic Growth*, 9 (2), pp. 131-165.

Sánchez –Cuenca, Ignacio. 1998. "Institutional Commitments and Democracy." *European Journal of Sociology*, 93 (1), pp. 78-109.

Sen, Kunal. 2013. "The Political Dynamics of Economic Growth." *World Development*, 47, pp. 71-86.

Shirley, Mary M. 2005. "Institutions and Development." In Menard, and Shirley (Editors). *Handbook of New Institutional Economics*. Netherlands, Springer, pp. 611-638.

Sokoloff, Kenneth L., and Stanley L. Engerman. 2000. "Institutions, Factor Endowments, and Paths of Development in the New World." *Journal of Economic Perspectives*, 14 (3), pp. 217-232.

Stasavage, David. 2002. "Private Investment and Political Institutions." *Economics and Politics*, 14 (1), pp. 41-63.

Stock, James H., and Mark W. Watson. 2020. *Introduction to Econometrics*. Fourth Edition (Global Edition), Pearson Education Limited.

Tavares, Jose, and Romain Wacziarg. 2001. "How democracy affects growth." *European Economic Review*, 45(8), pp. 1341–1378.

The World Bank. (n. r.). *World Development Indicators*. https://databank.worldbank.org/source/world–development–indicators

Weingast, Barry R. 1993. "Constitutions as Governance Structures: The Political Foundations of Secure Markets." *Journal of Institutional and Theoretical Economics*, 149 (1), pp. 286-311.

_. 1995. "The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development." *The Journal of Law, Economics, and Organization*, 11 (1), pp. 1-31.

Williamson, Oliver E. 1985. *The Economic Institutions of Capitalism*. New York, The Free Press.