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**Rule of Law, Economic
and Political Freedom:
Conceptualization and
Measurement**

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Abstract

This paper reviews the theoretical definitions on the concepts of the rule of law, democracy and economic freedom, as well as a large number of measurement projects and indexes that try to quantify them. These three dimensions of liberal democracy many times overlap and are not always well differentiated both at a theoretical and quantitative level, which is likely one of the causes of the conflicting results of the democracy-growth literature. The main goal of this paper is to serve as a first step towards opening the black box of democracy, and thus better capture the mechanisms through which the different attributes of the institutional architecture of a country affect its economic performance.

JEL Classification: O43, E02, P16, K10, H11

Keywords: Rule of law, democracy, economic freedom, institutions.

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1 Introduction

Francis Fukuyama proposed his hypothesis of an end of history more than 30 years ago. He argued that with the fall of the Soviet Block humanity had reached “the end-point of mankind’s ideological evolution and the universalization of Western liberal democracy as the final form of human government” (Fukuyama (1989)). The third wave of democratization appeared to vindicate Fukuyama’s argument by the end of the 20th century (Huntington (1993)). Anyhow, as of today it is by no means clear that liberal democracy is the only game in town. The number of democracies in the world has stagnated in the last two decades, and many of the countries labeled as such are experiencing clear regressions (Lührmann and Lindberg (2019)). It can be argued that the case for democracy should be made on ethical and moral grounds, as the system that best upholds the dignity of every citizen, based on the principles of individual freedom, equality, fairness and justice. Nonetheless, what is in question today does not seem to be this intrinsic value of democratic institutions, but the capacity of free societies to produce sustained improvements in material wellbeing and overall prosperity for all. Examples of democratic countries that have not been able to deliver for its peoples clearly show that democracy is not a sufficient condition to achieve prosperity. Moreover, the recurrently alluded cases of China or other autocratic countries such as Singapore, that have experienced astonishing economic growth in the last few decades, lead to the conclusion that political freedom is not a necessary condition for development either. Whether there exists a trade-off between democracy and economic prosperity is therefore one of the crucial questions of our times.

Economists and political scientists have worked on tackling this question at least since Barro (1996). The literature on the topic is vast and, as of now, a clear consensus has not been reached on the effect of democratization on subsequent growth.¹ Very recent and thoughtful studies such as Acemoglu et al. (2019) and Campos et al. (2022) disagree on the most basic conclusion. The former finds that democratization increases GDP per capita by 20% in the subsequent 25 years, compared to non-democracies. Instead, the latter concludes that economic growth in unequivocal democracies and autocracies is similar, while a third group of hybrid regimes perform significantly worse, generating a U-shape relation between political regimes and economic performance. There are different potential reasons that could explain the conflicting results in the literature, from measurement error to other technical econometric problems such as omitted variable bias, unmodeled country-specific characteristics, reverse causality, etc. All of them being relevant, this paper focuses on a previous, foundational issue, sometimes overlooked by the economics empirical literature but clearly exemplified by the two conflicting papers just mentioned: the conceptualization and measurement of the variable of interest (freedom/democracy).

¹To give just a few examples, Barro (1997), Tavares and Wacziarg (2001), Gerring et al. (2005), Giavazzi and Tabellini (2005) or Murtin and Wacziarg (2014) find null or even negative effects of democracy on growth. Conversely, works such as Persson and Tabellini (2006), Rodrik and Wacziarg (2005), Papaioannou and Siourounis (2008) or more recently Acemoglu et al. (2019), find positive effects.

When we think about free and democratic societies, we have in mind much more than just countries where government officials are appointed by some kind of electoral mechanism. We implicitly include neighboring concepts such as the rule of law, separation of powers, or a battery of individual rights (political, civil, economic, etc.). The interconnection of these concepts is clear, but the boundaries among them are fuzzy, and the definitions many times overlap. It is not straightforward how the different aspects of free societies should be delineated, which attributes are necessary, or how the different pieces interact with each other. The basic framework proposed in this paper envisions three main dimensions that constitute free societies: the rule of law, democracy, and a market economy (i.e. economic freedom). The choice of such attributes is not based on an a priori theoretical stand, but merely on the observation that the measurement projects on politico-institutional aspects that have been extensively used in the empirical literature tend to refer and point to them, even if many times in a somewhat imprecise and vague way. Considering three separate components of freedom conveys the idea that not all democracies are the same. Neither are all autocracies alike. The intuition is that, by descending one level of abstraction and analyzing separately the proposed dimensions of freedom, we may better capture the mechanisms through which the different attributes of the institutional architecture of a country affect its economic performance.

This paper reviews the legal, political and economics theoretical literatures on the concepts of the rule of law, democracy and economic freedom, as well as the different existing indexes that have tried to quantify them. In this way, I follow Giovanni Sartori's advice that "concept formation stands prior to quantification" ([Sartori \(1970\)](#)) and, we could add, both necessarily precede the assessment of the effects on other aspects of reality (economic or any other). I am by no means claiming that the endeavor of defining, conceptualizing and identifying the necessary attributes of liberal democracies has not been pursued before. Such statement would obviate a whole field of political theory and philosophy going back to Plato and Aristotle. Neither I am affirming that this theoretical literature has not informed the proliferation of quantitative indexes during the last 50 years that try to measure different aspects of freedom across countries and time. To the contrary, the suggestion of this paper is that, in order to make progress on the quantification of the economic effects of liberal democracy, we need to take full stock of those theoretical and quantitative investigations and open the black box of democracy, clearly linking its building blocks to sources and mechanisms that affect economic development. Thus, the purpose of this paper is to serve as a first step towards picking up the gauntlet proposed by [Acemoglu et al. \(2019\)](#) to study "*how* democracy alters economic incentives and organizations and *to pinpoint what aspects* of democratic institutions are more conducive to economic success" (emphasis added).

2 Conceptualization of Each Dimension

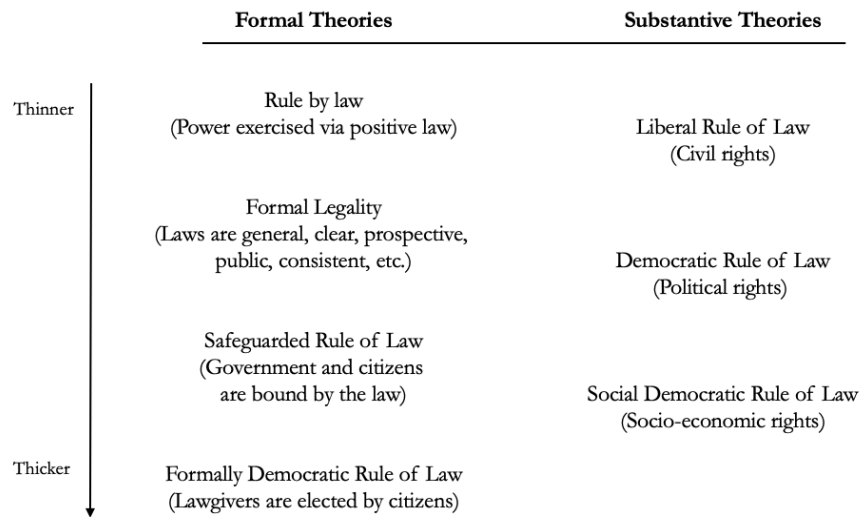
Legal scholars, political scientists and economists have proposed a variety of definitions for each of our concepts of interest: democracy, rule of law and economic freedom. The recurrently used notion of “essentially contested concepts” certainly applies to all three of them (Waldron (2002), Collier et al. (2006) or Spicer (2019)). As Tom Ginsburg puts it, referring the concept of rule of law, “any political ideal shared by the Chinese Communist Party, the American Bar Association, and Jurgen Habermas is likely to be so vague as to have little meaning” (Ginsburg (2018)). Similar considerations can be made regarding democracy and economic freedom. At least in the cases of rule of law and democracy, it is possible to start from a minimalist (thinner) version of the concepts, and gradually extend their definition with additional attributes up to maximalist (broader) descriptions. As we will see, more extensive definitions of one concept are likely to overlap with one or both of the other two. In the following subsections, I review the most relevant conceptualizations of the three dimensions of freedom.

2.1 Rule of Law

The rule of law is a political ideal about the legal system, and thus about the laws and their characteristics. A standard approach to systematize different conceptions of the rule of law is to differentiate between formal requirements that the laws must possess, and characteristics that deal with the specific content of the norms. This distinction gives rise to what are usually labeled as “formal” and “substantive” formulations of the rule of law. Even within these two traditions, a variety of conceptualizations have been proposed in the literature depending on the attributes required by different authors to consider a legal system abides by the rule of law. Following Tamanaha (2004) and Moller and Skaaning (2012), figure 1 depicts a schematic hierarchy of rule of law conceptualizations. As we move down on each column, additional attributes are included in the concept and the definition becomes thicker.

Starting from formal theories (left), a minimalist definition of rule of law only imposes that the exercise of power by the state is carried out via positive legal norms. That is, as long as all actions of government officials are authorized by law, we could say such a state fulfills the requirements of the rule of law. The literature has tended to denote such a situation as mere rule by law, and pointed to an obvious flaw which makes it virtually useless: almost any state in the world today operates, at least *de jure*, through legal norms and decrees. A thicker version of the rule of law imposes certain formal criteria on the laws, which pivot around the idea of *universalizability*. This characterization of rule of law, usually denoted as formal legality, requires that government laws are general, publicly promulgated, non-retroactive, clear, consistent, and relatively stable. Similar lists of formal standards can be found in a variety of authors, especially prominent legal scholars such as Fuller (1969), Raz (1979) or Finnis (1980). These necessary formal traits are required for

Figure 1: RULE OF LAW CONCEPTUALIZATIONS



Notes: Based on [Tamanaha \(2004\)](#) and [Moller and Skaaning \(2012\)](#).

laws to serve their basic function: to guide behavior of those subject to them. Intuitively, it is not possible for individuals to abide by the law if it is not public, or contradicts another norm, or is unintelligible, etc. Now, a question emerges: should laws bind only regular citizens or also the government and its officials? This is a crucial element that has not been equally solved by different authors. Hobbes, in *The Leviathan*, argues that the sovereign is not bound by the laws he himself promulgates, as “he who is bound to himself is not bound” ([Hobbes \(1660\)](#)). The classical liberal solution of philosophers such as Montesquieu and the US Founding Fathers is to break up the sovereign into different branches, in particular separating the judicial arm of the state from the executive power, allowing the former to guarantee that the actions of the latter comply with the established law. The contemporary legal theorists named above agree that for a political system to fulfill the rule of law, the government and state apparatus should be subject to the legal system, and include conditions to ensure this is the case. Raz includes in its definition that an independent judiciary with review powers is guaranteed, as well as imposes that the discretion of crime-preventing agencies is not allowed to pervert the law. Fuller and Finnis are less concrete but reach a similar conclusion, requiring that government actions are congruent with declared rules, and public officials are responsible and accountable for compliance with the laws. [Tamanaha \(2012\)](#) gives a very simple and intuitive definition that synthesizes what figure 1 denotes as safeguarded rule of law. He states that “the rule of law means that citizens and government officials are bound and abide by the law”.

The last attribute included in the formal theories of figure 1 deals with the source of rules, that is, how rules are created. It is rather different to the previous ones, and thus the democratic principle does not seem to perfectly fit within formal versions of rule of law. The addition of a democratic

source of the law as the last step of formal theories only makes sense if we understand democracy in purely procedural terms, in line with the minimalist definition of democracy given by Schumpeter as a *modus procedendi*, by which lawgivers and government agents who apply those laws are selected “by means of a competitive struggle for peoples vote” (Schumpeter (1950)).

The right column of figure 1 summarizes substantive versions of the rule of law. They differ in the specific content that they require for a legal system to fulfill the ideal of rule of law. That is, these versions add to formal versions some necessary substantive content related to the recognition of individual or collective rights. Bingham is a clear exponent of this conception (Bingham (2011)), but we could also include legal theorists such as Dworkin or Hart (Dworkin (1985), Hart (1961)). The thinnest substantive version of rule of law would include fundamental human rights, especially those related to the judicial process. In a second step, negative liberal rights are added. These are individual civil rights clearly envisioned to limit the scope of governmental action, generating a sphere of autonomy for the individual free from the state intervention. While liberal rights such as freedom of expression, movement, religious freedom, etc. are uncontroversial, others might not be accepted by all as constitutive elements of the rule of law. A clear case is that of private property rights. Some classical liberal philosophers such as Locke, and recent legal scholars as Ronald Cass, would argue that property rights are inalienable individual rights equivalent to the others mentioned above, inextricably linking the rule of law with the legal definition and protection of property rights (Locke (2016), Cass (2001)). Instead, those favoring the thicker substantive version of the rule of law, which includes socio-economic positive rights, would certainly disagree. The sometimes called second-generation rights would constitute an additional bundle of individual freedoms that would be required in even thicker conceptions of the rule of law. These are rights intimately linked to the democratic political process, such as freedom of association, demonstration, active and passive suffrage, etc. For this reason, some authors see the electoral component as part of this version of rule of law, and not as the last attribute of formal conceptualizations (i.e. Moller and Skaaning (2012)). In any case, it is clear by now how substantive thick conceptions of the rule of law begin to overlap with the neighboring concept of democracy. The thickest version of the idea of rule of law includes socio-economic rights. Third-generation rights are fundamentally different from those mentioned above. These are positive social rights which do not force the political power to abstain from intervention. To the contrary, socio-economic rights typically compel the government to actively provide individuals with certain basic needs such as education, a social safety net, healthcare, etc. A clear issue arises when trying to organize the different sets of rights to come up with a hierarchical order of substantive rule of law versions. Particularly, whether individual civil liberties should be placed before or after political rights. If we look at the historical political development of the western world, we would favor the order presented in figure 1, where the recognition of civil rights comes prior to political rights. Instead, in many developing countries today it would seem that political rights are more generally operative than individual freedoms. This last option is also in line with the systematic review of the concept of democracy to which I turn in the following section.

2.2 Democracy

The electoral component is at the core of any definition of democracy. A basic democratic requisite is that those holding political power have been appointed by citizens through some kind of voting mechanism. It is the ideal of self-rule or rule by the people, that generates a continuing responsiveness of the government to the preferences of its citizens (Dahl (1971)). Not only those who apply the law are elected by citizens, but also lawgivers. Thus, the source of the law is the sovereignty of the people, introducing an element of consent on the legal system and the exercise of power, absent in autocratic systems. Now, this is the democratic ideal. In real modern societies, what attributes are necessary to label a country as democratic? As would be expected, there is no clear consensus among political scientists and philosophers. The task of organizing the different conceptions might be easier than with the concept of rule of law, because in the case of democracy the hierarchical ladder of abstraction has a clear starting point (the electoral core), and more extensive definitions require the addition of attributes that better guarantee the effectiveness of that core. Thus, the controversy among scholars is about where to draw the line to consider a given system as democratic, rather than on the categorized order of types.

A minimalist definition of democracy focused on electoral principle is given by Schumpeter (1950), as “the institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people’s vote”. The crucial aspect of this definition is competition, the fact that different groups are allowed to enter a contest to gain people’s support. Schumpeter does not require that such a contest be fully free, fair and inclusive, in the sense that all citizens (or a large majority of them) are allowed to participate and freely express their preferences. The definition imposes some degree of competition for political support, and thus even electoral systems with moderate defects could be categorized as democracies. More demanding conditions on the electoral core, in terms of freer and relatively more inclusive elections situate us closer to the definitions of democracy of authors like Przeworski or Vanhanen. These definitions are still mainly procedural, and do not involve any systematic protection of individual rights besides a relatively ample suffrage. In particular, rights such as freedom of assembly or freedom of speech that directly favor practical electoral competition. Intuitively, democracy is understood as “a system in which governments lose elections” (Przeworski (1991)). A system of general, free and fair elections, that are decisive in the choice of political leaders but lacks an adequate protection and respect for individual rights, has been denoted as electoral democracy (Vanhanen (1984)) or illiberal democracy (Zakaria (2003)).

Thicker definitions of democracy add individual rights and guarantees to the electoral core described above. We can think of individual rights as serving two purposes in relation to democracy. On the one hand, political rights significantly improve the electoral mechanism and thus the identification of those in power and the policies they enact with the population they govern. On the other, civil or liberal rights serve as a limit to the majority principle embedded in the democratic process. Including different sets of these rights generates the two thicker conceptualizations of democracy

generally referred to in the literature. Probably the most widely accepted definition of democracy is that of [Dahl \(1971\)](#). If governments are to be responsive to their peoples, Dahl argues, then citizens must have effective opportunities to formulate, signify and have those preferences weighted equally. In Dahl's view, such opportunities not only require free and fair elections but a series of guarantees in the form of individual political liberties. In particular, he enumerates eight guarantees: (1) freedom to form and join organizations, (2) freedom of expression, (3) right to vote, (4) eligibility for public office, (5) right of political leaders to compete for support/votes, (6) alternative sources of information, (7) free and fair elections and (8) institutions for making government policies depend on votes. The individual rights contained in guarantees 1, 2, 3 and 6 are eminently political, in the sense that they are considered here as instrumental for the electoral political process. Dahl denotes a system that safeguards free and fair elections with the general respect for political liberties as polyarchy. We can better understand the difference between Dahl's polyarchies and electoral democracies with the ideas of contestation and inclusiveness. Electoral democracies require a significant degree of inclusiveness, as epitomized by the extension of the franchise to large fractions of the population, but are less demanding in terms of the degree of allowed public contestation. Polyarchies require both ample suffrage and opportunities to oppose, contest and compete in the political arena, that are only effectively attained if political rights are sufficiently protected.

Finally, the thickest definition of democracy incorporates liberal civil rights. As already mentioned in the discussion about the rule of law, these rights serve a different purpose from political rights. The primary objective of liberal civil rights is to limit the scope of governmental action guaranteeing an area of individual autonomy and freedom, and this applies to both autocratic or democratically elected governments. In the latter case, individual liberal rights limit the risk of the tyranny of the majority. It is important to notice that authors that propose this thick conceptualization of democracy, incorporating political and civil rights, usually assume an independent judiciary capable of enforcing such rights. Thus, an all-embracing definition of liberal democracy subsumes the idea of safeguarded rule of law discussed above (see for example [O'Donnell \(1998\)](#) or [O'Donnell \(2001\)](#)). It is clear that the hierarchy of democracy types sketched here visibly resembles the argumentation of the different substantive conceptions of rule of law, showing again the difficulty of disentangling these concepts.

2.3 Economic Freedom

Economic freedom is a concept clearly associated with economists such as M. Friedman and F. A. Hayek, but we can trace back its origins to the classical liberal thinkers of earlier centuries. This is because for many of them, private property rights are just one among many civil liberties. Thus, the theoretical rationale is similar to that of other liberal freedoms such as expression, movement, religion, etc., and is based on the principle of personal individual choice. In this way, economic freedom is viewed as a negative right that requires others (especially the government) to abstain from interference. That is, economic freedom implies absence of coercion in the sphere of economic

decisions. Understood in this way, it is not possible to discern a hierarchical structure of economic freedom definitions, starting from a minimalist definition and subsequently adding attributes in order to form thicker versions of the concept, as we were able to do with the concepts of rule of law and democracy. Conceptualizing economic freedom as a dichotomous attribute that societies may possess or not is not a convincing solution either. It seems that the way to make progress is to think about economic freedom as a continuum between two polar cases, along which societies are situated. This is how modern thinkers and pundits of economic freedom like Hayek, Mises or Friedman have understood the concept. Moreover, this is also the theoretical foundation behind the construction of the two most widely used indexes of economic freedom; namely, the Economic Freedom in the World Index produced by the Fraser Institute, and the Heritage foundation's Economic Freedom Index (both reviewed in section 3.3 below).

According to Milton Friedman, the crucial issue is whether economic decisions are guided by the market principle or the political principle. The former relies on individual choice, voluntary exchange, and free competition. The latter, instead, relies on the coercive power of the state to decide on economic affairs ([Friedman and Friedman \(1962\)](#)). Notice that both principles are compatible with any kind of political system, whether democratic or not. Hayek would use the distinction between decentralized and centralized economies, again referring to the source of economic decisions, private individuals or the government ([Hayek \(1945\)](#)). On the one hand, the polar case in which a society is fully free in economic terms would be identified with the anarcho-capitalist views of authors like Murray Rothbard, where all economic decisions are in the hands of private individuals, and the state has no role ([Rothbard \(1962\)](#)). On the other hand, a society in which the state owns all the means of production (even labor) and centrally decides all economic affairs would be denoted as completely unfree in economic terms. Both extreme cases are hardly empirically relevant. If we want to apply the concept to modern economies, we need first to acknowledge that these are extremely complex machineries composed of a myriad of sectors and markets, and the involvement or intervention of the state in each of them might differ widely, or even be unavoidable in some cases. As is recognized by some of the most ardent promoters of economic freedom, there are areas in which government action is necessary to generate the conditions for the full exercise of individual economic freedom. Here, the government's protection of property rights plays a crucial role, not only requiring the recognition of private ownership and the bundle of rights associated with it, but also the enforcement of private contracts that formalize economic activities. Both economic freedom indexes mentioned above admit this necessary involvement of the state in economic affairs as a precondition for individual private action and choice, and include in their measurements of economic freedom an area that captures the degree to which governments are capable of generating such conditions.

Notwithstanding the previous discussion, the bulk of the theoretical concept of economic freedom deals with the activities that governments should refrain from. Generally, we can think of government intervention in economic affairs in two distinctive ways: regulation and taxation. Regulations

limit the full exercise of the rights derived from private ownership by restricting certain activities or imposing additional requirements on private economic relationships. Taxation directly extracts resources from private individuals and place them under public administration. Both cases generate distortions in the functioning of the market mechanism by affecting relative prices and/or quantities. Given the difficulty in assessing the degree of governmental intervention through regulation in all sectors and activities of modern economies, the literature has focused on just a few especially relevant markets. In particular, both Fraser's and Heritage's indexes give a prominent importance to the level of public regulation of international trade and investment, labor markets, and financial markets. Considering countries with less restrictive regulations on these areas as more economically free is not controversial. Instead, a consensus is less obvious on the valuation of government taxation and how it relates to economic freedom. The two measurement projects mentioned include an area that captures the fiscal size of government, and give it a significant weight (20% for Fraser's, 25% for Heritage's index). Government taxation reduces the resources allocated by private individual decisions and distorts relative prices and thus the functioning of the market mechanism, they argue. As a consequence, higher levels of overall taxation are assumed to reduce economic freedom. The opposition to this view is usually based on an empirical regularity. When we look at the disaggregated data provided by economic freedom indexes, government size is positively correlated with the rest of the areas (market institutions and regulations). That is, we observe that countries with high economic freedom scores in terms of low market regulations and high protection of property rights, usually present relatively large governments in fiscal terms. Given this evidence, the question posed by [Leschke \(2000\)](#) or [Ott \(2018\)](#) , among others, is whether government size belongs to the concept of economic freedom, or else it should be removed. The discussion has one aspect that is worth examining. The removal of government size from the conceptualization of economic freedom is based on the idea that at least some fiscal activities carried out by the government can foster economic freedom (besides those already mentioned to secure property rights and the functioning of markets). That is, government taxes and spending can generate economic opportunities for some individuals. This argument resembles a positive conception of freedom as the capability to choose, epitomized by the writings of A. Sen ([Sen \(1999\)](#)). The problematic aspect of this view is that radically contradicts the premise of the overall idea of economic freedom, which is based on a negative conception of freedom as absence of coercion. If the argument is accepted in relation to the size of government, then the same logic would require to dismiss other areas of the concept such as tariffs on international trade, taxes on financial transactions, or specific government regulations that may be considered as opportunity enhancing for some individuals. It would seem that what is behind the rejection of including government size in a measure of economic freedom is to purge the concept, keeping only public interventions that are viewed as desirable, efficient, or positive. So, economic freedom would only be hampered by undesirable government interventions, however these can be identified. But then we would be trying to conceptualize a very different object ([Murphy \(2022\)](#)). Not to what extent economic activity is guided by free individual choices and the market mechanism, but whether government interventions can improve economic outcomes. The fact that

authors such as Friedman and Hayek believed that less government involvement in the economy was the surest path to sustained economic growth and prosperity is ultimately a hypothesis that must be empirically settled, but clearly does not invalidate the formative construction of the concept. Consequently, government size appears to fit well in a conception of economic freedom based on the idea of negative liberty applied to economic aspects of life.

3 Measurement

The variety of theoretical definitions of our three concepts of interest (rule of law, democracy and economic freedom) reviewed in the previous section have an immediate counterpart in the different measurement projects that have tried to quantify such concepts. The empirical academic literature, especially in economics, has most of the times obviated the stark differences in underlying conceptualization of the ideas of democracy, rule of law or economic freedom, and just used a given index or indicator based on its time or country coverage, or other practical reason. Nonetheless, it is clear from the previous discussion that an index of, say, rule of law, based on a thin and purely formal definition will significantly differ from another with a broad and substantive conception that captures several individual rights, and the results of an empirical investigation that tries to identify the causes and/or consequences of such a measure are likely to differ in each case. For this reason, it is of primary importance to have a clear picture of the theoretical definition of a concept embedded in a given quantitative measure, and this is precisely the purpose of this section.

The proliferation of quantitative measures of different social science concepts has been outstanding in the last few decades, and therefore it is not possible to cover every single index on the rule of law, democracy or economic freedom in this paper. I have anyhow tried to cover the most widely used indexes available on each dimension of freedom, and provided references to previous studies that have compared empirical measures of each of our concepts of interest. The focus of this section is to match each index with one of the theoretical conceptualizations described above, and thus the discussion on other issues related to the indexes construction (coding, scaling, aggregation, etc.) is only briefly mentioned. As will become apparent in the next subsections, the differences among empirical measures is not irrelevant both between and within dimensions of freedom, which should call the attention of future empirical studies, that should take their choice of measures seriously.

3.1 Rule of Law Indexes

I will analyze a total of eight rule of law measures, that include those most widely used in the empirical literature in economics and political science (World Bank's Worldwide Governance Indicators or PRS's International Country Risk Guide), as well as newer measures that represent a clear improvement in terms of theoretical and technical soundness (World Justice Project's or V-Dem's indexes). This is not the first paper to compare different measures of rule of law. Previous examples

include [Versteeg and Ginsburg \(2017\)](#) or [Moller and Skaaning \(2011\)](#). Nonetheless, the analysis of this section covers a larger set of indicators compared to [Versteeg and Ginsburg \(2017\)](#), that only survey four indexes, and includes the World Justice Project's and V-Dem's indexes that were not yet available when [Moller and Skaaning \(2011\)](#) was published. Conversely, besides a brief review of the general characteristics of each measurement project, I will mainly focus on the conceptual definition of the rule of law embedded in each index, and thus in that sense the scope of this section is narrower than similar papers that provide an in depth treatment of other topics related to the indexes construction (scaling, aggregation, coverage, coding, etc.).

The eight rule of law measures studied below are: the World Justice Project Rule of Law Index (WJP), the Bertelsmann Political Transformation Index (BTI RoL), the Worldwide Governance Indicators Rule of Law Index (WGI), the V-Dem Rule of Law Index (V-Dem RoL), the Political Risk Services' International Country Risk Guide, the Fraser Institute Economic Freedom Index Area 2 (FI RoL), the Heritage Foundation Economic Freedom Index Rule of Law Area (HF RoL), and Freedom House Rule of Law area (FH RoL). In the following paragraphs, I briefly comment on the main characteristics and differences among indexes in terms of coverage across time and space, data sources, scaling and aggregation of each index. Detailed expositions of the theoretical definitions of the concept of rule of law implicit in each of them are the focus of this paper, and the subsequent subsections are devoted to this task. A schematic summary of all this information is provided in table 1.

Coverage. Efforts to quantify the rule of law as an isolated concept are relatively recent, and thus most of the indexes analyzed only start in the late 1990's or later. Most notably, the WJP index is only available since 2012, and BTI index since 2006 (and only every other year). Freedom House index started being published in the 1970's, but disaggregated data on the different sub-areas of the index such as the rule of law are only available since 2006. The WGI and HF RoL indexes provide somewhat greater time coverage, as they are both available since 1996. The ICRG series are available for all years since 1984, and Fraser Institute's Legal Area since 1970, but only every 5 years up until the year 2000, and annually since then. Regarding countries covered by each index, the WJP and BTI indexes stand out for their significantly smaller coverage, but each in a particular way. The latter only focuses on non-OECD countries, and thus excludes all developed nations of the western world. The former instead misses many developing and least developed countries, due to the difficulties of obtaining comparable high quality data. Therefore, the set of countries included both in the BTI and WJP index is really limited. All other measures cover most of the independent countries of the world with a relevant level of population, and the differences observed in the last column of table 1 mainly reflect the inclusion in some indexes of territories and other non-independent areas of the world (WGI, FH).

Data and Coding. Most of the rule of law measures analyzed rely on expert assessments, these being in-house coders or external country experts. This is the case of BTI, V-Dem, ICRG, FI, HF and FH. Some of these measurement projects complement their coding efforts with factual data (i.e. V-Dem) or other indexes assessments (HF, FH). The WGI and WJP indexes clearly differ in the way their raw data is obtained. The former is the only index analyzed that does not directly rely on expert assessments to obtain its scores, but it aggregates information from a large number of sources and indexes into a single indicator. Anyhow, to the extent that other indexes and variables used to generate the WGI RoL indicator rely on expert evaluations, the World Bank measure also indirectly does so. To the contrary, the distinctiveness of the WJP measure of the rule of law lies in the fact that its scores combine country experts evaluations with original mass survey data from the general population. This is a unique characteristic of the WJP index, that may have important implications. In particular, [Versteeg and Ginsburg \(2017\)](#) suggests that their finding that the four rule of law measures it analyzes are very highly correlated is due to the fact that all of them are mainly based on experts assessments. When each index is correlated with the WJP scores based only on mass survey data it finds much lower intercorrelations.

Scale and Aggregation. In terms of scaling, the FH Rule of Law area stand outs as the only clearly ordinal measure, with scores that range from 0 to 16. The rest of the indexes analyzed can be considered as interval measures, even though some subareas in specific indexes are clearly ordinal (BTI or ICRG). When considering each aggregate rule of law measure, we see that all but FH index are calculated by combining several subareas or components by means of an aggregation rule that yields a generally continuous measure. The aggregation rule is simple average or addition in most of the cases (WJP, BTI, ICRG, FI, HF and FH). This choice reflects an implicit assumption about the substitutability of the different components and indicators used to measure the rule of law, as emphasized by [Munck \(2009\)](#) and [Møller and Skaaning \(2014\)](#) among others, but it seems that the generalized use of the arithmetic mean is more an unconscious decision than an intentional one. V-Dem's and WGI's indexes are the only indexes that refrain from simple average to aggregate different indicators, but both are the outcome of sophisticated statistical models, and thus are fully interval measures. Nonetheless, there is always a trade-off between sophistication and transparency, and both WGI and V-Dem indexes have been criticized for this choice.

Conceptualization. Table 1 summarizes the attributes included in the rule of law definition of each measurement project. As we can see, there is ample variability, with fairly broad and substantive indexes such as WJP or BTI, mainly formal measures like V-Dem's, and other indexes clearly focused on aspects clearly related to economic factors such as property rights and enforcement of contracts (WGI or ICRG). Furthermore, these differences are reinforced by the fact that each index may measure the same abstract component using different sources, and is likely to give it a different weight in the overall index. The next subsections analyzes in detail the conceptual definition of the idea of rule of law embedded in each index.

Table 1: SUMMARY OF RULE OF LAW INDEXES

Index	Formal Legal.	Law& Order	Judicial Indep.	Attributes Corrup./ Bureauc.	FH Rights	Civ. Rights	Pol. Rights	Prop. Rights	Scale	Time	Countries ^a
WJP	x	x	x	x	x	x	x		Int. [0,1]	2012-	140
BTI RoL		x	x	x	x				Int. [1,10]	2006- ^b	137
V-Dem RoL	x		x	x					Int. [0,1]	1900-	180
WGI RoL		x	x					x	Int. [-2.5, 2.5]	1996- ^c	214
ICRG		x	x	x				x	Int. [0,100]	1984-	141
FI (Legal)			x					x	Int. [0,10]	1970- ^d	166
HF RoL			x	x				x	Int. [0,100]	1995-	184
FH RoL		x	x		x				Ord. [0,16]	2006-	210

^a Number of countries covered in the last year of available data for each index.

^b BTI scores and indexes are published only every two years.

^c WGI are available for years 1996, 1998, 2000, and annually since 2002.

^d FI data is only available every five years until the year 2000, and annually since then.

3.1.1 World Justice Project Rule of Law Index

The WJP Index defines the rule of law comprehensively (WJP (2022) and Botero and Ponce (2010)) as a durable system of laws, institutions, norms, and community commitment that delivers four basic principles: (1) accountability, (2) just law, (3) open government and (4) accessible and impartial justice . These rather general principles are developed in eight factors, further decomposed in several sub-factors, that provide a much clearer sense of the breadth of the definition of the concept embedded in the Index. The eight factors measured are: (1) Constraints on government powers, (2) Absence of corruption, (3) Open government, (4) Fundamental rights, (5) Order and security, (6) Regulatory enforcement, (7) Civil justice and (8) Criminal justice.² Several factors and sub-factors indicate that the rule of law conceptualization of the WJP index incorporates the idea that the executive power is bound by the law and subject to it. First and foremost, the inclusion of an independent and effective judicial system that limits government power and makes its officials accountable for misconduct (factors 1, 7 and 8). Additionally, factors 2 and 6 further assess that laws and regulations are effectively applied by government officials, avoiding distortions due to corruption, improper influence, unreasonable delays, etc. Factor 5 captures the idea of basic security and compliance with the law of the general population, mainly in relation to limited criminal or violent behavior. Factor 3, open government, is not exactly an assessment of formal legality requirements, but some sub-factors do relate to the publicity and stability of the law. So far, all factors mentioned impose formal requirements on the legal system, and thus fit in well in a rather extensive but formal definition of the rule of law in the spirit of Tamanaha (2012). Nevertheless, the battery of fundamental rights included in factor 4 certainly incorporates a significant load of substantive content in the definition. This area not only contains basic human rights such as the

²The conceptual framework of the WJP Index includes a ninth factor, informal justice, that is not included in the aggregate scores and rankings because of the complexity to measure and assess effectively such unofficial arrangements.

right to life and security of person, absence of torture and procedural rights of the accused, but adds civil and political rights like freedom of expression, religion, assembly and association, or labor rights. The conceptual definition of the WJP rule of law index is therefore substantive and fairly broad, only clearly not measuring property rights and third generation socio-economic rights. Even if the democratic principle is not explicitly included in any factor, the inclusion of political rights and legislative controls on the executive may indirectly favor the scoring of democratic countries.

3.1.2 Bertelsmann Transformation Index

The BTI Political Transformation measure ([BTI \(2022\)](#)) is comprised of five criteria: (1) stateness, (2) political participation, (3) rule of law, (4) stability of democratic institutions and (5) political and social integration. Thus, it includes attributes related to both the idea of rule of law and the idea of democracy. In particular, criteria 1 and 3 are clearly linked to the former, while criteria 2, 4 and 5 to the latter. Given that the index is available at a disaggregated level, I will analyze here only areas 1 and 3, leaving the rest of criteria, as well as the assessment of the overall political transformation index, for section 3.2. Criteria 1 in the BTI Political Transformation measure, stateness, is further decomposed into four indicators that primarily capture the degree to which the state is established in the territory and holds the monopoly of the use of force, accepted by a majority of citizens. It thus measures an elemental notion of rule by law, in which the state is the main actor exercising political power in the country through a basic bureaucratic structure, not seriously challenged by guerrillas, mafias or tribal groups. BTI's political transformation criteria 3, denoted as rule of law, includes four indicators: (3.1) separation of powers, (3.2) independent judiciary, (3.3) prosecution of office abuse and (3.4) civil rights. The first three ensure that the government and its officials are subject to the law, enlarging the underlying definition to what we earlier denoted as safeguarded rule of law. Nevertheless, the final indicator, civil rights, introduces some legal content that situates the concept among the substantive versions. In particular, the BTI codebook enumerates the civil rights subjected to assessment as: personal liberty, right to life and security of the person, prohibition of torture, cruel and inhuman treatment or punishment, protection of privacy, equality before the law, equal access to justice and due process. It is therefore a more restricted set of individual rights compared to that of the WJP Index, mainly focused on fundamental human rights, specifically not including property rights nor political rights. Summarizing, if we consider criteria 1 and 3 together, the implicit definition of the rule of law embedded in the BTI political transformation index could be assimilated to the liberal rule of law conceptualization, but certainly thinner than the ideal of classical liberal authors due to the exclusion of property rights.

3.1.3 V-Dem Rule of Law Index

The V-Dem project generates a Rule of Law Index considering just 15 of the more than 400 available indicators. According to the V-Dem codebook ([Coppedge et al. \(2021\)](#)), the index tries to answer

the question: To what extent are laws transparently, independently, predictably, impartially, and equally enforced, and to what extent do the actions of government officials comply with the law? The indicators used in the index construction are related to three distinctive attributes: formal legality requirements, an accessible and independent judiciary to which the executive is subject, and corruption practices among public officials (of all branches of state power). The absence of any kind of substantive requirement clearly situates the implicit rule of law definition within formal theories. None of the indicators impose any sort of democratic legitimacy of the legal system, which makes a high score in the index compatible, at least theoretically, with any kind of political regime. Therefore, the conceptual definition of the V-Dem measure almost perfectly matches those of jurists such as Raz, Fuller or Tamanaha described in section 2.1, with a significant emphasis on formal requirements and mechanisms that guarantee that all governmental actions are bound by the law.

3.1.4 Worldwide Governance Indicators

The World Bank's WGI are organized in six dimensions that capture different aspects of the overarching concept of governance (Kaufmann et al. (2010)). One of them is labeled as "rule of law", but it is evident that other dimensions such as "corruption" and "government effectiveness" fit well into the definitional conceptualizations of the theoretical literature discussed in section 2. The WGI's rule of law dimension measures "perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence". Complementing this rather diffuse definition with a detailed assessment of the sources and individual variables used in the construction of the aggregate rule of law indicator allows to differentiate three main attributes that the concept tries to capture. First, an idea of law and order and limited criminal activity. Second, an efficient and accessible judiciary principally capable of enforcing contracts and, to a lesser degree, independent from political power. Third, but probably the nucleus of the concept, property rights protection, in particular against public expropriation. The manifest policy-oriented focus of the WGI, as well as the background of the authors of the project, explain both the definitional vagueness and the placement of the focal point in attributes usually identified by economists as the most important links between the rule of law and economic outcomes. It is therefore hard to clearly match up the WGI's implicit definition of the rule of law with any theoretical conceptualization described above. On the one hand, the emphasis on property rights places the concept within the substantive liberal definitions, but there is no mention to any other individual right in the classical liberal tradition. On the other, the weight put on the requirement that government officials are bound by the law is markedly lower than that of the measurement projects previously described. In this sense, it is important to notice that the control of corruption and the quality of the bureaucracy are measured by the WGI as distinct dimensions from the rule of law. Anyhow, the potential restructuring of the different dimensions is not as simple as with

other indexes such as BTI or V-Dem, due to the use of a sophisticated aggregation methodology based on Unobserved Components Model. Overall, we can conclude that the WGI Rule of Law dimension is clearly marked by economic considerations, and does not fully capture any of the theoretical definitions of the concept of rule of law described in section 2.1.

3.1.5 International Country Risk Guide

The International Country Risk Guide political risk category assesses the political stability of the country, based on 12 components (PRS (2022)). Most of them are related to different dimensions of the rule of law, with a special focus on the control of violence and absence of conflict. At least 6 areas of the index, which jointly receive a 48% weight, capture some form of conflict risk. These are areas (D) internal conflict, (E) external conflict, (G) military in politics, (H) religious tensions, (I) law and order, and (J) ethnic tensions. At least two areas, corruption (F) and bureaucracy quality (L), measure the degree to which government officials impartially and efficiently apply the laws and regulations in place. The index also assesses the quality and popular support of the democratic institutions of the country, with the areas on government stability (A) and democratic accountability (K). Finally, areas B and C are related to the economic situation, each receiving a 12% weight on the overall index. The former, socio-economic conditions (B), is further decomposed in three sub-components: unemployment, consumer confidence and poverty. It is thus an area that does not fit well within any conceptualization of the rule of law. Instead, area C on investment profile has been used extensively in the empirical economics literature as a proxy for the rule of law, and specially as a measure of property rights protection. The three subcomponents of the area (expropriation risk, profits repatriation and payment delays) are all related to the protection and security of property rights, with a special focus on foreign investment reassurance. Altogether, the aggregate ICRG political risk index embeds a broad formal conception of the rule of law, including attributes of democratic legitimacy. Anyhow, the weighting scheme used to calculate the index clearly overemphasize the most basic elements of the rule of law, that relate to the control of violence and general stability of political power. The relatively low importance given to the independence, efficiency and accessibility of the judicial system, incorporated partially on the areas of law and order and democratic accountability, contrasts with the relevance given by other measurement projects. The theoretical ambiguity of the ICRG measure is most likely due to the fact that its main purpose is to be used as a risk assessment tool for private companies considering investments overseas. Anyhow, the disaggregated availability of area scores make it possible to construct a more consistent measure of the rule of law, with an improved level of theoretical soundness, or use specific areas or sub-components as empirical proxies.

3.1.6 Rule of Law Sub-Components included in other Measures

Some indexes reviewed in later sections, even if their main focus is placed on a different or broader aspect of freedom, contain sub-areas that target the rule of law. For instance, the most widely used indexes of economic freedom (Fraser's and Heritage's indexes) both include an area that evaluates the characteristics of the legal system. The Freedom in the World index produced by Freedom House, probably the broader index of socio-political freedom across countries usually used as a measure of democratic institutions, also devotes a sub-area to the rule of law. I will thus circumscribe the evaluation in this subsection to the relevant areas of each of them, and leave the complete assessment of the aggregate indexes to the more fitting sections of economic freedom (Fraser and Heritage indexes) and democracy (Freedom House index).

The legal areas included in the indexes of economic freedom produced by the Fraser Institute and the Heritage Foundation are extremely similar, both having a focal point in the economic effects of the legal system, and many times use the same underlying sources ([Gwartney et al. \(2022\)](#), [Miller et al. \(2021\)](#)). On the one hand, the Legal System and Property Rights area of the Fraser index (area 2) comprises 8 sub-areas, concentrated in two specific aspects: the judiciary and property rights. Sub-areas 2.A, 2.B and 2.E measure the independence, integrity and efficiency of the judicial system, therefore capturing the control aspect of the rule of law. On the other, areas 2.C, 2.F and 2.G are directed to assess the degree of protection and security of property rights. Finally, areas 2.D and 2.H relate to the involvement of the military in politics and the reliability of the police, somehow gauging whether the state armed personnel is adequately controlled by the civil political power. On the other hand, the Rule of Law area of the Heritage Index of Economic Freedom is formed by three components: property rights, judicial effectiveness and government integrity (corruption). This last component represents the main difference between both indexes, in particular the higher weight given to government corruption in the overall area score in the Heritage index (33%) compared to Fraser's index, that only includes a measure of corruption within the sub-area of impartial courts, and just as one of several averaged indicators. Nevertheless, the overall assessment of the two (sub-) indexes in terms of their theoretical definition is similar. Namely, we can consider both of them as formal *economic* conceptions of the rule of law, as they just measure whether governments and citizens are bound by the law in economic affairs.

The situation regarding the Freedom House Index is exactly the opposite, as this measure takes a broad and comprehensive view of freedom ([Freedom House \(2022\)](#)). The aggregate Freedom House score, that merges political rights and civil liberties areas, can be identified with the broadest substantive rule of law conceptualization. That is, it could serve as an empirical counterpart of the social democratic rule of law definition, as it encompasses significant democratic requirements, a wide battery of political and civil rights, and even socio-economic rights in the form of equality of economic opportunities. Nonetheless, a specific area of the civil liberties component of the index provides a narrower notion of the rule of law (area F). This area is formed by 4 sub-areas: independent judiciary, due process, absence of violence from government or citizens, and equal

treatment. The inclusion of substantive individual rights situates the implicit conception of the index within substantive theories of the rule of law. Anyhow, as happened with the BTI measure, it is a rather thin version given that such rights mainly concern fundamental procedural rights of the accused and equal treatment of minorities, but exclude the bulk of the so called liberal rights of expression, religion, property, movement, etc.

3.2 Democracy Indexes

The number of indexes and measures devoted to assess political regimes is significantly larger than the case of rule of law. [Krieger \(2022\)](#) lists more than 20 different democracy indexes, and the V-Dem project alone already produces five different democracy measures (each based on a different conceptualization). Anyhow, some have a notably higher impact than others in academic and/or policy circles. Here I will only consider a few of the existing democracy indexes, chosen for its generalized use in academic research (i.e. Polity, Freedom House), or their theoretical soundness (V-Dem, Lexical, etc.). Again, I will only briefly review the main characteristics of each of them (coverage, scaling, coding, etc.), and put the focus on the conceptual definition of democracy of each project.

The ten democracy indexes analyzed are the Polity V index (POLV), the Political Rights and Civil Liberties indexes produced by Freedom House, as well as their combination, the Bertelsmann Political Transformation Index, the Polyarchy and Liberal Democracy Indexes constructed by the V-Dem Project, the Lexical Index for Electoral Democracy (LIED), the Democracy-Dictatorship index (DD) originally created by [Alvarez et al. \(1996a\)](#), and the binary measure created by [Boix et al. \(2013\)](#) (BMR therein). Some notable indexes left aside for different reasons include the Economist Intelligence Unit measure, Vanhannen’s Competition and Participation index, or the Worldwide Governance Indicator’s Voice and Accountability index.³

Coverage. The variability in terms of time coverage among the different indexes is very significant. Some measures go back in time more than a century (POLV, V-Dem, LIED and BMR), while others cover less than two decades (BTI, or the disaggregated FH areas). The Freedom House ordinal measures are available every year since 1972, while the DD index starts in 1945, thus both measures cover well the third wave of democratization. In terms of countries, all indexes analyzed cover virtually every independent nation in the world, except for BTI which restricts coverage to non-OECD countries, and some indexes even include not fully independent territories.

Data and Coding. All democracy indexes analyzed in this paper rely on expert assessments and/or in-house coders as the main source of information to generate their respective scores. The

³For extensive treatments and comparisons of democracy indexes see [Coppedge et al. \(2017\)](#), [Møller and Skaaning \(2012\)](#) or [Munck and Verkuilen \(2002\)](#).

main difference between them lies in the number of experts/coders consulted, as well as the processes to homogenize and ensure the consistency of the scoring process across time and space, which has historically been the source of criticism of any measurement project. The V-Dem indexes represent a clear improvement in this sense compared to previous measures such as Freedom House or Polity V, as it is the only index that effectively relies on more than one experts assessment to generate its country scores. To be sure, some indexes complement coders evaluations with factual data, such as LIED, V-Dem or DD, mainly on suffrage related issues.

Scale and Aggregation. As table 2 reports, most of the indexes analyzed are ordinal (POLV, FH⁴, LIED) or binary (DD, BMR). Only V-Dem and BTI's indexes can be considered interval measures. As we saw with the rule of law indexes, the aggregation process in those indexes that are formed of different components is usually additive or simple average (POLV, FH, BTI). Only V-Dem's indexes take an explicit stand on the complements/substitutes relation between components, but the final solution is somewhat a compromise between both polar cases. In particular, both the polyarchy index and the liberal democracy index produced by the V-Dem project are calculated as a weighted average of an additive and a multiplicative version, thus not fully embracing or justifying one choice. The two binary measures considered, BMR and DD, require all attributes included in their respective definitions for a country to be considered as a democracy, or equivalently, treats all attributes as necessary conditions, ruling out any possible substitutability between them. A similar approach is followed by LIED, but further imposing that each step in the ordinal ladder is a requirement for the next, following a logic of necessary and sufficient conditions.

Conceptualization. The heterogeneity in terms of the theoretical conceptualizations of democracy of the ten indexes analyzed is apparent in table 2, and will be described in detail in the following subsections. Just to give an example, the DD index only requires the existence of minimally contested elections to consider a country as democratic, while the aggregate Freedom House index includes attributes as far from the core elements of democracy as the state's involvement in the economy. The clear differences in the definition of democracy embedded in the most popular indexes, together with the simple aggregation rules generally used, suggest that the choice of democracy index used in empirical research is not irrelevant, and some results may not be robust to changes in the empirical measures selected. To support this hypothesis, the following subsections provide a detailed assessment of the theoretical definition of democracy of each index analyzed, and link them to the canonical democracy conceptions reviewed in section 2.2 above.

⁴Freedom House reports area scores since 2006, and thus it is possible to generate a measure with range 0-100 for the aggregate index that combines Civil Liberties and Political Rights indicators, which can be considered as an interval variable. Anyhow, the limited time coverage of such a measure has pushed most researchers to use the ordinal 2-14 index reported in table 2.

Table 2: SUMMARY OF DEMOCRACY INDEXES

Index	Attributes						Scale	Time	Countries ^a
	Elections	Suffrage	Ex. Constraints	Political	Civil	Social			
Polity V	x		x	x			Ordinal [-10,10]	1800-	182
Freedom House	x	x	x	x	x	x	Ordinal [2,14]	1972-	210
Civil Liberties			x		x		Ordinal [1,7]	1972-	210
Political Rights	x	x		x			Ordinal [1,7]	1972-	210
BTI (area 2)	x	x		x			Interval [1,10]	2006- ^b	137
V-Dem									
Polyarchy	x	x		x			Interval [0,1]	1900-	180
Liberal Dem.	x	x	x	x	x		Interval [0,1]	1900-	180
LIED+	x	x		x			Ordinal [0,6]	1800-	200
DD Index	x						Binary {0,1}	1946-2018 ^c	212
BMR Index	x	x					Binary {0,1}	1800-2020	219

^a Number of countries covered in the last year of available data for each index.

^b BTI scores and indexes are published every two years.

^c The original dataset produced by Alvarez et al. (1996b) covered 141 countries and up to 1990. Cheibub et al. (2010) extended the coverage to 199 countries and the period 1945-2010. Finally, Bjørnskov and Rode (2020) extends the dataset up to the year 2018, 196 countries and 16 territories.

3.2.1 Polity V

The Polity V Project provides two measures of authority patterns, institutionalized democracy and institutionalized autocracy, which are measured separately under the theoretical assumption that countries may exhibit mixed authority qualities at any point in time (Marshall and Gurr (2020)). Anyhow, the dimensions measured in both of them are the same, and so in definitional terms we can consider the two indexes jointly. Furthermore, as is recognized by the Polity team, most users of their data in quantitative and empirical research have combined both indexes in a single indicator by subtracting the autocracy score from the democracy score, and since the fourth version of the project this variable has been included in the database, denoted as “Polity”. The Polity measure of democratic institutions captures three distinct dimensions: (1) competitiveness of political participation, (2) openness and competitiveness of executive recruitment, and (3) constraints on the chief executive. The first two are clearly linked to the core of the democratic principle, in the sense that government officials are selected by means of a competitive struggle for popular support. The first institutional characteristic, competitiveness of political participation, measures the degree of permitted political competition and opposition and thus includes individual freedoms of expression, association, assembly, etc., that are necessary conditions for the effective expression of preferences. Surprisingly, voting rights (active suffrage) are not specifically evaluated, giving rise to controversial aggregate scores (i.e. the USA attains the maximal aggregate score throughout the 20th century and before, despite the significant restrictions in political participation by gender, race, income levels, etc.). The second dimension measured by the Polity index is linked to passive suffrage, that is, whether all citizens are in principle permitted to compete for executive office in equal terms, and whether changes of power follow clear established rules. Therefore, the two aspects taken together seem to situate the implicit definition of democracy of the Polity index in between the concepts of electoral democracy and polyarchy, but clearly not perfectly fitting in any of them. On the one hand, the index includes aspects of Dahl’s guarantees (political rights of expression,

assembly, etc.) but explicitly excludes others such as a free and independent press. On the other, minimal definitions of electoral democracy emphasize the element of active suffrage (inclusiveness), which is not distinctively captured by the index. Furthermore, the third authority characteristic measures in the Polity index, executive constraints, further complicates the identification of their conceptualization of democracy. The Polity codebook explains this element as referring to the extent of institutionalized constraints of the decision-making powers of the executive by different accountability groups. In particular, both judicial and legislative constraints are included in this dimension without clear differentiation. This additional component seems to capture some features of the concept of rule of law, regarding the control of arbitrariness in the exercise of power, mainly in relation to judicial independence. This view can rationalize the use of the executive constraints component of the index as an isolated variable in several empirical studies on the causes and effects of the rule of law (refs.). Overall, it is hard to clearly identify the Polity index with any of the theoretical conceptualizations of democracy (or rule of law) described in section 2, as it partially measures some distinctive attributes but ignores others (most notably voting and other individual rights).

3.2.2 Freedom House Index

The Freedom in the World Report published annually by Freedom House ([Freedom House \(2022\)](#)) produces two distinct indexes, Civil Liberties and Political Rights, that are then combined to categorize countries as Free, Partly Free and Not Free, but also to generate a combined score that has been widely used in empirical research as a measure of liberal democracy. Nonetheless, taken together the two indexes embrace a comprehensive view of freedom that even includes aspects that lie far from even the broadest definition of liberal democracy proposed by political theorists. Analyzing each index separately we can better match the implicit conceptualization used by Freedom House to the theoretical definitions of democracy examined above. The Political Rights index comprises three areas: (1) electoral process, (2) political pluralism and participation, and (3) functioning of government. These are further disaggregated, into 3-4 specific questions each, that allow to more precisely identify the attributes assessed. The first area measures the characteristics of the electoral mechanism, in particular whether the head of the executive and the legislative body are appointed by free and fair elections with ample suffrage, regulated by a clear legal framework. The second area captures the degree of competitiveness and opposition allowed, including individual rights of political association and participation guaranteed to all segments of the population, and the absence of political violence. Finally, the third area is centered around the degree to which elected officials effectively determine policies without undue interference from non-elected powers (the military, mafias or gangs, foreign actors, etc.), whether such policies are not distorted by corrupt practices, and the level of openness and transparency of governmental action. Therefore, the Political Rights index of Freedom House appears to cover the attributes of electoral democracy, but falls short of the broader Dahlian conceptualization due to its incomplete consideration of political

rights, in particular in regard to the protection of a free and independent press. This last element is extensively covered in the Civil Liberties index, together with other individual freedoms. The inclusion of corruption in an index that mainly focuses on the electoral core of democracy is also unconventional. Last but certainly not least, it should be noticed that no measure of executive constraints is contemplated, neither legislative nor judicial constraints, which makes the democracy conceptualization contained in the Political Freedom index fairly thin.

The Civil Liberties index is composed of four distinct areas, each comprising a series of sub-areas, that cover a broad battery of individual freedoms: (1) freedom of expression and belief, (2) association and organizational rights, (3) rule of law, and (4) personal autonomy and individual rights. The first area covers different aspects of free expression rights for individuals and collective institutions, prominently freedom for the media and educational institutions (schools and universities), and religious freedom. The second area includes freedoms of assembly and to form civil organizations (including unions), with an special emphasis on the degree to which such associations are free to participate in the political debate and carry out scrutiny of the executive. These are therefore individual freedoms clearly connected to the democratic process of formulation and expression of political preferences by citizens. Both areas comprehend the attributes that were lacking in the Political Freedom index to complete Dahl's conceptualization of polyarchy. The third area, rule of law, has been already analyzed in section 3.1.6, consisting on a somewhat thin substantive formulation of the rule of law. Finally, the last area encompasses a series of additional individual rights in the liberal tradition, such as freedom of movement, protection of property rights, civil rights related to marriage and family decisions, etc. If one concern can be expressed, is the rather unconventional inclusion of equality of economic opportunity considerations is the last sub-area of the index, that deals with aspects such as whether government action favor or hinder social mobility, the degree of market competition in the economy, or the extent to which revenues from state industries benefit the general population. Even if these aspects are similar to the third generation socio-economic rights mentioned before, there is a fundamental difference in considering them as individual rights or only as contingent government policies, and thus the temptation to identify the conceptual construction of the Civil Liberties index with a social democratic rule of law is not untroubled. Anyhow, this last sub-area only represents an 8% of the Civil Liberties index, which lessens the potential theoretical concerns. Besides this last caveat, the Civil Liberties index produced by Freedom House meticulously covers the bulk of individual rights and freedoms in the classical liberal tradition. As a consequence, when considering the aggregate Freedom House measure that combines the Political Freedom and the Civil Rights indexes, we obtain a broad measure of liberal democracy in the spirit of O'Donnell.

3.2.3 Bertelsmann Transformation Index

As mentioned in section 3.1.2, the Political Transformation Index comprises five areas that combine rule of law and democratic considerations ([BTI \(2022\)](#)). Taken together, we obtain a fairly broad

conceptualization of liberal democracy. Anyhow, focusing on areas 2, 4 and 5, we obtain a more restricted view of democracy. Area 2, political participation, includes measures of free and fair elections, effective power to govern, and the eminently political individual rights of assembly, association, and expression. That is, this area mainly covers the eight guarantees of a Dahl’s definition of polyarchy, and thus the conceptual framework is very close to that of the V-Dem index reviewed below. Areas 4 and 5 deal with the stability and general acceptance of democratic institutions, considerations do not try to capture the institutional political architecture of the country, but rather the degree to which such a legal framework is solid and well established. The level of political polarization or popular approval of democratic institutions may pose a threat to the survival of a democracy in the near future, but do not disqualify the system as undemocratic. Consequently, area 2 in the BTI Political Transformation Index, by itself, captures well the definition of polyarchy, in which not only the electoral component is required but also the protection of political rights. If area 2 is combined with areas 1 and 3 (stateness and rule of law), we obtain from the BTI a measure of liberal democracy that also ensures civil liberties, an independent judiciary, etc. An important omission of this broader measure of liberal democracy is the protection of property rights, which is included in the BTI Economic Transformation index.

3.2.4 V-Dem Democracy Indexes

The V-Dem project acknowledges the variety of democracy conceptualizations produced by the political science literature, and summarizes them in seven key principles: electoral, liberal, participatory, deliberative, egalitarian, majoritarian and consensual (Coppedge et al. (2021)). The former is treated as fundamental for any conceptualization of democracy, its very core, and thus includes the minimal requirements of a system that may receive that label. Combining the electoral principle with each of the other ones produces six different democracy conceptualizations, complementing the electoral core with additional requirements emphasizing different facets. Among these broader definitions, I will only review the liberal democracy conceptualization, as it is the one most closely comparable to the other measurement projects analyzed.

The V-Dem Electoral Democracy index is intimately linked to Dahl’s conceptualization of polyarchy, as is recognized by the project leaders and documentation. It tries to capture Dahl’s eight guarantees through five distinct areas: (1) Freedom of expression and alternative sources of information, (2) freedom of association, (3) suffrage, (4) clean elections and, (5) elected officials. Each area comprises a series of indicators that comprehensively assess each attribute. Distinctive features of the index include the importance given to the freedom of the press in area 1, and the consideration of civil society association rights, in addition to political parties, in area 2, both only partially included in other measurement projects. Even if aggregation issues are not the focus of this review, it is worth mentioning the approach followed by V-Dem’s Electoral Democracy index, as it clearly differs from the simple additive (or average) method followed by BTI, Freedom House or Polity V. Similar to these, V-Dem offers an additive index that merely averages the scores ob-

tained in the five areas, implicitly assuming perfect substitutability among the different aspects measured, but also calculates a multiplicative electoral democracy index as the five-way product of the scores, that captures some degree of complementarity between them. Furthermore, the most widely used V-Dem index (polyarchy) combines the additive and multiplicative approaches calculating the average between both, as a compromise between the family resemblance and necessary conditions logics represented in each aggregation rule.

The V-Dem's Liberal Democracy index combines the Electoral Democracy index (polyarchy) together with a liberal component index. The latter contains three areas: (1) Equality before the law and individual liberty, (2) judicial constraints on the executive, and (3) legislative constraints on the executive. The first area combines attributes of formal legality (transparent laws with predictable enforcement, rigorous public administration) with an array of individual rights in the liberal tradition such as freedom of religion, of movement and, most saliently, property rights for men and women. Recall that political individual rights of expression and association are already accounted for in the electoral component index, and thus the liberal democracy index embodies a rich set of individual negative rights. Areas 2 and 3 of the liberal component deal with the constraints on executive power brought about by the principle of separation of powers. In particular, judicial constraints measure the degree of independence of the judicial branch and whether the executive complies with its decisions. Legislative constraints mainly refer to the control and accountability functions performed by the legislature, by means of questioning, investigating and overseeing of the executive actions. Taken together, judicial and legislative constraints produce a system of checks and balances among branches of state power that ensures that all governmental power complies and abides by the law, and respects fundamental individual rights of all citizens. In theoretical terms, the concept of democracy embedded in V-Dem's Liberal Democracy index is close to the broad conception of O'Donnell, which adds liberal civil rights and the rule of law to an already thick electoral core in the spirit of Dahl's polyarchy.

3.2.5 Lexical Index of Electoral Democracy

The Lexical Index of Electoral Democracy (LIED) is theoretically grounded in the minimalist definition of democracy usually identified with [Schumpeter \(1950\)](#), focused on the electoral core of democracy, and thus abstracts from neighboring concepts such as civil rights, the rule of law or executive constraints. Anyhow, the main distinction between the Lexical index and the previous measures of democracy is the Aristotelian approach used in its construction, based on the operationalization of electoral democracy as a series of necessary and sufficient conditions arranged in an ordinal scale. That is, the proponents of the index first identify the constitutive elements or attributes of electoral democracy, and then order them so that each additional element requires the fulfillment of all the previous ones, following a cumulative fashion ([Skaaning et al. \(2015\)](#)). In particular, the Lexical index comprises seven levels (six conditions), given by: (L0) No elections, (L1) No-party or one-party elections, (L2) multiparty elections for legislature, (L3) multiparty elec-

tions for legislature and executive, (L4) minimally competitive, multiparty elections for legislature and executive, (L5) minimally competitive, multiparty elections with full male or female suffrage for legislature and executive, and (L6) minimally competitive, multiparty elections with universal suffrage for legislature and executive. As we can see, the conceptual scope of the index is extremely narrow, not considering any kind of individual rights besides voting rights in the last two levels. In an extended version of the index, denoted as LIED+, the authors have included an additional level in which they consider political freedoms of expression, assembly and association, generating an extra level analogous to the concept of polyarchy. The main contribution and usefulness of the index is that it performs a classificatory function, in the sense that each country-year observation is identified with a theoretically clear regime-type, but also discriminatory as it spots differences between political regimes that distinguish the degree to which they possess the core attribute of electoral democracy. In this way, the LIED index captures features of interval measures such as those produced by Freedom House, V-Dem or Polity V, as well as binary indexes (reviewed next).

3.2.6 Democracy-Dictatorship Index

The Democracy-Dictatorship (DD) index is a dichotomous classification of regimes specifically focused on contestation. According to [Alvarez et al. \(1996a\)](#), the purpose is to differentiate regimes that allow at least some regularized competition among conflicting views and interests, from those in which those representing some values or interests hold all political power. In particular, the index classifies as democracies those regimes that fill the positions of chief executive and the legislature by minimally competitive elections. The approach is similar to that of Lexical Index, based on a very narrow conceptualization of democracy that only focuses on the existence of contested elections, with the main difference found in the scale of each index (binary versus ordinal). The classification rule followed by the DD index is based on four requirements that must be satisfied for a country-year observation to be labeled as democratic: (1) The chief executive must be elected directly or indirectly by a popularly elected body, (2) the legislature must be elected, (3) there must be more than one party, and (4) an alternation of power under electoral rules satisfying conditions (1)-(3) must have taken place. The first three conditions require a minimal degree of contestation, and can be seen as a lower bound for democracy standards. The last one is potentially problematic, as the authors acknowledge, giving rise to classification errors for some countries in which elections are held regularly since the democratization process, but these have not yet produced an alternation in office. That is, the DD index might contain divergences in terms of dating the specific year of democratization, which can present lags compared to other indexes that do not assess the outcome of the electoral process, but only the establishment of a democratic set of rules and requirements. Besides this caveat, the classification of regimes should closely mimic the Lexical index categorization if we use the cut-off level of democracy in level 4 (minimally competitive multiparty elections for executive and legislature).

3.2.7 Boix, Miller and Rosato Democracy Index

The measure of democracy proposed by [Boix et al. \(2013\)](#) (BMR) shares important features with the DD Index just analyzed, most markedly the dichotomous approach and the focus in a rather thin definition of democracy. Nonetheless, the conceptualization of democracy used in the BMR Democracy index adds to the contestation requirement a minimal participation threshold. In particular, the index imposes a necessary suffrage condition of at least 50% of the male population to code a country as democratic. The index thus explicitly tries to capture the two dimensions considered by Dahl in his definition of polyarchies, contestation and participation, but noticeably obviates the rest of additional guarantees in the form of political freedoms. Consequently, we can place BMR Democracy Index in the definitional scale slightly above the DD index, around level 5 in the Lexical index, and clearly less demanding than broader measures such as the V-Dem electoral democracy index.

3.3 Economic Freedom Indexes

The debates that lead to the systematic theoretical construction of the concept of economic freedom took place together with the aim to measure it. In particular, the Fraser Institute Economic Freedom in the World Index (EFW) was the outcome of a series of conferences and discussions among leading economists such as Douglass North, Milton Friedman or Lord Bauer (i.e. [Walker \(1988\)](#), [Block and Ahiakpor \(1991\)](#)), that are the foundation of the first annual report published in 1997 ([EFW \(1997\)](#)). Around the same time, the Heritage Foundation launched its Economic Freedom Index that, as I will describe in detail in the next subsections, is conceptually very similar to that of the Fraser Institute. Furthermore, both indexes share an important fraction of the factual underlying data used to generate the indicators, areas and subareas, as well as a similar scaling and aggregation method. All these similarities justify the high correlation between both indexes (0.86 according to table 3), among the highest of all empirical measures analyzed in this paper. The main difference between both economic freedom indexes is found in their time and country coverage. On the one hand, Fraser's Index is available since 1970, although only every 5 years until 2000 and annually since then. Instead, Heritage's measure is reported annually since 1995. In terms of countries included, it is Heritage's Index that clearly offers a more extensive coverage, with 184 countries versus only 166 of Fraser's data, for the year 2022. Nonetheless, the country coverage for earlier years is significantly lower in both cases. For example, HF index is only calculated for 101 countries for the first year of available data (1995), and FI index only covers 124 countries in that same year.

I will only cover the conceptual definition of economic freedom of these two indexes, but it is fair to acknowledge other measurement projects that have tried to capture somewhat similar ideas. Most notably, the Doing Business Report (DB) produced by the World Bank since 2004 ([WB \(2004\)](#)) has been sometimes used as a measure of the degree of economic freedom in a country. Nonetheless, it

is excluded from the analysis of this paper because some variables of the DB dataset are used as raw indicators for the Fraser and Heritage indexes, and because it clearly mixes the concepts economic freedom and rule of law (i.e. scope and efficiency of regulations) that we want to disentangle in this paper. The next two subsections detailed the rather similar conceptualizations of economic freedom rooted in the Fraser and Heritage indexes.

3.3.1 Fraser Institute Economic Freedom in the World Index

The Fraser Institute index of economic freedom is divided in five main areas: (1) size of government, (2) legal system and property rights, (3) sound money, (4) freedom to trade internationally, and (5) regulation of credit, labor, and business. These five areas are further decomposed in a total of 24 components. It is clear that the five areas capture markedly different aspects of the concept of economic freedom. Area 2, on the legal system, focuses on the institutional framework as therefore is closely related to the idea of rule of law, even if mainly applied to economic affairs and transactions (property rights). The rest of the areas do not measure institutional quality, but policies. Area 1 deals with fiscal policy, gauged by the aggregate level of government revenue and spending, top marginal tax rates, government transfers and subsidies or public investment. Area 3 covers monetary policy, measuring the level and volatility of inflation. The inclusion and relevance given to this aspect is definitely a vestige of the economic policy debates in the western world of the 1970's and 1980's, still very active in the collective memory when the Fraser index was introduced, but may seem to have lost relevance in developed countries that have enjoyed low and stable levels of inflation in the last three decades. Nonetheless, for developing and least developed countries, monetary policy is still a political tool and price stability is far from certain. We can rationalize the inclusion of monetary stability as part of the concept of economic freedom in two ways. On the one hand, we can think of it as a public good inserted in the overall institutional framework of a country. In this sense, the provision of a sound and stable currency is part of the preconditions required for the functioning of a modern economy, just as other attributes included in area 2 such as the protection of property rights and the efficient enforcement of contracts. On the other, we can think of inflation as a tax, *seigniorage*, and thus would be related to the size of government and fiscal policy captured in area 1. In any case, the treatment of sound money as a separate area instead of including it in either areas 1 or 2 only influences the weight given to monetary stability in the overall index (20%), which can be justified given the relevance of monetary issues specially among developing and least developed countries. Areas 4 and 5 deal with regulations of specific areas of economic activity. In particular, area 4 focuses on international trade and finance, assessing the level of restrictions in the movement of goods, services and capital across borders, through tariffs, quotas, regulatory barriers, capital controls, etc. Area 5 assesses the level of intervention and regulation in two specially relevant markets, the domestic financial market and the labor market, together with an evaluation of the easiness to set up and run private businesses. Overall, the construction of the index closely matches the conceptualization described in section

2.3, as could be expected given the involvement and advise of economists like Milton Friedman in its early construction.

3.3.2 Heritage Foundation Economic Freedom Index

The Heritage Index of Economic Freedom is conceptually very similar to that of Fraser Institute. We observe some differences in the arrangement of areas and sub-areas, which ultimately generate a slightly different weighting of attributes, and the sources used, but the theoretical rationale of the index and the focus areas are almost identical. The Heritage index is composed of four major areas, each of them decomposed in three sub-components. The four areas are: (1) rule of law, (2) government size, (3) regulatory efficiency and (4) market openness. Area 1 includes the sub-components of property rights, judicial effectiveness and government integrity. Hence, it closely resembles area 2 of the Fraser index, with the addition of an assessment of corrupt behavior by public officials. Also, it echoes important features of the concept of rule of law, but again specifically applied to property rights and economic affairs. Areas 2, on government size, strictly mirrors the corresponding fiscal policy component in Fraser's index. The third area of the index comprises legal restrictions to set up and run businesses, the level of regulation of the labor market, and a sub-area denoted as "monetary freedom", that captures price stability and monetary policy. Finally, area 4 on open markets evaluates the intervention and restrictive government policies in three areas of economic activity: international trade, international investment/finance, and the domestic financial sector. Consequently, the similarity of Fraser and Heritage Economic freedom indexes is palpable. If we were to pinpoint the main differences, probably the lower weight given to monetary stability and the higher importance of international capital movement in the Heritage index, as well as the minimal consideration of official corruption in the Fraser measure, would probably stand as the main candidates.

4 Empirical Comparison Among Measures

The discussion of the previous two sections clearly shows that there are important differences at a conceptual level both within and between the three dimensions of freedom, or vectors of liberal democracy. But, is this distinction empirically relevant? That is, the distinct indexes and measures analyzed capture dimension-specific information, or are they all highly correlated and therefore interchangeable? This section provides an answer to this question, by comparing several indexes of democracy, rule of law and economic freedom. It is not manageable to include in this exercise all indexes reviewed in section 3, so I circumscribe the analysis to three indexes by each dimension, for a total of nine variables. I purposefully include indexes for each dimension that clearly vary in terms of thickness of the embedded conceptual definition. In particular, regarding democracy measures I include the Lexical Index (thinnest), V-Dem's Polyarchy (intermediate), and the aggregate Freedom

House score that comprises both the Civil Liberties and Political Freedom sub-indexes (thickest). In terms of the rule of law, I use the V-Dem's (purely formal), the WGI's (focused on property rights) and WJP's (broadest) Rule of Law indexes. Finally, for economic freedom I use the aggregate Heritage and Fraser Indexes, both fairly broad, as well as Fraser Index's area 4 in isolation, to capture a thinner conception of economic freedom focused only on trade and financial openness.

Table 3 panel (a) shows the correlation matrix between all nine measures for all available countries with data for the year 2018.⁵ The correlation coefficients point to significant differences in the information contained in each measure. First, measures that target a given dimension of freedom correlate much closer with other measures of the same dimension than with measures of the other two dimensions. For example, the Pearson's correlation coefficient of the LIED index of democracy with V-Dem and Freedom House indexes of democracy are 0.89 and 0.86 respectively, while the correlations of LIED index with any measure of rule of law or economic freedom is significantly lower, below 0.52 in all cases except for V-Dem's rule of law index (0.70). A similar pattern is observed for all other measures included in the analysis, or when considering Kendall's correlation coefficient instead of Pearson's. To ease the comparison, the three rows in panel (b) report the average Pearson's correlation of each index with the rest of the variables considered by dimension. It is clear that the correlation of measures within dimension is significantly higher than between dimensions. Furthermore, thicker measures present higher correlations with measures of other dimensions than thinner measures. That is, a broad measure of democracy like that of Freedom House correlates more closely than a thin democracy measure like LIED with indexes of rule of law (0.77 vs 0.58) or indexes of economic freedom (0.59 vs 0.45). This pattern is consistent across measures of any dimension, as shown in the rest of panel (b).

The bottom part of table 3, panel (c), reports the factor loadings of a factor analysis (varimax rotation) for all nine measures considered. The interpretation is similar to the above conclusions. There are three factors with significant explanatory power among all measures (each of them capture close to 30% of the total variance). Moreover, the first factor is clearly prevalent among democracy measures, the second among economic freedom measures, and the third among rule of law indexes. Thicker measures (FH, WJP, FI) present a higher factor loadings of the rest of the factors than thinner measures (LIED or HF), in line with the insights of the correlational analysis above.

Overall, table 3 points to a clear conclusion: different measures of freedom institutions capture different information. Therefore, the choice of conceptual definition and empirical counterpart is not irrelevant, and is likely to affect the quantitative results of an study. The imperfect correlation between measures of democracy, rule of law and economic freedom, especially among thinner measures that are less likely to overlap, suggests that specific countries at a given point in history may present different combinations of the three dimensions of freedom. That is, the process of

⁵I use 2018 data to avoid the differential treatment by each measurement project of the freedom restrictions imposed due to the Covid-19 pandemic. The results are almost identical when using the full set of years available for each measure.

Table 3: CORRELATIONS AMONG EMPIRICAL MEASURES (YEAR 2018)

Panel (a)

	LIED	VDem Polyarchy	FH	VDem (RoL)	WGI (RoL)	WJP	HF	FI	FI (A4)
LIED	1	0,89	0,86	0,70	0,51	0,52	0,43	0,51	0,42
Polyarchy	0,8	1	0,94	0,83	0,66	0,70	0,52	0,57	0,49
FH	0,76	0,8	1	0,85	0,72	0,74	0,55	0,65	0,58
Vdem (RoL)	0,61	0,67	0,69	1	0,86	0,86	0,67	0,68	0,59
WGI (RoL)	0,48	0,50	0,58	0,69	1	0,95	0,79	0,77	0,66
WJP	0,56	0,58	0,64	0,73	0,79	1	0,76	0,70	0,62
HF	0,38	0,39	0,42	0,50	0,60	0,53	1	0,86	0,70
FI	0,47	0,43	0,49	0,52	0,59	0,51	0,68	1	0,85
FI (A4)	0,38	0,36	0,42	0,44	0,50	0,46	0,55	0,69	1

Panel (b)

	LIED	VDem Polyarchy	FH	VDem (RoL)	WGI (RoL)	WJP	HF	FI	FI (A4)
Corrr. With									
Democracy	0,88	0,92	0,90	0,79	0,63	0,65	0,50	0,58	0,50
Rule of Law	0,58	0,73	0,77	0,86	0,91	0,91	0,74	0,72	0,62
Econ. Freedom	0,45	0,53	0,59	0,65	0,74	0,69	0,78	0,86	0,78

Panel (c)

	LIED	VDem Polyarchy	FH	VDem (RoL)	WGI (RoL)	WJP	HF	FI	FI (A4)
Factor Loadings									
Factor 1	0,91	0,88	0,84	0,57	0,28	0,40	0,10	0,25	0,28
Factor 2	0,18	0,22	0,28	0,30	0,45	0,42	0,75	0,93	0,73
Factor 3	0,11	0,36	0,39	0,66	0,83	0,79	0,50	0,26	0,25

Notes: In panel (a), Kendall's correlation coefficients are reported below the diagonal, and Pearson's correlation above the diagonal. Panel (b) reports Pearson's correlation coefficients.

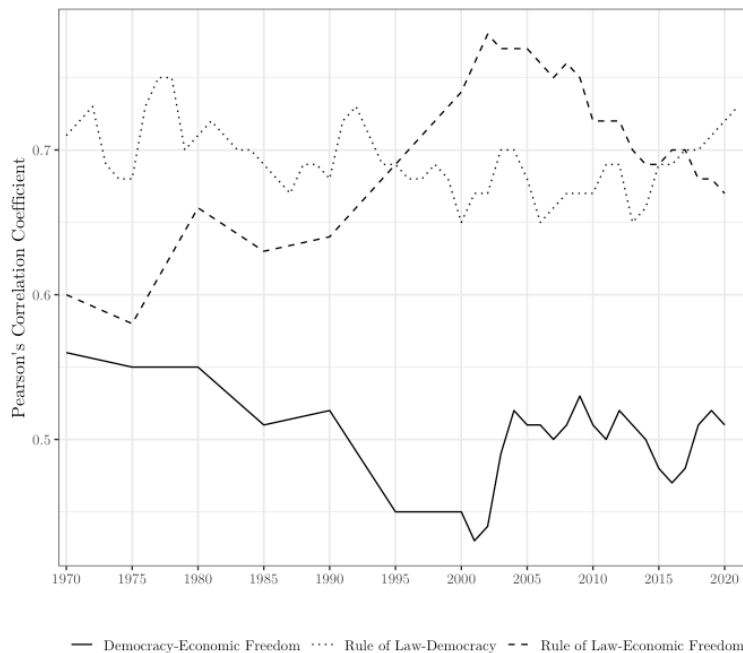
institutional development does not seem to entail a symmetric improvement in our three concepts of interest, but may instead be highly heterogenous. If that is the case, then a battery of immediate positive and normative research questions arise, such as which has been the typical path of institutional development across time and space in terms of the three dimensions, or which combinations of freedom institutions have on average produced better economic and social outcomes.

In order to assess whether the theoretical distinction between democracy, rule of law and economic freedom is empirically relevant, I present here a simple first test by means of two pieces of evidence. On the one hand, I show that the evolution of the association between the three dimensions of freedom has not been constant in the last 50 years. Second, I show that today's distribution of countries in terms of the three dimensions presents very heterogeneous combinations. Both exercises require first to select measures of democracy, rule of law and economic freedom among the ample set of indexes detailed in section 3. In order to avoid overlaps among concepts, I use the purely formal measure of the rule of law provided by the V-Dem project. To measure democracy, I use the Lexical+ variable of the LIED dataset, which mainly focuses on the extension of the suffrage and political rights. Finally, I use the score provided by the Fraser Index Area 4 (freedom to trade

internationally) to measure economic freedom. As explained in section 3.1.6 above, the aggregate score of the Fraser Index includes some components closely linked to the concept of rule of law (i.e. judicial independence), and thus to avoid overlaps I restrict the measure of economic freedom to a thinner version that mainly captures the easiness to carry out economic transactions across borders.

Figure 2 plots the correlations between each pair of measures since 1970 up until the last year of available data. The associations between measures of democracy, rule of law and economic freedom are far from stable over time. Rule of law and economic freedom begin the period of analysis with a Pearson's correlation of 0.6, then increases up to almost 0.8 in the next couple of decades, only to fall again in the last 20 years down to 0.67 in 2020. The correlation between rule of law and democracy experiences the a much flatter trend, starting the 1970's slightly above the 0.7 level and fluctuating in the 0.65-0.7 range since 1980 until 2018, when it crossed again the 0.7 level. The correlation between democracy and economic freedom is by far the lowest among all three pairs of concepts, below 0.55 since 1975, with a minimum value of 0.43 in 2001, and around 0.5 in the last 20 years. The observed volatility of the correlations between dimensions of freedom once again stresses the importance of taking seriously the conceptualization and choice of empirical counterparts of institutional variables.

Figure 2: CORRELATION BETWEEN PAIRS OF SELECTED MEASURES (1970-2021)

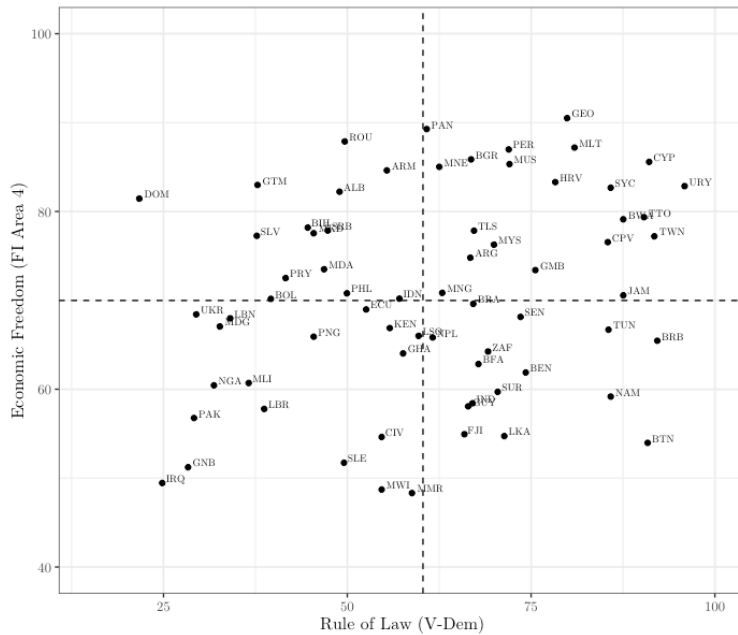


Notes: Democracy measured according to the Lexical Index of Electoral Democracy. Rule of Law measured by V-Dem's rule of law index. Economic Freedom measured by the score in Fraser Institute Index area 4. The latter is only available annually since the year 2000 (before it is reported every 5 years) which explains apparent smaller volatility of the dashed and solid lines in the period 1970-2000.

The last piece of evidence in support of the main thesis of the paper, namely, that all democracies

are not the same, is provided by figure 3. The graph is a scatter plot with the 2018 level of rule of law in the horizontal axis (as measured by V-Dem), and economic freedom in the vertical axis (measured by the Fraser index's area 4), for all non-OECD countries identified as democracies according to the Lexical Index of Electoral Democracy. In particular, the graph includes the 68 non-OECD member countries that received a score of 6 or 7 in the LIED+ index for the year 2018. Dashed lines identify the average levels of rule of law (vertical) and economic freedom (horizontal) for the sample. As we can see, there are clear differences in terms of rule of law and economic freedom levels among the sample of democracies. If all three dimensions of freedom were closely linked, we would expect the 68 democracies to present high level of rule of law and economic freedom. Conversely, the range of values observed is very wide for both dimensions. We observe countries such as Dominican Republic, Guatemala or Slovenia, that combine relatively high levels of economic freedom with low scores in terms of rule of law. Instead, countries like India, Namibia or Tunisia are all located in the bottom right quadrant of figure 3, combining high levels of rule of law with low levels of economic freedom. Among our sample of non-OECD democracies, the joint best performers in rule of law and economic freedom are Cyprus, Uruguay, Malta and Georgia. Instead, electoral democracies such as Iraq, Guinea-Bissau or Pakistan all present very serious deficiencies in terms of both rule of law and economic freedom.

Figure 3: RULE OF LAW AND ECONOMIC FREEDOM AMONG NON-OECD DEMOCRACIES (2018)



Notes: The graph includes the 68 countries that receive a score of 6 or higher in the Lexical Index of Electoral Democracy in the year 2018, and are not OECD-members. Rule of Law measured by V-Dem's rule of law index. Economic Freedom measured by the score in Fraser Institute Index area 4. Dashed lines mark the average levels of rule of law (vertical) and economic freedom (horizontal) for the 68 countries plotted.

5 Conclusions

This paper has presented an in-depth review of the conceptualizations of three dimensions of societies' politico-legal framework. Namely, the rule of law, democracy and economic freedom. The analysis above shows that the theoretical definitions of these three bundles of institutions many times overlap, especially when one uses relatively broad conceptualizations. Nonetheless, with a suitable choice of attributes of each dimension, it is possible to disentangle them at a conceptual level. Similarly, the quantitative measures and indexes that exist today are also quite variable, but most of them capture attributes of more than one dimension, generating uncertainty regarding what specific institutional aspects are driving the movements observed in a given index. These two insights should serve as a warning for researchers studying the effects of political and legal institutions on any societal outcome, regarding the importance of rigorously choosing the theoretical and quantitative measures that better fit their proposed hypothesis or mechanism.

The last section of the paper shows that the distinction between rule of law, economic and political freedom is not only theoretically possible, but also empirically relevant. While these concepts are somewhat correlated, there is ample variability across countries. For example, it is not always true that democratic societies and necessarily abiding by the rule of law, or not all economically open countries are democratic, etc. The range of combinations of these three dimensions across time and space is broad, which opens a series of research avenues. First, regarding the interconnections and complementarities among them. Second, in terms of more fine-grained analyses of the specific mechanisms that link each dimension with the outcome of interest (i.e economic growth), beyond the reduced form effect of an all-encompassing measure of democracy.

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