Textual democracy: Using panel data to understand how constitutional text relates to democracy and growth^{*}

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May 27, 2022

Abstract

The text of constitutions does matter. It informs democracy as it is practiced on the ground and can promote (or hamper) economic growth. High quality constitutions can promote growth indirectly by bolstering democracy and directly in the case of at least one constitutional variable. Enshrining property rights in the constitution is associated with 3.3% higher levels of per capita income, even after controlling for two-way fixed effects, and the existing level of GDP and democracy.

To make these findings I have created a panel data set containing data on 131 countries over more than 200 years. The panel contains data on the presence or absence of a range of clauses an attributes in the national constitution. I examine the relationship between these constitutional attributes, economic growth and democracy by estimating a series of models using a panel fixed effects estimator.

^{*} This paper was prepared as part of the requirements for completion of the Masters of Applied Economics and Econometrics at Monash University, Melbourne, Australia. It was submitted on the 27th of May, 2022 at the conclusion of the unit ECF5060 – Applied Economics Research Project

[†] I would like to thank Professor Mark Crosby and Professor Paul Raschky for their guidance, support, advice and encouragement.

1 Introduction

In democratic countries, changes to the constitution are typically very hard to make. We are conservative with our constitutions and require a high degree of consensus for constitutional amendments. Taking Australia as an example, referenda require a majority of the national vote and a majority of voters in a majority of states to pass. Even authoritarian states where power is concentrated in the hands of a leader still pay lip service by adopting a constitution. Historically, constitutional change has often been achieved through violent revolution. The reverence for national constitutions and the blood spilled in changing them implies that they have real importance to people's lives but empirical evidence for this is hard to find. In this study I explore the relationship between a range of constitutional attributes and outcomes of real importance to citizens, namely per capita GDP and democratic freedom.

I explore the relationship between constitutional attributes, democracy and growth by constructing a panel with data on 131 countries over more than 200 years. The panel includes indicator variables for the presence or absence of various constitutional attributes in each year. The attributes included in the panel are a small subset of all the variables available from the Comparative Constitutions Project (Elkins & Ginsburg, 2021a) chosen for their theoretical relationship to democracy or growth. They include constitutional clauses on the central bank, foreign investment and taxation. The full list of variables is available in Table 3. The data reveals new insights about the relationship between democracy and growth and the importance of the constitutional text to democratic performance.

I find that there are strong associations between some constitutional attributes and growth, even when controlling for current levels of democracy and GDP. Among these, property rights enshrined in the constitution are the most robustly correlated with growth. I also show that some constitutional attributes are strongly associated with the quality of democracy as measured by polity scores. Polity scores are widely used in political science and economics to quantify the level of democracy. Empirical studies in economics have shown that improvements in democracy do drive growth. So constitutional effects on democracy are an indirect avenue through which constitutions can improve growth.

This paper concludes with a discussion of these findings and their implications for policy makers, theorists and voters.

Research questions

- Which constitutional attributes (if any) are associated with economic growth?
- Which constitutional attributes (if any) are associated with improved quality of democracy?
- What role does the design of a constitution play in mediating the effect of democracy on growth?

2 Literature Review

Democracy and growth

In development economics, theory and empirics have both been applied to the question, "does democracy cause faster economic growth?" Much of the world's wealth and economic power is concentrated in democracies. However, some stories of tremendous economic success were shepherded by the hand of an authoritarian; Singapore and South Korea come to mind. Is this just a historical accident? Economists' approach to these questions and their conflicting findings are well summarised in meta-analyses by Przeworski and Limongi (1993) and Doucouliagos and Ulubasoglu (2008). More recently, economists have developed compelling empirical evidence that improvements in democracy do drive growth. Papers by Acemoglu et. al. (2019) and Madsen et. al. (2015) use long-run data and find that democracy does have a positive, causal effect on per capita GDP. I am convinced by these conclusions and this paper builds on those findings to explore what is at the root of these effects. I seek to understand how important constitutions are to a well-functioning democracy and in turn how important they are to growth.

Once we accept that democracy has a positive effect on growth the typical next questions is, how? Economists believe the most important mechanisms are robust institutions that protect property rights and provide for contract enforcement (Claessens & Laeven, 2003; Glaeser et al., 2004). Acemoglu and Johnson call these "property rights institutions" and "contracting institutions" (Acemoglu & Johnson, 2005, p. 949). These institutions are typically written into a strong national constitution. Indeed, my study shows that constitutions that explicitly protect property rights are robustly correlated with better economic performance, providing further empirical evidence for the mainstream view in economics.

Direct effects of constitutions on democracy or growth

Other economists have studied the direct relationship between constitutions and economic development. In 1994 De Vanssey and Spindler found a weak relationship between growth and the "entrenchment of various rights in a country's constitution" (1994, p. 359) but argued that economic freedom in general was critical to growth. Torsten Persson also found that "constitutional arrangements may have important consequences for structural policies that promote long-run economic growth" (2004, p. 139). My study follows in the footsteps of these researchers and uses granular, long-run data on constitutions to test these conclusions. I look at the direct relationship between constitutions and growth and the indirect relationship where improved democracy ultimately results in higher growth. The indirect relationship is an example of what Persson calls "structural policies"; his hypothesis is that democratic governments make better decisions in the interests their citizens' prosperity. My data does not explicitly confirm this but it is a plausible interpretation of my findings.

Defining democracy

Democracy is not just the rules as they are written, it is a practical exercise built on norms of behaviour. I seek to find out, can the text of a constitution make a difference?

Meaningful democracy requires both institutions and norms that support widespread participation in politics and distribution of power. Elections are necessary but not sufficient for a true democracy. The Centre for Systemic Peace uses the following definition, "A mature and internally coherent democracy, for example, might be operationally defined as one in which (a) political participation is unrestricted, open, and fully competitive; (b) executive recruitment is elective, and (c) constraints on the chief executive are substantial" (Marshall & Gurr, 2020, p. 15). I adhere to this definition of democracy because it captures both the explicit (textual and legal) components of democracy and the social aspects of participation and distribution of power. Some political scientists argue that norms and cultural practices are the most essential ingredient for a successful democracy. This approach is known as a "deliberative" theory of democracy and it is a widely held view among political scientists (Chambers, 2003; Eisenstadt et al., 2015). I prefer a wholistic view that takes in deliberative and constitutional elements. My study design allows me to examine the importance of constitutional text to the creation of a robust democracy.

3 Data[‡]

I combine publicly available data from three different sources into a panel with observations on 131 countries from the years 1789 to 2018. The three original data sets used are:

- 1. Characteristics of National Constitutions (Elkins & Ginsburg, 2021a), created and maintained by the Comparative Constitutions Project (CCP). The data set is maintained by a team of paid contributors who analyse current and historical versions of national constitutions. They use carefully defined criteria to determine the presence or absence of hundreds of constitutional attributes. This allows the evolution of national constitutions to be tracked over time. The full codebook for Characteristics of National Constitutions is available online (Elkins & Ginsburg, 2021b).
- 2. Maddison Historical Statistics (MHS) (Bolt & Luiten van Zanden, 2020), the 2020 release of this data set was prepared by Jan Luiten van Zanden and Jutta Bolt, who continue the work of Angus Maddison. I use this data set for historical estimates of GDP and growth. Contemporary

[‡] The data and code necessary to replicate this study is available online at my Github page: https://github.com/CampbellMcN/Constitutions, noting that the CCP data set is too large to upload and must be downloaded directly by the user from https://comparativeconstitutionsproject.org/

sources (for example the World Bank) do not stretch back as far in history. Maddison's carefully assembled estimates extend back up to 2,000 years in a few cases. This historical data allows me to extend the panel and include many more observations. All GDP figures that I use are per capita GDP adjusted for purchasing power parity in 2017 international dollars.

- 3. PolityIV (Marshall & Gurr, 2020) is a widely used data set in economics and political science maintained by the Centre for Systemic Peace (CSP). It assigns polity scores to every country in each year from +10 for perfect democracies to −10 for a complete autocracy. In scoring countries, five criteria are used, with a strong emphasis on the decentralisation of power. The five criteria are:
 - Competitiveness of executive recruitment
 - Openness of executive recruitment
 - Constraints on Chief Executive
 - Competitiveness of political participation
 - Regulation of participation

Importantly for my analysis, polity scores try to measure democracy as it is practiced, which takes in "deliberative" factors informed by culture and norms. By looking exclusively at the role that constitutions play in forming a democracy I can begin to tease apart the deliberative and institutional components of true democracy.

There are published critiques of the polity methodology (Boese, 2019; Mchenry & Mady, 2006), however the scores are widely used including in some of the studies I engage with in this literature review. At the very least polity scores are highly correlated with the other measures of democracy that some theorists prefer.

The panel I have constructed from these three sources is unbalanced with observations missing from some countries and years. However, I have chosen not to balance the panel by deleting observations or imputing values. I retain all the data that was publicly accessible in the data and use it to estimate my models. This gives me the greatest possible sample size with the fewest assumptions.

See Table 3 in Appendix B for a detailed description of each variable used in the analysis.

4 Empirical Approach

I estimate two sets of models that are useful for exploring the relationship between constitutional attributes, democracy and growth. The first set of models use per capita GDP as the outcome variable. I estimate three variations on the model described in equation (1).

$$\ln GDP10_{it} = polity10_{it} + \ln GDP10_{it-1} + C_{it} + v_{it}$$
 (1)

I take the logarithm of a ten-year moving average of per capita GDP adjusted for purchasing power parity in 2017 international dollars and use this as the outcome variable. polity10 represents the ten-year moving average of polity scores for each country and year. I also include the outcome variable lagged by one period ($\ln GDP10_{it-1}$) and a vector of indicator variables (C_{it}) representing the presence or absence of a set of constitutional attributes in each country and year. I have chosen a small subset (12) of all the constitutional variables available due the limited scope of this study. The ones I chose are those that theory suggests have relationships to economic growth, for example references to free markets or economic planning. The full set of constitutional variables used is available in Table 3. v_{it} is an idiosyncratic error term.

Using ten-year moving averages removes the effect of multi-year business cycles in the GDP data. The inclusion of the lagged dependent variable allows for lagged effects of constitutional and democratic changes on GDP and reduces autocorrelation in the error term. It's worth noting that inclusion of lagged dependent variables can result in downward bias in the estimates of other parameters in the model (Achen, 2000; Keele & Kelly, 2006).

In addition to estimating the full model, I also estimate a version that excludes lagged GDP and the constitutional variables. This illustrates the simple relationship between democracy and GDP in the data. I also estimate the model without the democracy scores, to highlight the direct relationship between constitutional variables and growth. The full results of all these regressions are reported in Table 1.

In the second round of analysis, I take polity scores as the outcome variables and estimate the model expressed in equation (2).

$$polity_{it} = GDP_{it} + C_{it} + v_{it}$$
 (2)

I estimate this model three times, first using all the data available and then using two different subsets. The first subset only uses data from 1875 to 1965, while the second subset uses data from 1965 onwards. There are two reasons for this approach. Firstly, it acts as a robustness check allowing me to check how sensitive my findings are to the inclusion or exclusion of some data. Secondly, it allows me to compare a period of constitutional upheaval (1875-1965) with a period of greater political stability (1965 – 2018). The first half of the 20th century was marked by more frequent constitutional changes brought about by

war and decolonisation. Different results in these two time periods might reflect a changing relationship between constitutions and democracy, or simply less variation in the data.

Full results from the second set of models are reported in Table 2.

All models are estimated using a two-way fixed effects estimator. This method demeans the data prior to estimation and removes the effect of all unobserved national characteristics that are time invariant and time-varying shocks that affect all countries. Therefore, we can be confident that unobserved heterogeneity between countries is not driving these results, nor are global trends (for example recessions) that affect all countries at once. With a time period of more than 200 years in the panel it is still possible that unobserved, country level characteristics which vary over time may impact the regression results.

The results of these regressions can not be taken as casual effects but given the power of the fixed effects estimator to eliminate country and time fixed effects, the results are meaningful correlations. They show that there are strong relationships between some constitutional attributes, democracy and growth, though they cannot show the direction of causality.

All results are reported with heteroskedasticity robust standard errors clustered at the country level.

5 Results and Discussion

The full results from this study are reported in Table 1 and Table 2 in Appendix A. Below I draw out some of the key findings and interpret their significance for answering the research questions.

Results from regressions using GDP as the dependent variable (Table 1)

This study confirms the positive relationship between democracy and growth that has been identified in the empirical economic literature.

The results from model (1) in Table 1 suggest that a one point increase in polity score is associated with a GDP per cpita level that is 0.8% higher. This is small difference, but it is statistically significant. The effect size is smaller than the effects identified by Madsen et. al. who find that transition from complete autocracy to complete democracy (a change of 20 polity points) can enhance national income by 47% (Madsen et al., 2015, p. 193). However, they control for human capital levels and use an instrument for identification making their empirical approach to this question much more rigorous. The results from my model are a correlation, rather than a causal effect. Nevertheless, when confirmed with robust findings from other papers (Acemoglu et al., 2019; Madsen et al., 2015), the positive effect of democracy on growth is a critical finding in

development economics. Finding effective ways to promote democracy is not just an intrinsic good, it is an instrumental good in the pursuit of human prosperity.

Enshrining property rights in the constitution is associated with higher levels of GDP.

Controlling for democracy scores does not materially change the estimated coefficient on the inclusion of property rights in the constitution. In both models (2) and (3) in Table 1 I find that including property rights is associated with a level of per capita GDP that is 3.3% higher. These results are significantly different from zero at the 10% level, meaning they are unlikely to be the result of random variation in the data. This confirms mainstream economic theory, which regards protection of property rights as critical for growth because it incentivises enterprise (Claessens & Laeven, 2003). However, it extends this basic theory by showing that the constitution in particular is a useful tool for the protection of property rights and the promotion of growth. These results suggest that using the constitution may be method for giving additional certainty to investors and entrepreneurs. This might be particularly useful for countries emerging from a period of illiberalism with poor property rights that need to signal their commitment to free enterprise. However, this is speculation beyond what my data can confirm.

Results from Regressions using polity scores are the dependent variable (Table 2)

What's written into a constitution does matter for the instantiation of a well-functioning democracy.

I have used only 12 constitutional variables from a broader data set of hundreds. However, all the models estimated in Table 2 have an R^2 greater than 0.25. This means that the variables included in the regression are able to explain at least 25% of the variation in the dependent variable, polity scores. A significant amount of this effect is being absorbed by the inclusion of per capita GDP in the regression. However, many of the constitutional variables have large, statistically significant coefficient estimates. The adoption of some constitutional attributes is associated with changes in polity score of up to 13 points. Many of these relationships are statistically significant at the 1% level. Constitutions that protect foreign investment and the provision of health care have some of the strongest relationships (both positive and negative) with democratic outcomes.

These are not causal relationships, but they are illustrative of a critical role that constitutions play in the formulation of a democracy. I find strong evidence that the text of a constitution does relate significantly to democratic performance. The "deliberative" view of democracy that argues norms, practises and participation dominate in the formulation of democracy is weakened by this statistical evidence.

Importantly, the coefficient estimates do fluctuate widely depending on the subset of data that is used to estimate each model. In some cases, they switch from positive to negative while maintaining their statistical significance. In other words, the results are not robust to the selection of different time periods and estimated relationships seems to change over time. The regressions don't hold much good evidence about the effect of specific constitutional attributes. However, the key finding here is not that particular constitutional attributes matter for democracy but that *constitutions* matter for democracy. Large, significant coefficient estimates for about half the variables and a large R^2 are a constant feature of every model that I estimated. The presence of many highly significant correlations in every model, even when GDP and fixed effects are controlled for shows that constitutions are intimately connected to democratic performance in a more general way.

Limitations and suggestions for further investigation

As discussed above, the coefficient estimates in my models are not causal effects. While they do present real insights into the relationship between constitutions, democracy and growth they are not the whole story. My research points the way to further study into constitutional relationships with democracy and growth. One approach would be to find a suitable instrumental variable that allows us to estimate the causal effect of constitutional protection for property rights on growth. Another would be to take many more of the variables and from the Comparative Constitutions Project's data set and use a big-data machine learning model to investigate how much of the variation in democratic performance can be explained through constitutions alone. My research presents new empirical evidence on the importance of constitutions and points the way to further original research in political economy.

Finally, it's important to note that countries deal with constitutional change in different ways. Supreme court rulings in the United States are in some sense changes to the constitution, however, they are not represented in my data, which is only concerned with textual changes. This is another potential confounder that prevents a strictly causal interpretation of the results.

6 Conclusion

This research presents new evidence that the text of constitutions is a significant contributor to democracy and in some cases directly to economic growth, even after controlling for democracy levels. The protection of property rights in the constitution appears to be the most robustly growth promoting constitutional change among the variables I have studied. However, many of the variables in my data set are strongly related to democratic performance. Constitutional protections for the provision of health care and foreign investment in particular have strong statistical relationships with polity scores. Most importantly, constitutions in general are deeply connected to real democratic outcomes measured by

polity scores. These findings confirm that constitutional design is important and impactful for leaders and voters who care about prosperity and democratic freedom. Countries that are emerging from autocracy or going through a period of significant change stand to benefit significantly from a strong emphasis on constitutional design. These findings and the availability of high-quality data from the comparative constitutions project open up new research avenues for economists and political scientists. I look forward to reading more empirical work on the aspects of constitutional text that really matter.

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Appendix A: Regression Tables

Table 1: Growth models

| | Outcome variable | come variable: Logarithm of 10 year moving average of per capita GDP | |
|---|-----------------------------|---|--------------------------------|
| | (1) | (2) | (3) |
| PolityIV score (10 year moving average) | 0.008* | 0.001 | |
| | (0.004) | (0.001) | |
| Log GDP (1 year lag) | | 0.863*** | 0.867^{***} |
| | | (0.049) | (0.048) |
| Free market | | -0.021 | -0.013 |
| | | (0.027) | (0.027) |
| Finance bills | | 0.010 | 0.007 |
| | | (0.021) | (0.020) |
| Foreign Investment | | 0.014 | 0.010 |
| | | (0.021) | (0.021) |
| Central bank | | -0.015 | -0.013 |
| | | (0.015) | (0.014) |
| Provide work | | -0.007 | 0.00000 |
| | | (0.016) | (0.014) |
| Provide health | | 0.001 | -0.003 |
| | | (0.020) | (0.021) |
| Infrastructure | | 0.012 | 0.010 |
| | | (0.021) | (0.019) |
| Redistribution | | -0.012 | -0.010 |
| | | (0.021) | (0.020) |
| Property rights | | 0.034* | 0.033* |
| | | (0.019) | (0.019) |
| UN declaration of rights | | -0.053** | -0.027 |
| | | (0.025) | (0.024) |
| Media market | | -0.048 | -0.073* |
| | | (0.039) | (0.042) |
| Economic plan | | 0.081*** | 0.083*** |
| | | (0.026) | (0.026) |
| Fixed effects? | two-way | two-way | two-way |
| Observations | 9,926 | 3,190 | 3,283 |
| \mathbb{R}^2 | 0.006 | 0.907 | 0.911 |
| Adjusted R ² | -0.030 | 0.897 | 0.902 |
| F Statistic | 59.094*** (df = 1; 9575) | 2,001.859*** (df = 14; 2886) | 2,355.317*** (df = 13 2978) |
| Note: | | *p· | <01; **p<0.05; ***p<0.0 |

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Table 2: Constitutional attributes and their relationship to polity scores

| | Ou | tcome variable: Polity sco | ores |
|--------------------------|------------------------------|------------------------------|------------------------------|
| | All data | 1875 - 1965 | 1965 - 2018 |
| GDP per capita | -0.0001** | -0.0001 | -0.0001 |
| | (0.0001) | (0.0002) | (0.00004) |
| Free market | 1.519 | -1.701 | -0.335 |
| | (2.315) | (2.303) | (0.854) |
| Finance bills | -0.012 | 0.045*** | 0.342 |
| | (0.031) | (0.012) | (0.741) |
| Foreign Investment | -9.297*** | -7.502*** | 13.854*** |
| _ | (2.511) | (2.189) | (3.947) |
| Central bank | 0.786 | -5.686*** | -0.831 |
| | (1.542) | (1.829) | (0.747) |
| Provide work | 5.142*** | 5.696*** | -2.105 |
| | (1.578) | (1.611) | (3.222) |
| Provide health | 5.050** | 4.558 | -5.535** |
| | (2.277) | (3.025) | (2.166) |
| Infrastructure | -4.348*** | -1.710 | -8.931*** |
| | (1.096) | (1.790) | (0.971) |
| Redistribution | 4.357*** | 1.756 | 9.002*** |
| | (1.095) | (1.788) | (0.979) |
| Property rights | -3.775 | -0.519 | 7.760*** |
| 1 3 8 | (2.431) | (0.988) | (1.724) |
| UN declaration of rights | 1.564 | , , | 4.687*** |
| | (1.531) | | (1.471) |
| Media market | 1.574 | | -8.928*** |
| | (1.758) | | (2.509) |
| Economic plan | 2.614 | | 0.004 |
| • | (1.808) | | (0.841) |
| Fixed effects? | two-way | two-way | two-way |
| Observations | 3,500 | 1,481 | 1,691 |
| \mathbb{R}^2 | 0.260 | 0.252 | 0.397 |
| Adjusted R ² | 0.188 | 0.166 | 0.347 |
| F Statistic | 86.181*** (df = 13; 3188) | 44.797*** (df = 10; 1327) | 79.104*** (df = 13; 1561) |

Note:

*p<0.1; **p<0.05; ***p<0.01

Appendix B: Codebook

All variables are drawn from one of three publicly available data sets:

Comparative Constitutions Project (CCP)

Maddison Historical Statistics (MHS)

Centre for Systemic Peace (CSP)

See below for further details on the variables used in my analysis.

Table 3: Summary of variables

| Variable Name in data set | Source | Variable description from original data set | Modifications (if any) |
|-----------------------------|--------|---|---------------------------|
| Country | All | Country Name | |
| Year | All | Year | |
| Free market market | CCP | Does the constitution refer to the "free market," "capitalism," or an analogous term? | 1 = 1 2 = 0 96 = NA |
| | | Yes No other, please specify in the comments section | |
| Foreign investment forinves | ССР | Does the constitution mention "foreign investment" or "foreign capital"? | 1 = 1 2 = 1 3 = 1 |
| | | Yes, protection of foreign investment Yes, promotion of foreign investment Yes, both No other, please specify in the comments section | 4 = 0 $96 = NA$ |
| Finance bills specleg_4 | ССР | Does the constitution provide for any of the following special legislative processes? | |
| | | Finance bills No provision for finance bills | |
| Central bank bank | CCP | Does the constitution contain provisions for a central bank? | 1 = 1 2 = 0 96 = NA |
| | | Yes No other, please specify in the comments section | |
| Provide work provwork | ССР | Does the constitution mention a state duty to provide work/employment? | 1 = 1 2 = 0 96 = NA |
| | | 1. Yes 2. No | |

| | | 96. other, please specify in the comments section | |
|-------------------------------|-----|--|---------------------------|
| | | Instructions: Please code mentions of the right, freedom, or liberty to work as "Other" with the comment "right to work." Note that the right to work is distinct from the right to choose one's employment and the right to safe/healthy working conditions. Provisions related to the latter two issues should be coded using the appropriate questions in the rights section (questions 590 and 591, respectively). Similarly, provisions related to anti-discrimination or equal opportunity for public, civil, or state employment should be coded in question 475. | |
| Provide health provhlth | CCP | Does the constitution mention a state duty to provide health care? | 1 = 1 2 = 0 96 = NA |
| | | 1. Yes 2. No | |
| | | 96. other, please specify in the comments section | |
| Infrastructure expcond_1 | ССР | Under what conditions or for what purposes can the state expropriate private property? | |
| | | For Infrastructure, public works Not for infrastructure, public works | |
| Redistribution | CCP | Under what conditions or for what purposes can the | |
| expcond_2 | | state expropriate private property? | |
| | | Redistribution to other citizens Not for redistribution to other citizens | |
| Property | CCP | Does the constitution provide for a right to own | 1 = 1 |
| Rights | | property? | 2 = 0 $90 = NA$ |
| proprght | | 1. Yes | 96 = NA $96 = NA$ |
| | | 2. No | |
| | | 90. left explicitly to non-constitutional law 96. other, please specify in the comments section | |
| UN | CCP | Does the constitution refer to any of the following | |
| declaration of rights | | international treaties or instruments? | |
| intrght_l | | 1. UN Universal Declaration of Human Rights | |
| | | (1948) 0. No reference to UNUDHR | |
| Media | CCP | Does the constitution mention any of the following | |
| market medmark_l | | general principles about the operation of the media market? | |
| | | 1. No monopoly or oligopoly | |

| | | 0. No regulation of monopoly or oligopoly | |
|------------------------|-----|--|-------------------------|
| Economic plan econplan | ССР | Does the constitution mention the adoption of national economic plans? | 1 = 1 $2 = 0$ $96 = NA$ |
| | | 1. Yes | |
| | | 2. No96. other, please specify in the comments section | |
| Growth | MHS | Annual GDP growth in percentage terms | |
| GDP | MHS | GDP per capita adjusted for purchasing power parity in 2017 international dollars | |
| GDP10 | MHS | 10 year moving average of GDP per capita adjusted for purchasing power parity in 2017 international dollars | |
| Polity | CSP | Annual democracy scores for each country. A score of -9 denotes complete autocracy and 9 complete democracy. Scoring criteria available at www.systemicpeace.org | |
| Polity10 | CSP | 10 year moving average of annual democracy scores | |