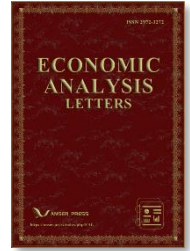




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Is democracy affecting the economic policy responses to COVID-19? A cross-country analysis

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ABSTRACT

How does democracy relate to the initial economic policy responses to Covid-19? Using a cross country analysis, we find that countries with a higher degree of democracy have stronger economic policy responses than their peers. However, when we separate monetary and financial policies from fiscal policy, democracy is not associated with the latter when we control for the income level of a country. Finally, for countries with lower levels of labor participation, high levels of income inequality are associated with weaker policy responses.

KEYWORDS

Covid-19; Democracy; Economic policy

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1. Introduction

The initial response to the COVID-19 pandemic in most countries has been a combination of lockdown and social distancing (Toxvaer, 2020). Empirical evidence for the 1918 pandemic episode not only favors this approach from a health policy perspective, but it also seems to be the best response from an economic viewpoint (Correia et al., 1918).

The virus can be analyzed as a negative supply shock that generates a follow-up negative demand shock (Guerrieri et al., 2020). This double effect imposes an additional hurdle to policymakers, with no one-size-fits-all solution. First, different countries have distinct fiscal and monetary architectures to respond to the expected economic recession induced by this pandemic. Second, the designed policies need to address the existing heterogeneity within countries as there is an association between the activities that were totally shut down (due to their inability of performing delivery services or implementing teleworking policies, for instance) and the vulnerability of workers within these sectors (Kaplan et al., 2020).

The roles of monetary and fiscal policies are different from the usual business cycle smoothing. On the one hand, monetary policy is already close to (or at) the lower bound for most countries, and even in those with space to cut interest rates, its effectiveness is rather low. On the other hand, while the lack of monetary response should increase the fiscal multiplier (DeLong et al., 2012), the usual circular-income-flow reasoning does not apply when most sectors in the economy are closed (Guerrieri et al., 2020).¹

Against this background, it seems crucial to understand what factors might affect the size and type of policies that are currently being undertaken by governments to smooth the negative economic shock linked with the virus. Ferraresi et al. (2020) showed that developed countries have adopted more stringent measures against COVID-19 than developing ones. Farzanegan and Gholipour (2023) stated that stronger government's macro-financial package in response to the pandemic tend to reduce the number of COVID-19 deaths per million. Bitara et al. (2023) concluded that formal institutions (i.e., effective political institutions, sound governance, and better economic conditions) have decreased COVID-19 spread. Nonetheless, to the best of our knowledge, we develop the first cross-section analysis to understand the relationship between democracy and the responsiveness of the economic policies undertaken for 152 countries. The main results suggest that countries with a higher degree of democracy have stronger economic policy responses than their peers.

The paper is organized as follows. Section 2 describes the data and provides some stylized facts regarding policy responses between regions and democracy levels. Section 3 presents our econometric results and Section 4 concludes.

2. Data sources

We gathered data on economic policy responses from the COVID-19 Economic Stimulus Index (CESI) developed by Elgin et al. (2020). Information on democracy levels was retrieved from The Economist Intelligence Unit's (EIU) democracy index. To control for the level of income and the size of government, we gathered data on GDP per capita (*GDPpc*) and government share over *GDPpc* (*GOV*) from Feenstra et al. (2015).² To account for labor market dynamics, we calculate a proxy for labor market participation (*PART*) as a fraction between total employment and total population (data retrieved from Feenstra et al., 2015). Finally, we gathered information on the Gini coefficient (*GINI*) from Solt (2016). Table A in the appendix reports descriptive summary statistics of all economic variables.

¹ The heterogeneity in policy responses is synthesized in Elgin et al. (2020).

² Both variables are adjusted by purchasing power parity (PPP).

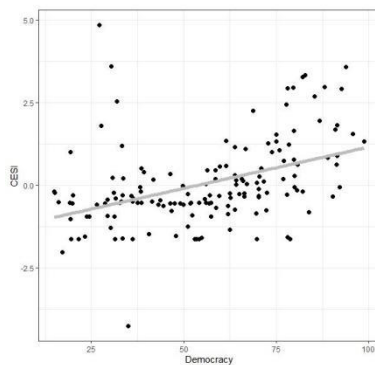


Figure 1. Democracy and CESI - Full Sample.

Source: The EIU democracy index, 2018 values; CESI from Elgin et al. (2020).

The association between democracy and economic policy responses seems positive but not constant amongst regions. Using World Bank’s regions definition, while there is a positive association for Europe and Central Asia, East Asia and Pacific, and South Asia (although less pronounced), there seems to be no correlation for the remaining regions (Figure 2).³

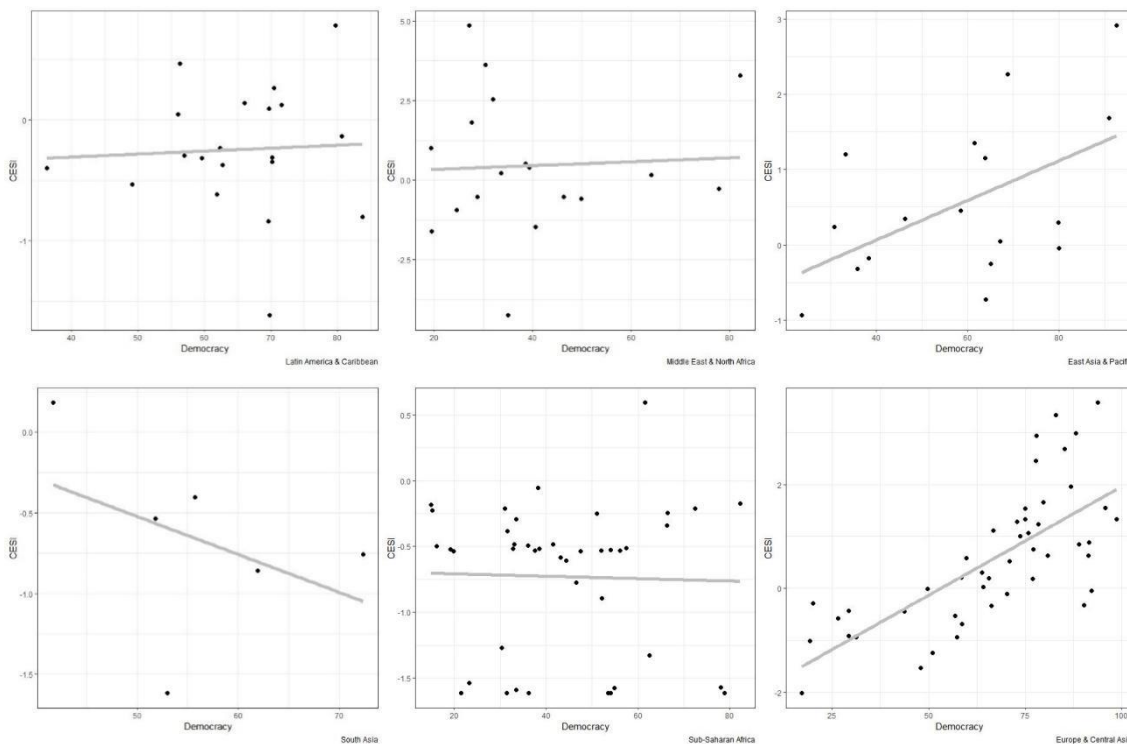


Figure 2. Democracy and CESI by region.

Source: The EIU democracy index, 2018 values; CESI from Elgin et al. (2020).

Since low-income countries and emerging market economies may be (more) constrained to implement economic policy responses, especially in the fiscal front, and high levels of inequality may limit the ability to accommodate lockdown strategies, we would expect both variables to have a strong association with the CESI. Figure 3 confirms this scenario, as countries with higher levels of *GDPpc* and lower levels on inequality present

³ Since for North America the sample size is rather small (only three countries), we dropped the associated scatterplot. Notwithstanding, the association is positive.

stronger responses. Finally, while there seems to be a negative relationship between the size of a government and the CESI, countries with higher levels of employment share seem to be reacting more strongly to this pandemic, suggesting that the size of the policy response may be influenced by the potential number of workers exposed to the economic shock (Figure 4).

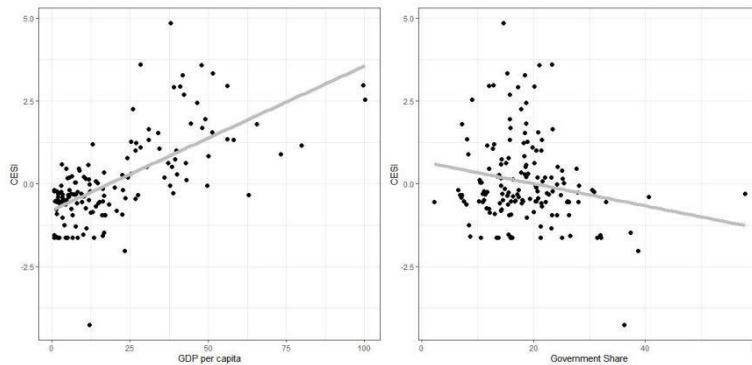


Figure 3. CESI, per capita GDP and inequality.

Source: *GDPpc* from Feenstra et al. (2015), 2017 values; *CESI* from Elgin et al. (2020); *Inequality* from Solt (2016), 2017 values.

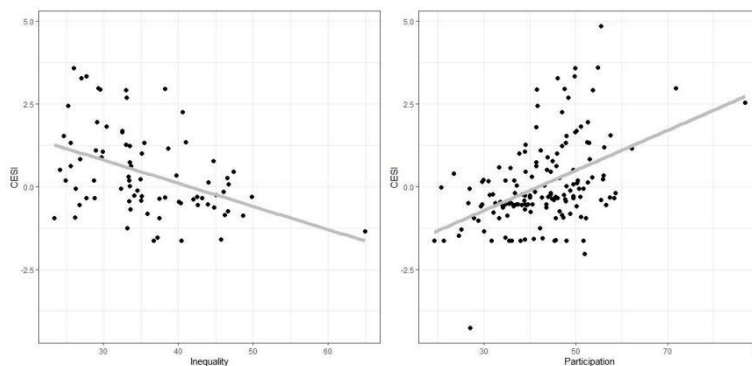


Figure 4. CESI, government share (% GDP) and employment participation.

Source: *GOV* and *PART* from Feenstra et al. (2015), 2017 values; *CESI* from Elgin et al. (2020).

3. Methodology and results

Following Correia (2016) and Guimaraes and Portugal (2010), we develop a cross-country analysis to examine the impact of democracy on the initial economic policy responses to Covid-19 until April 2020:

$$Y_i = \beta_j X_{ji} + \mu_r + \varepsilon_i \tag{1}$$

where Y_i corresponds to the dependent variable, X_j is a vector of independent variables, μ_r corresponds to a region fixed-effect term to account for specific differences across the seven geographical regions, and ε_i is the error term for the i th observation. Subscripts j and i denotes the independent variable j and country i , respectively. Equation (1) is estimated for three dependent variables: *CESI*; *MacroFin*, representing monetary, credit and macroprudential policies; and the *Fiscal* policy variable.⁴

Table 1 summarizes the results for *CESI*. For all the considered cases, a higher democracy index contributes consistently and positively to a stronger policy response from governments. This implies that countries with full

⁴ See Elgin et al. (2020) for a full description of the variables.

democracies (or closer) provided a higher economic stimulus than authoritarian regimes. As *Democracy*, labor participation rate (*PART*) seems positively related to the size of the policy (see columns (2)-(4)). This can be interpreted as follows: countries seem to react more strongly when the level of labor participation is high because more protection is needed to those that might suffer the most with the Covid-19, i.e., the workers.

Table 1. COVID-19 Economic Stimulus Index (CESI).

Variables	(1)	(2)	(3)	(4)	(5)
<i>Democracy</i>	0.022*** (0.005)	0.019*** (0.005)	0.009* (0.005)	0.010* (0.005)	0.026*** (0.008)
<i>PART</i>		0.045*** (1.072)	0.020* (1.193)	0.021* (1.214)	-0.097 (6.888)
<i>GDPpc</i>			0.027*** (0.005)	0.024*** (0.006)	0.023*** (0.010)
<i>GOV</i>				-0.021 (0.013)	-0.022 (0.022)
<i>GINI</i>					-0.123* (0.064)
<i>PART</i> × <i>GINI</i>					0.284* (0.166)
Observations	152	152	152	1521	79
R-squared	0.335	0.425	0.483	0.494	0.577

Dependent variable: CESI. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

GDPpc also contributes positively to the policy response, in line with Elgin et al. (2020). Notwithstanding, the size of the government (*GOV*) does not contribute to explain the policy responses currently being undertaken. Interestingly, the impact of income inequality seems to be related with the labor participation in the country (see column (5)): for low (high) levels of *PART*, an increase in inequality leads to a decrease (increase) in policy response. This means that countries seem only to take into account the level of inequality if the labor participation is sufficiently high. However, countries with lower labor participation might be able to do better, as it seems they are not taking into account inequality as a decision variable.⁵

Table 2 presents the results for *MacroFin*. Again, a higher democracy index contributes systematically and positively to a stronger monetary response. This suggests that countries with full democracies are using their monetary policy more effectively than authoritarian regimes. A similar positive impact is also found for the labor participation rate. This suggests that central banks are directing their policies towards workers by easing the access to credit to commercial banks, which, in turn, will support firms throughout the recovery. Interestingly, although *GDPpc* seems not to be correlated with the policy response, the size of the government appears to be negatively related. This result points towards the complementarity between fiscal and monetary policy: larger governments would have more leeway to increase their fiscal policy and, therefore, would not need to rely as much on monetary policy.

This can be also seen in Table 3, where a higher *GDPpc* contributes positively to a stronger fiscal policy. In this regard, democracy loses its statistical significance once we control GDP levels, suggesting that fiscal-policy responses do not depend on the level of democracy but only on the level of income.⁶

⁵ We also included the infection rate as a dependent variable to control for how strong a country has been affected by the pandemic. Nevertheless, due to its statistical non-significance across all estimations, it was not included in the final version of the paper.

⁶ Since the variables *MacroFin* and *Fiscal* are mainly composed by 0 and 1, and that we only have information on the Gini coefficient for 79 countries, we do not report the results on the interaction between *PART* and *GINI*. Nonetheless, the impact of democracy on *MacroFin* (*Fiscal*) is still positive and statistically significant (insignificant).

Table 2. Macro-financial initial policy responses to Covid-19.

Variables	(1)	(2)	(3)	(4)
<i>Democracy</i>	0.050*** (0.016)	0.042** (0.017)	0.036* (0.019)	0.037* (0.019)
<i>PART</i>		0.045*** (5.781)	0.020* (5.921)	0.021* (5.949)
<i>GDP_{pc}</i>			0.016 (0.026)	0.009 (0.026)
<i>GOV</i>				-0.049* (0.028)
Observations	152	152	1521	1521
R-squared	0.218	0.277	0.279	0.286

Dependent variable: *MacroFin*. See notes on Table 1.

Table 3. Fiscal policy initial responses to Covid-19.

Variables	(1)	(2)	(3)	(4)
<i>Democracy</i>	0.064*** (0.013)	0.056*** (0.013)	0.018 (0.013)	0.018 (0.013)
<i>PART</i>		0.115* (3.913)	0.017 (2.743)	0.017 (2.759)
<i>GDP_{pc}</i>			0.109*** (0.020)	0.107*** (0.020)
<i>GOV</i>				-0.015 (0.023)
Observations	152	152	152	152
R-squared	0.282	0.355	0.469	0.470

Dependent variable: *Fiscal*. See notes on Table 1.

4. Concluding remarks

At the time we are writing this paper, countries around the world are designing their policy plans to fight the inevitable economic consequences of the COVID-19. By applying a cross-section analysis for 152 countries, we concluded that countries with higher levels of democracy seem to be responding more aggressively on the economic front. This may imply that more democratic countries seem to better understand the long-term implications of this pandemic. However, when we separate monetary and financial policies from fiscal policy, democracy is not associated with the latter when we control for the income level of a country. We also found that countries with higher labor participation rates seem to react more strongly, as more protection is needed to workers and employees because they are the ones who might suffer the most. Notwithstanding, for countries with lower levels of labor participation, high levels of income inequality are associated with weaker policy responses, suggesting that those countries might need to redesign their policies to ensure that these are effectively directed to the ones in need.

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Conflict of interest

The authors claim that the manuscript is completely original. The authors also declare no conflict of interest.

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