Governance quality vs. stimulus size: fiscal policy effectiveness during the COVID-19 pandemic

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Abstract

Given the importance of good governance for the efficiency of government spending, this study reveals the role of governance quality in fiscal policy effectiveness during the COVID-19 outbreak. Using cross-country threshold regressions for 144 countries, we find that a stringent lockdown policy (i) does not lead to economic downturn in countries with larger fiscal stimulus, (ii) leads countries with poor governance quality to head toward economic slowdown even with higher stimulus packages, (iii) does contribute to economic recovery even in countries with smaller fiscal packages if accompanied by higher governance quality. Overall, the results suggest that good governance helps achieve economic recovery, whereas an increase in the size of the fiscal stimulus can, at best, help protect against economic slowdown. The empirical findings have several implications for policymakers in countries where the blow hits the hardest, as well as for fiscal governance framework.

Keywords: fiscal stimulus, governance quality, COVID-19

1 INTRODUCTION

With the implementation of lockdown policies, pandemic-induced output losses have been of particular importance across the globe. Mobility levels collapsed in early March 2020 because of a mix of government-imposed restrictions and individual voluntary decisions. Production shrank dramatically in 2020 while recovery rose in 2021 with the vaccination rollout[1]. To mitigate the health and economic downturn caused by the outbreak, governments all over the world engaged in massive fiscal support programs (De Soyres, Santacreu and Young, 2022). As described by Blanchard (2020), the motto for fiscal policy was: "whatever it takes" and fiscal stimulus injections were probably the most effective tool adopted by the governments to slow down the impact of the lockdown during these unprecedented times of high uncertainty (Basri, Ing and Schulze, 2022; Tsatsaronis et al., 2022).

Makin and Layton (2021) argue that increased government spending as a fiscal stimulus that helps aggregate demand increase has countervailing effects elsewhere in the economy that eventually neutralize its influence[2]. The authors assert that fiscal relief measures focusing on stimulating aggregate demand are inferior to those targeting the supply side of the economy. Therefore, one might expect demand-stimulating policies to be well-calculated[3] or supported by a well-targeted supply-leading framework. Previous literature addresses good governance and/or

[1] Note that real per capita income (2015 U.S.$ in constant prices) growth was -3,85 in 2020 while it was 5,47 in 2021 (World Bank WDI Database, 2024).

[2] Notice that there is well-documented literature on the potential macroeconomic costs of fiscal packages provided in the pandemic era (see, i.e., Banerjee et al., 2022; Dean, 2022; De Soyres, Santacreu and Young, 2022; Horton and El-Ganainy, 2022; among others).

[3] According to Blanchard (2020), governments should be prepared to take action, but should not commit to a precise amount of fiscal expansion before they exactly estimate its impact on demand.

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institutional quality[4] as a major determinant of government spending efficiency. However, the existing literature focusing on the pandemic era has, to the best of our knowledge, ignored the potential role of governance quality[5]. Ramey (2019) asserts that the effectiveness of fiscal stimulus may depend on the severity of the downturn and the initial economic conditions during an economic crisis. Given the severity of the pandemic, then the key question in the debate over fiscal policy effectiveness becomes whether stimulus size alone is sufficient to drive economic recovery or whether governance quality plays a moderating role. From this point of view, this study attempts to address the role of governance quality in fiscal policy effectiveness during the pandemic. The main research question raised in the study is: "does governance quality increase the effectiveness of fiscal stimulus?". Given this research question, this study addresses the aforementioned research gap by investigating the extent to which governance quality moderates the effectiveness of fiscal stimulus during the pandemic. Specifically, our main hypothesis is that "stringent lockdown policies do contribute to economic recovery in countries where governance quality is higher, regardless of the size of the fiscal stimulus".

Section 2 provides the background of the study. Section 3 describes the good governance concept. Section 4 presents the empirical framework and results. Section 5 discusses policy implications. Section 6 gives concluding remarks.

2 FISCAL POLICY, GOOD GOVERNANCE AND GROWTH

The role of government in an economy is crucial in the distribution and allocation of resources as well as social organization, law and order, and political stability (Cooray, 2009). A significant uneven growth pattern across rich and poor nations has been of great importance in the economics literature, and a large strand of the literature emphasizes the importance of institutional quality or good governance. Theoretically, governance quality can affect economic growth in two ways: (i) by enhancing the productivity of physical and human capital stock, and (ii) by improving social infrastructure which facilitates financial system soundness to attract capital investments (Azimi, 2022).

Following the early attempts that examined the size dimension (see, i.e., Barro, 1990; 1991; Barro and Sala-i-Martin, 1992; among others), recent studies have investigated the quality dimension indicating the efficiency of public services. In the late 1990s and early 2000s, some of the research focused on the effectiveness of public capital in the growth process. Pritchett (1996) shows that the slow growth rates in many developing countries are not due to the amount of government investment but rather to inefficiency in converting these investments into

[4] Because good governance stimulates the institutions expected to play a crucial role in facilitating economic growth (Knack and Keefer, 1995; 1997; Acemoglu, Johnson and Robinson, 2001; Acemoglu and Robinson, 2012; among others), there is a strong connection – even interchangeability – between governance quality and institutional quality.

[5] Gregory (2022), the only study that attempts to address this issue in the context of environmental and social governance with micro-level data, finds that non-financial firms that manage environmental and governance risk better were able to perform better over the pandemic.

productive capital, specifically with less than $0.50 of capital created for every $1 of public investment. Calculating an aggregate index based on a number of public services, Hulton (1996) shows that public infrastructure effectiveness is able to explain over one-quarter of the differential growth between Africa and East Asia. Using the indicators proposed by Hulton (1996), Aschauer (2000) constructs a different index to observe that a 1% increase in either the quantity or the efficiency of public capital leads to an increase in GDP per capita of 0.29%.

The literature provides strong support for a close relationship between fiscal policy and the quality of institutions. De Mello (2008) reveals that the quality of institutions is crucial for fiscal sustainability. Previous literature has indicated that excessive government spending and budget deficits commonly arise once the quality of institutions is poor and fiscal policy authority is fragmented (Alesina and Perotti, 1999; Kontopoulos and Perotti, 1999; Persson and Tabellini, 2004). In addition, there is also a parallel literature addressing the interaction between the weakness (strength) of political institutions and the procyclicality (countercyclicality) of fiscal policy. For instance, Alesina, Campante and Tabellini (2008) find that procyclicality of fiscal policy is more pronounced in more corrupt democracies, depending on the quality of political institutions. Calderón and Schmidt-Hebbel (2008) find that institutional factors are better able to explain the differences in the cyclicality of budget balances between advanced and developing countries. Frankel, Vegh and Vuletin (2013) discover a causality nexus running from high-quality institutions to a more countercyclical (or less procyclical) fiscal policy. Temsumrit (2022) shows that high-quality institutions play a crucial role in limiting cyclical policy, and these effects are more pronounced in democratic countries.

Wilhelms (1998) suggests that government policies executed within a sound institutional framework are of particular importance for any given country to achieve the desired improvements in economic growth. Given this argument, the contribution of government spending efficiency to economic growth through a good governance mechanism has received great attention in the empirical literature. Plumper and Martin (2003) find that the efficiency of public expenditure is lower in less democratic countries. Collier and Goderis (2007) find that increases in government expenditures decrease economic growth through a channel exacerbated by poor-quality institutions. Feeny and Rogers (2008) show that public spending efficiency increases with governance quality, which, in turn, helps achieve higher economic outcomes. Rajkumar and Swaroop (2008) find that government expenditures are more likely to be successful in countries with higher governance quality than in those with lower governance quality. Cooray (2009) shows that either higher government expenditure or higher governance quality could contribute to growth, though governance has a stronger impact. Afonso, Schuknecht and Tanzi (2010) report that institutional quality has a positive impact on the efficiency of social spending. Kaplanoglou and Rapanos (2011) reveal that even fiscal consolidation packages will fall short if the institutional quality does

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not foster long-term growth. Chan and Karim (2012) report that political stability leads to higher public spending efficiency. El Anshasy and Katsaiti (2013) find that what matters to economic growth is the quality of fiscal policy, not the quantity. In particular, they point out that high governance quality and stronger democratic institutions improve fiscal performance, which, in turn, leads to higher economic growth. Chan, Ramly and Karim (2017) find that growth is accelerated by government expenditure efficiency and that the moderating impact of fiscal policy tools is improved by the democratic quality and legislative strength of the government. The authors argue that democracy and the ability of governments to implement their programs strengthen the quality of economic institutions, which, in turn, affects economic performance.

There is growing literature on the impact of fiscal policy in cushioning the blows to the economy of COVID-19. Aguirre and Hannan (2021) find that the detrimental medium-term impacts of the pandemic on output are relatively limited for countries with greater fiscal packages. Alberola et al. (2021) find that the size of the fiscal packages is determined by factors such as income, automatic stabilizers, and social safety levels. Chen et al. (2021) reveal that the pandemic severity is correlated with similarities in the types and aims of fiscal policy responses, variances in the quantity of fiscal stimulus, as well as the economic conditions of the countries. Chudik, Mohaddes and Raissi (2021) show that fiscal policy plays an important role in mitigating the effects of COVID-19 and countries with larger fiscal stimulus are expected to experience fewer output contractions. Deb et al. (2021) reveal that fiscal policy announcements are effective in boosting economic activity, but the impact is volatile across measures and country characteristics. In particular, emergency measures (such as unemployment insurance, wage subsidies, and cash transfers) are more effective when lockdown policies are stringent whereas demand-support measures (such as equity injections, government provision of loans, and other liquidity measures) are more effective when lockdown measures are loose. Haroutunian, Osterloh and Sławińska (2021) indicate that the immediate response of fiscal measures has been strong and has considerably helped countries mitigate the effects of the outbreak. Hudson et al. (2021) observe that the size of the fiscal packages is not uniform across countries, and the potential factors affecting the package sizes are the severity of the pandemic, automatic stabilizers, and pre-pandemic fiscal space. Auerbach et al. (2022) show that the effects of fiscal policies are stronger during the peak of the pandemic but only in places where stricter lockdown policies are not implemented. Without an empirical framework, Bascunan (2022) discusses the role of fiscal institutions and asserts that strengthening fiscal institutions should be an economic policy priority during the COVID-19 pandemic. Bui et al. (2022) show that the response to fiscal policy (represented by whether respondents and/or other households receive financial assistance from the government because of the pandemic) is expected to be stronger if there is an optimistic macroeconomic outlook and higher prosperity. Using a policy and a counterfactual scenario, Di Bartolomeo, D'Imperio and Felici (2022) show that prompt fiscal policy reactions to the pandemic have

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dramatically slowed down the impact of the lockdown. Using total expenditure, public consumption, and public investment multipliers, Kinda, Lengyel and Chahande (2022) find that fiscal multipliers during the pandemic era (a year after) are about twice as large as they are during normal times. Tervala and Watson (2022) focus on output and welfare multipliers of transfer payments, public consumption, and public investment to observe that all components have high multipliers, though public investment has the highest. A report released by ESCAP (2020) argues that social protection must be a key element of recovery plans as a part of fiscal stimulus, which pushes up the aggregate demand and promotes the revival of the economy, by generating spillover and multiplier effects for the economy.

To summarize, one can make three essential inferences from the previous discussions that have motivated this study. First, government spending efficiency contributes to growth through governance and/or institutional qualities. Second, the effectiveness of fiscal stimulus in the COVID-19 era remains under examination in the current literature. Third, governance quality has not been addressed as a potential channel through which fiscal stimulus packages in the COVID-19 era may impact growth.

3 GOOD GOVERNANCE CONCEPT

The literature focusing on quality dimensions has measured the impact of governance using various aspects of governance such as democracy, property rights and so on (see, i.e., Barro, 1999; Acemoglu et al., 2008; Gradstein, 2004). However, Kaufmann, Kraay and Zoido-Lobatón (1999a; 1999b) show that compared to a single indicator, aggregate governance indicators are able to provide more information on the level of governance and offer multidimensional perspectives. Thus, they construct six indicators corresponding to six basic governance concepts. The latest version of these indicators is proposed by Kaufmann, Kraay and Mastruzzi (2010) and has been used by the World Bank (WB) as Worldwide Governance Indicators (WGI). Kaufmann, Kraay and Mastruzzi (2010: 4) define each indicator as follows:

> "(a) The process by which governments are selected, monitored, and replaced:
>
> 1. *Voice and accountability*, capturing perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
>
> 2. *Political stability and the absence of violence/terrorism*, capturing perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.
>
> (b) The capacity of the government to effectively formulate and implement sound policies.
>
> 3. *Government effectiveness*, capturing perceptions of the quality of public services, the quality of the civil service and the degree of its independence

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from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
4. *Regulatory quality*, capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. (c) The respect of citizens and the state for the institutions that govern economic and social interactions among them.
5. *Rule of law*, capturing 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.
6. *Control of corruption*, capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests."

With the proposal of multidimensional governance indicators, the most recent studies have incorporated these indicators to observe whether governance quality matters (see, i.e., Gani, 2011; Omri and Hadj, 2020; Abid et al., 2021; among others). Notice that these aggregate governance indicators are useful not only because of broad country groupings according to levels of governance; but their applicability even with a larger sample of countries (Kaufmann, Kraay and Zoido-Lobatón, 1999a).

4 EMPIRICAL FRAMEWORK

4.1 DATA AND VARIABLES

This study uses annual observations from 144 countries[6]. Considering Baumol's (1986) convergence equation, we use the following equation to estimate the impact of the lockdown on economic recovery:

$$lng_{i,2021} - lng_{i,2019} = \alpha_0 + \alpha_1 lnk_{i,2019} + \alpha_2 lne_{i,2019} + \alpha_3 lnld_{i,2020} + \varepsilon_i \qquad (1)$$

where economic growth (g) is the indicator of economic recovery and is measured by per capita real GDP in 2021 as a share of per capita real GDP in 2019 to observe the impact of the recovery. Note that the focus on the difference between a year after and a year before the pandemic is not only motivated by the measures and policies implemented in 2021 but also by the strong base effect in 2021. Note also that economic recovery is better captured at an annual level as quarterly GDP fluctuations may reflect short-term shocks or seasonal variations that do not accurately represent long-term recovery trends. Data on per capita real GDP originate from the International Monetary Fund World Economic Outlook (2022) database. Lockdown policies are measured using the stringency index proposed by Hale et al. (2021). The stringency index is an aggregate score composed of nine measures including

[6] Countries in the sample are available in appendix.

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workplace closures, school closures, travel bans, etc., and rescaled to a value ranging from 0 to 100. Note that the higher stringency index[7] is associated with a stricter lockdown response. Note that there are a few other sources, including Google Community Mobility Reports to substitute for the stringency index. However, the stringency index is chosen specifically due to its explicit focus on government-imposed lockdown policies as well as providing consistent and comparable cross-country data on the severity and timing of restrictions. Capital stock (k) is represented by the per capita real gross fixed capital formation while the education (e) indicator is the mean years of schooling, both drawn from the United Nations Statistics Division (2021) database. Notice that we regress income growth over 2019-2021 on initial capital stock and initial education level. The fiscal policy package is represented by a stimulus index[8] proposed by Elgin, Basbug and Yalaman (2020). Governance quality is represented by Worldwide Governance Indicators obtained from the WB Worldwide Governance Indicators (2021) database. A single index has been constructed using principal components analysis (PCA) to measure the aggregate impact[9]. The PCA results, summarized in table 1, show that the first principal component (PC1) explains 85.18% of the total variance, while the second principal component (PC2) contributes an additional 6.78%. Since PC1 alone captures a substantial amount of the variance, this suggests that the six governance indicators have a common underlying structure. This justifies reducing multidimensionality by constructing a single composite governance index.

Table 1

PCA results (in %)

Principle component	Proportion of variance	Cumulative proportion
PC1	85.1	85.1
PC2	6.7	91.9
PC3	4.5	96.5
PC4	2.0	98.6
PC5	0.8	99.4
PC6	0.5	100.0

Source: Authors' calculation.

[7] While this index is widely used in the literature and provides a standardized measure for cross-country comparisons (Gros, Ounnas and Yeung, 2021; Ma et al., 2021), it has some limitations. Specifically, the index may not fully capture informal lockdowns, localized restrictions, or differences in enforcement levels across regions within a country. Moreover, reporting inconsistencies could exist among countries, particularly in cases where subnational governments implemented independent restrictions that were not reflected in national-level data. Despite these limitations, the index remains an effective proxy for lockdown stringency, given its broad coverage and methodological consistency across countries.

[8] We use the version of the dataset released on May 7, 2021.

[9] Governance quality is a multidimensional concept, and its impact on economic outcomes is often the result of the combined influence of various institutional factors. By using a single index derived from PCA, we focus on the aggregate effect of governance rather than the isolated impacts of each indicator. This approach allows us to analyse governance as a unified construct and prevents overemphasis on specific dimensions while maintaining methodological coherence.

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Note that all variables have been converted to natural logarithms[10] to address skewness and heteroscedasticity. In addition, this transformation allows us to interpret the coefficients as elasticities in measuring the lockdown elasticity of growth.

Table 2
Summary statistics

Variables	Obs.	Mean	Std. dev.	Min.	Max.
Growth	144	-0.010	0.053	-0.179	0.165
Capital	144	7.116	1.541	2.978	10.561
Education	143	2.079	0.457	0.470	2.653
Lockdown policy	144	3.988	0.451	1.868	4.497
Fiscal stimulus	144	2.293	1.211	-1.647	8.202
Governance quality	144	-0.150	1.379	-2.304	2.222

Source: Authors' calculation.

Table 2 provides descriptive statistics. Notice that the highest standard deviation comes from the capital variable which is followed by the governance and stimulus variable, indicating the heterogeneous governance quality and package size across the countries in the sample. Notice also that the high variation in the capital stock variable indicates heterogeneity in financial resources and investment capacity across countries. Countries with higher capital levels likely exhibit greater economic resilience, enabling them to finance recovery efforts more effectively.

Table 3
Correlation matrix

	Growth	Capital	Education	Lockdown policy	Fiscal stimulus
Growth	1.000				
Capital	0.187	1.000			
Education	0.191	0.690	1.000		
Lockdown policy	-0.163	0.416	0.435	1.000	
Fiscal stimulus	0.048	0.436	0.376	0.227	1.000

Source: Authors' calculation.

Table 3 shows the correlation matrix among the variables. The weak correlation between fiscal stimulus and growth indicates that fiscal stimulus alone may not significantly impact economic recovery, addressing the main motivation of the existing paper. Notice that the weak correlation between growth and traditionally strong drivers like capital and education suggests that the pandemic disrupted usual growth patterns. Notice also that all correlations are positive with the exception of the lockdown policy variable, indicating that stricter lockdown measures were associated with weaker economic growth. The fact that the correlation of lockdown policy with growth is slightly similar in absolute terms to those of

[10] To avoid negative values, the inverse hyperbolic sine transformation is applied where required.

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capital and education suggests that lockdown measures have a comparable impact on economic recovery as traditional growth drivers during the pandemic, which reflects the exceptional nature of the crisis.

4.2 MODEL SPECIFICATION AND RESULTS

The empirical model is based on a cross-country threshold regression. Unlike interaction models, which assume a continuous moderating effect, the threshold approach empirically determines cut-off points where the impact of the lockdown policy on growth shifts significantly depending on fiscal stimulus size and governance quality levels. To this end, we use a simple cross-section version of Hansen's (1999) threshold model as described below:

$$g_i = \alpha_0 + \alpha_i^{'} Z_i I\left(X_i \le \lambda\right) + \alpha_i^{'} Z_i I\left(X_i > \lambda\right) + \varepsilon_i \quad (2)$$

where $I(\cdot)$ is the indicator function. $Z_i = (k_i, e_i, ld_i)'$ is a (3×1) vector and $\alpha_i = \left(\alpha_{1i}, \alpha_{2i}, \alpha_{3i}\right)'$ is the parameter vector of slope coefficients. The observations are divided into two regimes in equation (2) depending on whether the threshold variable X_i is smaller or larger than the threshold λ.

Notice that equation (2) has a single threshold and can be extended with multiple thresholds. The double threshold model takes the form:

$$g_i = \alpha_0 + \alpha_1^{'} Z_i I\left(X_i \le \lambda_1\right) + \alpha_2^{'} Z_i I\left(\lambda_1 < X_i \le \lambda_2\right) + \alpha_3^{'} Z_i I\left(\lambda_2 < X_i\right) + \varepsilon_i \quad (3)$$

where the thresholds are ordered so that $\lambda_1 < \lambda_2$.

Empirical results reported in Panel A of table 4 indicate a single threshold effect with respect to the fiscal package whereas we find evidence of a double threshold effect that separates countries based on their governance quality. Note that the focus on single and double thresholds is motivated by the continuous structure of governance quality and fiscal stimulus size, indicating that their effects may exhibit multiple breakpoints where fiscal policy shifts from being effective to ineffective or vice versa.

In light of the findings presented in Panel A, we observe that a stringent lockdown policy does not lead to an economic slowdown in countries with larger fiscal stimulus. We also find that a stringent lockdown policy helps economic recovery in countries with stronger governance quality even if they announce a smaller fiscal package, whereas countries with weaker governance quality – even when announcing larger fiscal packages – are headed toward an economic slowdown. Overall, regression results across thresholds reveal that what really matters in the recovery process is good governance practices rather and not the size of the stimulus. As a consequence, these findings strongly support the hypothesis that stringent lockdown policies contribute to economic recovery in countries with higher governance quality, regardless of the size of the fiscal stimulus.

Table 4
Estimation results

	Panel A: Full Sample		Panel B: Robustness Check	
Regimes	**Coefficients**		**Coefficients**	
Regime 1	-0.045*** (0.009)	-0.027** (0.014)	-0.040*** (0.012)	-0.041*** (0.015)
Regime 2	0.017 (0.015)	0.001 (0.013)	0.038 (0.018)	0.002 (0.016)
Regime 3	–	0.039** (0.019)	–	0.039** (0.019)
Threshold variable	fiscal stimulus	δ	fiscal stimulus	δ
Threshold order	1: 1.395	1: -0.736 2: 0.145	1: 1.798	1: -0.761 2: 0.145

*Note: Regressions include a regime varying constant. The results of regime-varying control variables are not reported. δ is an interaction of governance quality with the reverse of the fiscal stimulus. White-corrected standard errors in parentheses. *** and ** indicate significance at 1% and 5% levels, respectively. The maximum number of thresholds has been set to 2.*

Source: Authors' calculation.

Note that an encompassing sample is likely to lead to biased and inefficient results due to the presence of outliers. Therefore, countries whose per capita income is less than 2,500 U.S. dollars are omitted from the robustness analysis[11] to see whether our result remains consistent. These countries include the following: Burkina Faso, Burundi, Central African Republic, Chad, Democratic Congo, Eritrea, Gambia, Guinea, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Sierra Leone, Togo, Uganda, Yemen, and Zimbabwe. Empirical results presented in Panel B show that our findings are robust to the sample size.

5 DISCUSSION

Public governance is more important than ever during crises such as the COVID-19 pandemic, in view of its economic and social effects. Government structures have been vital to the initial reactions of the countries and will remain so as economies recover and establish "a new normal" after the crisis. Therefore, the implications of this study are highly relevant to governments, not only in addressing the economic aftermath of the COVID-19 pandemic but also in preparing for large potential external shocks in the future.

The actual threshold values obtained from the regression analysis let us identify and compare the country-level interaction terms to see if any country's interaction term has passed the threshold value and if so, what this would mean in practice. Table 5 classifies the countries with respect to threshold values. Notice that countries characterized by strong governance quality and superior institutional

[11] As an additional methodological robustness check, it would be helpful to address potential endogeneity concerns related to governance quality and fiscal stimulus influenced by unobserved country characteristics. While panel data approaches could help mitigate such concerns, our analysis based on cross-sectional data limits is limited in its ability to control for unobserved heterogeneity.

performance (above the threshold value 2) are able to benefit from even smaller fiscal packages whereas less developed countries (below the threshold value 1) find it difficult to mitigate the effects of the pandemic, irrespective of the package size. One can simply infer from this classification that countries with the ability to allocate required resources promptly could respond more forcefully to external shocks due to their structural soundness, and, therefore, buffer the unforeseen impacts of COVID-19 effectively.

Table 5

Country list by threshold level

Below threshold value 1			Above threshold value 2			
Angola	Gabon	Myanmar	Algeria	Denmark	Israel	Saudi Arabia
Bangladesh	Haiti	Nicaragua	Australia	Estonia	Jamaica	Slovak R.
Belarus	Iraq	Nigeria	Austria	Finland	Malaysia	South Korea
Central African R.	Kenya	Republic of Congo	Belgium	France	Mauritius	Spain
Chad	Laos	Tajikistan	Botswana	Georgia	Namibia	Sweden
Democratic Congo	Liberia	Tanzania	Canada	Germany	Netherlands	Switzerland
Ecuador	Libya	Turkmenistan	Chile	Hong Kong	New Zealand	United Arab Emirates
Egypt	Malawi	Uzbekistan	Costa Rica	Hungary	Norway	United Kingdom
Eswatini	Mali	Zimbabwe	Czech R.	Ireland	Portugal	Uruguay

Source: Authors' calculation.

The empirical result that "good governance helps achieve economic recovery whereas increasing fiscal stimulus size can at best help protect against economic slowdown" is an indication of the requirement for structural reforms in which good governance practices are a must (Shifter, 2003; Horton and El-Ganainy, 2012). Thus, the main policy implication for the countries where the pandemic has been the most severe and the blow is hitting the hardest is that strengthening governance is a prerequisite to fully reaping the benefits of the fiscal stimulus and escaping fiscal instability. According to the IMF (2022), the management of public resources through institutional reforms in the public sector as well as a transparent and stable economic and regulatory environment conducive to private sector activities will assist policymakers in achieving long-term goals.

Another important implication of this study is related to a trade-off between short-term benefits and inevitable long-term costs of countercyclical stimulus policies in fighting conventional recessions. Most governments have issued new public debt to fund stimulus packages, particularly in the healthcare sector, social welfare programs, and small- and medium-sized enterprises (Basri, Ing and Schulze, 2022). Given the close association between increased government spending and budget deficits, the outbreak is likely to cause a significant deterioration in public finances in countries with low governance quality, which, in turn, raises debt rollover risks.

In line with the fiscal relief argument proposed by Makin and Layton (2021), the results obtained from this study emphasize that strengthening governance quality helps countries not to suffer much from possible medium- and long-term macroeconomic costs, indicating an implicit relief role. Therefore, an enhanced governance quality might ease the trade-off which is likely to bequeath a smaller economy to future generations. Notice also that automatic stabilizers are associated with the size of the governments and tend to be larger in developed economies. Therefore, one can infer that in countries where governance quality is higher, and, therefore, stabilizers are larger, there may be less need for fiscal stimulus since both approaches help soften the effects of a recession. As a result, governance practices can be considered an implicit automatic stabilizer since efficient resource allocation is directly linked to institutional structure during crises. This argument is in line with assumptions that such countries have better fiscal institutions with the inclusion of tighter spending restrictions and taxation abilities, and that they are less prone to experience binding credit constraints in bad economic conjunctures (Debrun and Kapoor, 2010). In addition, Horton and El-Ganainy (2012) assert that governments are expected to have a well-regulated fiscal strategy during a time of recession to help ensure solvency and address fiscal correction upon recovery and structural reforms as the key elements of this framework. The results obtained from this study bring good governance practices to the fore, both as a commitment to fiscal soundness and as a crucial step for structural reforms. From these perspectives, the lesson we have learned is quite similar to not only the mainstream literature in which economic growth is determined and sustained by governance quality (Williamson, 1984; 1996; Hall and Jones, 1999; Williamson, 2005), but to those addressing the fiscal governance framework drawn by the EU (Hallerberg, Strauch and Von Hagen, 2009; Hallett and Hougaard Jensen, 2012).

Fiscal governance is a crucial determinant of fiscal performance insofar as it can reduce the deficit bias of fiscal policy-making by increasing the effectiveness of public spending (EU Commission, n.d.). Public policies may result in fiscal risks including inefficient expenditures, particularly in emerging countries, given the gradually growing role of public policies to combat the COVID-19 outbreak. By enhancing transparency, efficiency, and accountability as well as maintaining fiscal space, sound fiscal governance can help reduce fiscal risks (Kim, Cho and Molineris, 2020). Moreover, Bascunan (2022) discusses the proposition that the institutional framework enables fiscal policy to be more long-term oriented, highlighting the existence of an intertemporal budget constraint that takes extremely long-time horizons into consideration. According to Bascunan (2022), this is important for handling a shock like the COVID-19 outbreak, both when resources need to be used and when fiscal consolidation is required to preserve the long-term sustainability of public finances. Therefore, governments in countries where good governance practices are not convincing should take necessary actions to improve fiscal governance by considering their own policy environment as well as the experiences of other nations and global best practices. This insight can help policymakers enhance fiscal policy effectiveness during future crises. Moving

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forward, governments should integrate governance-focused reforms as part of their fiscal policy strategies to strengthen resilience against future economic shocks.

The implications of this paper are quite similar to those in the previous literature. For instance, the results of this study are in line with those of Kaplanoglou and Rapanos (2011) indicating that even fiscal consolidation packages would be inadequate without a strong institutional framework that supports commitment to sustainable and growth-oriented long-term plans. In addition, our results are also consistent with the arguments of Bascunan (2022) indicating that countries with higher governance quality are better able to deliver fiscal transfers, subsidies, and guarantees, which allow faster recovery from the COVID-19 shock. Chen et al. (2021) conclude that the adoption of large fiscal stimulus packages is not necessarily sufficient, and there is no one-size-fits-all fiscal policy. Their main policy implication is that countries should develop the most appropriate policies, considering their own economic condition and the severity of the pandemic. Our implication is somewhat consistent with Chen et al. (2021): high-quality governance matters more than the size of the fiscal stimulus. Finally, our results are similar to those of Horton and El-Ganainy (2012), which address the importance of structural reforms as a key element of fiscal soundness. Notice that our findings also challenge some existing assumptions. While previous studies emphasize the size of fiscal stimulus as a key determinant of economic recovery (Deb et al., 2021; Haroutunian, Osterloh and Sławińska, 2021), we find that stimulus size alone is not sufficient.

6 CONCLUSION

This study uses cross-country threshold regressions to examine the role of governance quality in the nexus between lockdown policies and economic recovery during the COVID-19 pandemic. Empirical results indicate that a stringent lockdown policy does not lead to an economic downturn in countries with larger stimulus. We also find that stringent policies do contribute to economic recovery even in countries with smaller fiscal packages if accompanied by governance quality, whereas the opposite leads to an economic slowdown. This study reveals that good governance practices are crucial in determining the effectiveness of fiscal stimulus, particularly in combating the economic aftermath of the lockdown period.

This study makes a distinct contribution to the literature by demonstrating that governance quality plays a crucial role in determining the effectiveness of fiscal stimulus during a crisis. While previous studies primarily focus on the size of fiscal stimulus as a driver of economic recovery, our findings reveal that institutional strength is a critical moderating factor. Using cross-country threshold regressions, we identify non-linear effects that highlight how governance quality shapes the impact of fiscal stimulus. Unlike standard linear approaches, our methodology captures heterogeneous policy responses, which, in turn, make our results more robust and generalizable across different institutional settings. Furthermore, by

introducing governance quality as a structural component of fiscal policy effectiveness, we provide policy-relevant insights that emphasize the need for institutional reforms alongside economic stimulus measures.

The limitations of this study can suggest future research directions. First, it uses an aggregate stimulus index that includes all the adopted fiscal measures. Future attempts may incorporate disaggregated fiscal tools to observe how volatile the results are across those tools. Second, this study discovers the economic recovery response and can easily be extended to other objectives of fiscal policy such as poverty, income inequality, and so on. Third, while we test whether our results remain consistent by excluding only low-income outliers, future studies could further examine how outliers in fiscal stimulus and/or governance quality affect the findings. Finally, future research could extend the framework by incorporating temporal dynamics to analyse how the effects of governance and fiscal stimulus evolve over time.

Disclosure statement

The authors have no conflicts of interest to declare.

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APPENDIX

TABLE A1
Country coverage

Albania	Burundi	Egypt	Hong Kong	Latvia	Nepal	Romania	Tanzania
Algeria	Cambodia	El Salvador	Hungary	Lesotho	Netherlands	Russia	Thailand
Angola	Cameroon	Eritrea	India	Liberia	New Zealand	Rwanda	Togo
Argentina	Canada	Estonia	Indonesia	Libya	Nicaragua	Saudi Arabia	Trinidad Tobago
Australia	Central African Republic	Eswatini	Iran	Lithuania	Niger	Senegal	Tunisia
Austria	Chad	Ethiopia	Iraq	Madagascar	Nigeria	Serbia	Turkey
Azerbaijan	Chile	Finland	Ireland	Malawi	Norway	Sierra Leone	Turkmenistan
Bahrain	China	France	Israel	Malaysia	Oman	Singapore	UAE
Bangladesh	Colombia	Gabon	Italy	Mali	Pakistan	Slovak Republic	Uganda
Belarus	Costa Rica	Gambia	Jamaica	Mauritania	Panama	Slovenia	UK
Belgium	Cote Ivory	Georgia	Japan	Mauritius	Papua New Guinea	South Africa	Ukraine
Benin	Croatia	Germany	Jordan	Mexico	Paraguay	South Korea	United States
Bolivia	Cyprus	Ghana	Kazakhstan	Moldova	Peru	Spain	Uruguay
Bosnia and Herzegovina	Czech Republic	Greece	Kenya	Mongolia	Philippines	Sri Lanka	Uzbekistan
Botswana	Democratic Republic of Congo	Guatemala	Kosovo	Morocco	Poland	Sudan	Vietnam
Brazil	Denmark	Guinea	Kuwait	Mozambique	Portugal	Sweden	Yemen
Bulgaria	Dominican Republic	Haiti	Kyrgyz Republic	Myanmar	Qatar	Switzerland	Zambia
Burkina Faso	Ecuador	Honduras	Laos	Namibia	Republic of Congo	Tajikistan	Zimbabwe