Online Appendix For: Assessing the Impact of Non-Pharmaceutical Interventions on COVID-19: A Combined CCE and Quantile Regression Approach

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A Pre-testing Results

A.1 Cross section dependency test

Pesaran (2003) developed Lagrange Multiplier (LM) and CD4 cross-sectional dependence tests tailored for large panel datasets, with subsequent refinements by Pesaran (2015) and Pesaran (2021). In contrast, Breusch and Pagan (1980) introduced the Breusch-Pagan LM test to assess cross-sectional dependence in smaller panel datasets. The exponent of cross-sectional dependence, proposed by Bailey, Kapetanios, and Pesaran (2016), quantifies the strength of relationships identified by the Pesaran and Breusch tests. A simple consistency estimate of this exponent is given by:

$$\alpha = 1 + \frac{1}{2}\ln\left(\frac{\delta_x^2}{\ln(N)}\right) - \frac{\delta^2}{2N\ln(N)} \tag{1}$$

where α denotes the alpha exponent of cross-sectional dependence, δ_x^2 is the variance of the tested variable, and N represents the variable size. The value of α ranges between 0 and 1, reflecting the strength of relationships. Based on these thresholds, Chudik, Pesaran, and Tosetti (2011) categorizes cross-sectional dependence into four levels: weak ($\alpha = 0$), semi-weak ($0 < \alpha < 0.5$), semi-strong ($0.5 \leq \alpha < 1$), and strong ($\alpha = 1$). The results of the tests are given in table-A4.

A.2 Panel test for slope heterogeneity

Building on a standardized version of Swamy (1970)'s test, Pesaran and Yamagata (2008) introduced a test for slope homogeneity suitable for panel data with large N and T. The standard delta test for slope heterogeneity in large panels, as suggested by Pesaran and Yamagata (2008), involves the following statistics. The Δ statistic and the adjusted Δ statistic, which adjusts for small sample bias :

$$\Delta = \sqrt{N}\left(\frac{1}{N}\sum_{i=1}^{N}\left(t_i^2 - k\right)\right) \quad \text{and} \quad \Delta_{adj} = \sqrt{N}\left(\frac{1}{N}\sum_{i=1}^{N}\left(\frac{t_i^2 - k}{\sqrt{2k}}\right)\right) \tag{2}$$

where: N is the number of cross-sectional units, k is the number of regressors,t_i is the t-statistic of the i-th cross-sectional unit. These statistics test the null hypothesis of slope homogeneity against the alternative hypothesis of slope heterogeneity. A significant Δ or Δ_{adj} indicates the presence of slope heterogeneity across the cross-sectional units. The results of slope heterogeneity estimated using Bersvendsen and Ditzen (2021) is given in table-A8.

A.3 Panel unit root test

For panels exhibiting clear cross-sectional dependence, Kapetanios, Pesaran, and Yamagata (2011) introduced the CIPS test, a second-generation panel unit root test. Later, Westerlund, Hosseinkouchack, and Solberger (2016) derived its asymptotic properties, enhancing its robustness and making it superior to other panel unit root tests. The CIPS test accommodates cross-sectional dependence by incorporating weighted lag averages and differences for each panel unit, making it suitable for this study. The test is based on the cross-sectional augmented Dickey-Fuller (CADF) test and is formulated as follows:

$$\Delta x_{it} = \mu_i + \beta_i x_{i,t-1} + \rho_i x_{t-1} + \sum_{j=0}^{p} d_{ij}\Delta x_{t-j} + \sum_{j=1}^{p} \tau_{ij}\Delta x_{i,t-j} + \epsilon_{it} \tag{3}$$

where x_{t-1} and Δx_{t-j} represent the cross-sectional lag averages and the first differences, with coefficients ρ_i and d_{ij}, respectively. μ_i and β_i denote the constants and drifts, while τ_{ij} is the lead

factor. The CIPS statistic, calculated using CADF statistics, is given by:

$$\text{CIPS statistic} = \frac{N-1}{N} \sum_{i=1}^{N} \text{CADF}_i \tag{4}$$

However, after finding slope heterogeneity, we use Herwartz, Maxand, Raters, and Walle (2018) panel unit root test that is useful for heteroscedastic panels. The results of the panel unit root tests are presented in Table A5.

A.4 Panel structural break test

I use Ditzen, Karavias, and Westerlund (2021)'s sequential test for multiple breaks at unknown breakpoints to find possible structural breaks in our data. For which I the sequential F-statistic to test for additional breaks:

$$F_{k+1} = \frac{(\text{RSS}_k - \text{RSS}_{k+1})/(k+1)}{\text{RSS}_{k+1}/(NT - 2k - 1)} \tag{5}$$

where NT is the total number of observations. Compare F_{k+1} to the critical value to determine if an additional break is significant. The test results are presented tn in table-A7.

A.5 Panel test for cointegration

The error correction panel cointegration test developed by Westerlund and Edgerton (2007) was utilized in this study, following the methodology outlined by Westerlund (2007). This test accommodates both within-unit and between-unit cross-sectional dependence by incorporating error correction terms in its computations. It examines two null hypotheses: (1) the absence of cointegration within individual panel units and (2) the absence of cointegration across all panel units. For the first null hypothesis, the group mean statistics G_τ and G_α are calculated using the estimated adjustment term θ_i as follows:

$$G_\tau = \frac{1}{N} \sum_{i=1}^{N} \frac{\theta_i}{\text{SE}(\theta_i)} \quad \text{and} \quad G_\alpha = \frac{1}{N} \sum_{i=1}^{N} \frac{T\theta_i}{\theta_i(1)} \tag{6}$$

For the second null hypothesis, the group mean statistics are computed using these expressions:

$$P_\tau = \frac{\hat{\theta}_i}{\text{SE}(\hat{\theta}_i)} \quad \text{and} \quad P_\alpha = T\hat{\theta}_i \tag{7}$$

The results of Westerlund (2007)'s panel cointegration test are presented in table-A6.

B Tables

B.1 OxCGRT indices and variables of the study

Table A1: OxCGRT indices and variables of the study

OxCGRT Indicators			Targeted/general		OxCGRT Indices			
ID	Name	Type			GRI	CNI	STI	ESI
C1	School closing	Ordinal	Geographic	C1	x	x	x	
C2	Workplace closing	Ordinal	Geographic	C2	x	x	x	
C3	Cancel public events	Ordinal	Geographic	C3	x	x	x	
C4	Restrictions on gathering size	Ordinal	Geographic	C4	x	x	x	
C5	Close public transport	Ordinal	Geographic	C5	x	x	x	
C6	Stay-at-home requirements	Ordinal	Geographic	C6	x	x	x	
C7	Restrictions on internal movement	Ordinal	Geographic	C7	x	x	x	
C8	Restrictions on international travel	Ordinal	No	C8	x	x	x	
Economic response				E1	x			x
E1	Income support	Ordinal	Sectoral	E2	x			x
E2	Debt/contract relief for households	Ordinal	No	E3				
E3	Fiscal measures	Numerical	No	E4				
E4	Giving international support	Numerical	No	H1	x	x	x	
Health systems				H2	x	x		
H1	Public information campaign	Ordinal	Geographic	H3	x	x		
H2	Testing policy	Ordinal	No	H4				
H3	Contact tracing	Ordinal	No	H5				
H4	Emergency investment in health care	Numerical	No	H6	x	x		
H5	Investment in COVID-19 vaccines	Numerical	No	H7	x	x		
H6	Facial coverings	Ordinal	Geographic	H8	x	x		
H7	Vaccination policy	Ordinal	Funding					
H8	Protection of elderly people	Ordinal	Geographic	k	16	14	9	2

Notes: This table presents the OxCGRT indicators categorized by their type and target group, along with the associated indices. The indicators are grouped into three main categories: containment and closure policies, economic response, and health systems. The indices (GRI, CNI, STI, ESI) are used to measure the severity of the implemented policies.

B.2 Table of summary statistics of variable quantiles

Table A2: Summary statistics of variable quantiles

QUINTILES	*Mean*	*p50*	*SD*	*Min*	*Max*	*Skewness*	*Kurtosis*	*VARIABLES*	*QUINTILES*	*Mean*	*p50*	*SD*	*Min*	*Max*	*Skewness*	*Kurtosis*	*VARIABLES*
Q1	-0.005	0.100	0.395	-3.323	0.100	-4.505	25.173		Q1	2.755	3.046	1.779	0.100	4.605	-0.342	1.497	
Q2	3.370	3.578	1.520	0.121	5.597	-0.399	2.082		Q2	4.469	4.477	0.103	4.113	4.605	-0.481	2.635	
Q3	7.267	7.386	0.815	5.598	8.464	-0.345	1.940		Q3	4.186	4.240	0.247	3.478	4.552	-0.671	2.510	
Q4	9.123	9.132	0.358	8.470	9.715	-0.095	1.844		Q4	4.037	4.082	0.293	3.290	4.577	-0.307	2.062	
Q5	10.142	10.150	0.231	9.715	10.514	-0.132	1.824	LnDEATHS	Q5	3.964	4.050	0.394	2.631	4.577	-0.999	3.865	LnCONTAINMENT
Q6	10.814	10.820	0.163	10.515	11.078	-0.118	1.807		Q6	3.748	4.050	0.654	2.408	4.577	-0.786	2.040	
Q7	11.310	11.307	0.133	11.079	11.545	0.016	1.805		Q7	3.365	3.520	0.726	2.408	4.477	0.041	1.261	
Q8	11.795	11.784	0.151	11.545	12.069	0.107	1.808		Q8	3.380	3.561	0.698	2.408	4.577	-0.018	1.378	
Q9	12.349	12.345	0.165	12.070	12.655	0.104	1.861		Q9	3.069	2.631	0.641	2.408	4.561	0.816	2.026	
Q10	13.192	13.101	0.410	12.655	14.280	0.601	2.371		Q10	2.901	2.631	0.579	2.408	4.293	1.417	3.321	
Q1	1.632	0.100	2.824	-2.388	11.693	1.638	4.831		Q1	2.547	2.604	1.805	-0.265	4.531	-0.193	1.337	
Q2	7.994	8.149	2.034	2.208	12.698	-0.178	2.582		Q2	4.398	4.404	0.067	4.145	4.531	-0.454	2.848	
Q3	11.987	12.116	1.167	8.690	14.299	-0.406	2.593		Q3	4.200	4.235	0.175	3.758	4.485	-0.567	2.266	
Q4	13.716	13.714	0.675	11.740	15.310	-0.096	2.876		Q4	4.134	4.135	0.200	3.628	4.563	-0.102	2.224	
Q5	14.611	14.572	0.541	13.187	16.174	0.315	3.185	LnINFECTIONS	Q5	4.123	4.142	0.228	3.470	4.563	-0.533	2.945	LnSTRINGENCY
Q6	15.311	15.237	0.483	13.999	16.692	0.433	3.223		Q6	4.024	4.154	0.340	3.288	4.537	-0.628	1.942	
Q7	15.817	15.736	0.447	14.681	17.174	0.549	3.315		Q7	3.835	3.863	0.367	3.288	4.486	0.112	1.469	
Q8	16.222	16.164	0.449	15.133	17.765	0.836	4.137		Q8	3.853	3.876	0.354	3.145	4.548	-0.004	1.715	
Q9	16.668	16.619	0.450	15.658	18.313	1.316	5.974		Q9	3.693	3.524	0.327	3.145	4.537	0.802	2.396	
Q10	17.392	17.332	0.492	16.323	18.469	0.209	2.293		Q10	3.600	3.470	0.295	3.145	4.309	1.222	3.288	
Q1	2.499	2.543	1.819	-0.403	4.507	-0.156	1.307		Q1	1.941	0.100	2.060	0.100	4.317	0.240	1.079	
Q2	4.386	4.391	0.060	4.168	4.507	-0.451	2.833		Q2	4.295	4.317	0.060	4.135	4.317	-2.278	6.227	
Q3	4.212	4.238	0.150	3.847	4.466	-0.525	2.186		Q3	4.274	4.317	0.162	3.219	4.317	-5.086	30.957	
Q4	4.141	4.152	0.166	3.704	4.501	-0.230	2.421		Q4	4.101	4.317	0.364	2.526	4.317	-1.791	5.771	
Q5	4.115	4.136	0.202	3.491	4.501	-0.736	3.510	LnOVERALL	Q5	3.982	3.912	0.323	3.219	4.317	-0.855	3.257	LnECONOMIC
Q6	3.991	4.127	0.341	3.219	4.466	-0.764	2.121		Q6	3.606	3.912	0.762	0.100	4.317	-3.059	14.285	
Q7	3.788	3.831	0.391	3.154	4.430	-0.069	1.485		Q7	2.813	3.912	1.637	0.100	4.317	-0.971	2.116	
Q8	3.802	3.843	0.372	3.011	4.510	-0.115	1.743		Q8	2.917	3.219	1.461	0.100	4.317	-1.302	2.941	
Q9	3.621	3.459	0.349	3.011	4.513	0.761	2.396		Q9	2.210	3.219	1.647	0.100	4.605	-0.432	1.343	
Q10	3.512	3.357	0.332	3.011	4.279	1.155	3.108		Q10	1.601	0.100	1.700	0.100	4.605	0.333	1.287	

Notes: This table provides summary statistics for variable quantiles, including mean, median (p50), standard deviation (SD), minimum (Min), and maximum (Max) values, along with skewness and kurtosis measures. The statistics are presented for different quantiles (Q1 to Q10) of the variables LnDEATHS, LnCONTAINMENT, LnINFECTIONS, LnSTRINGENCY, LnOVERALL, and LnECONOMIC.

B.3 Pre-testing Result Tables

Table A3: The Matrix of correlation

	LnSTRINGENCY	LnCONTAINMENT	LnECONOMIC	LnOVERALL	LnDEATHS	LnINFECTIONS
LnSTRINGENCY	1					
LnCONTAINMENT	0.9634	1				
LnECONOMIC	0.2618	0.4072	1			
LnOVERALL	-0.0274	0.1073	0.9214	1		
LnDEATHS	0.2782	0.4213	0.9976	0.9157	1	
LnINFECTIONS	-0.0467	0.0752	0.7238	0.7693	0.6824	1

Notes: This table presents the correlation matrix for the variables LnSTRINGENCY, LnCONTAINMENT, LnECONOMIC, LnOVERALL, LnDEATHS, and LnINFECTIONS. It shows the strength and direction of the linear relationship between these variables.

Table A4: Cross-Sectional Dependence Results

Variable	BPLM	PLM	PCD	α
LnSTRINGENCY	41743.141**	196.791*	271.13**	1.00098
LnCONTAINMENT	42921.748**	184.673*	279.73**	1.0009
LnECONOMIC	44841.876**	171.918*	263.98**	1.000919
LnOVERALL	42763.034**	182.985*	280.67**	1.00091
LnDEATHS	18351.199**	99.624*	279.44**	1.0009
LnINFECTIONS	19485.788**	114.406*	284.36**	1.000

Notes: This table displays the results of cross-sectional dependence tests for the variables. The metrics include BPLM (Breusch Pagan Lagrange Multiplier), PLM (Pesaran Lagrange Multiplier), PCD (Pesaran CD), and the alpha exponent, indicating the degree of cross-sectional dependence. An alpha value close to 1 suggests strong cross-sectional dependence. Alpha is a cross-sectional dependence exponent estimate that tests the level of identified cross-sectional dependence in the variable. With this test, if $\alpha \approx 1$ implies strong cross-sectional dependence. BPLM: Breusch Pagan Lagrange Multiplier, PLM: Pesaran Lagrange Multiplier, PCD: Pesaran CD.

Table A5: Results from panel unit root analysis

Variable at Level	CIPS - Pesaran (2007)	Herwartz et al. (2018)
LnSTRINGENCY	-2.807***	1.6869
LnCONTAINMENT	-2.967***	1.3531
LnECONOMIC	-1.729	1.5807
LnOVERALL	-2.947***	1.1112
LnDEATHS	-2.355***	1.5807
LnINFECTIONS	-3.063***	2.0150
Variable at 1st Difference with Trend	**CIPS - Pesaran (2007)**	**Herwartz et al. (2018)**
LnSTRINGENCY	-6.055**	-2.3741**
LnCONTAINMENT	-6.166**	-1.8344*
LnECONOMIC	-6.393**	-1.5667*
LnOVERALL	-6.124**	-1.7357**
LnDEATHS	-5.034**	-2.9020**
LnINFECTIONS	-5.500**	-2.9890**

Notes: This table summarizes the panel unit root test results for variables at both levels and first differences, using the CIPS (Pesaran, 2007) and Herwartz et al. (2018) methods. The results indicate the stationarity of the variables, with significance levels denoted by asterisks.

Table A6: Panel Cointegration results

Statistic	Value	Z-value	P-value
Gt	-4.950***	-13.888	0.00
Ga	-87.907***	-50.825	0.00
Pt	-17.404***	-3.490	0.00
Pa	-56.851***	-31.391	0.00

Notes: The panel cointegration test results are presented in this table, showing the test statistics (Gt, Ga, Pt, Pa) along with their Z-values and P-values. The results indicate the presence of cointegration among the variables at conventional significance levels.

Table A7: Sequential test for multiple breaks at unknown breakpoints (Ditzen, Karavias & Westerlund. 2021)

	Bai & Perron Critical Values			
	Test Statistic	**1% Critical Value**	**5% Critical Value**	**10% Critical Value**
F(10)	4.01	12.29	8.58	7.04
F(21)	2.33	13.89	10.13	8.51
F(32)	0.78	14.8	11.14	9.41
F(43)	0.26	15.28	11.83	10.04
F(54)	0.43	15.76	12.25	10.58
Detected number of breaks:	-	-	-	

Notes: This table provides the results of a sequential test for multiple breaks at unknown breakpoints using the methodology of Ditzen, Karavias & Westerlund (2021). The test statistics (F-values) are compared against critical values for different significance levels (1%, 5%, 10%). The table indicates whether structural breaks are detected.

Table A8: Tests' results from slope heterogeneity analysis

Test Statistic	Pesaran and Yamagata (2008)	Blomquist and Westerlund (2013)	Bersvendsen and Ditzen (2021)
Delta	8.43***	6.67***	3.602***
Adj. Delta	8.627***	6.826***	3.719***

Notes: This table reports the results of slope heterogeneity tests, using methods proposed by Pesaran and Yamagata (2008), Blomquist and Westerlund (2013) and Bersvendsen and Ditzen (2021). The Delta and Adjusted Delta statistics are shown, with asterisks indicating significance levels.

B.4 Complete Result Tables

Table A9: Impact of Overall Government Response to COVID-19 Incidence

Dependent Variables	LnDEATHS				LnINFECTIONS			
	CS-ARDL		IV (CS-ARDL)		CS-ARDL		IV (CS-ARDL)	
	(1)		(2)		(3)		(4)	
	Short Run							
LnINFECTIONS	0.688***	(0.206)	0.835***	(0.0101)				
L.LnINFECTIONS	0.0496	(0.0867)	0.125***	(0.0134)			-0.111***	(0.0122)
LnDEATHS					0.476***	(0.124)	1.167***	(0.0151)
L.LnDEATHS	-0.100***	(0.0189)	-0.187***	(0.0174)	0.00629	(0.0474)	0.168***	(0.0135)
LnOVERALL	-0.405***	(0.0535)	-0.824***	(0.0718)	0.547***	(0.0445)	0.969***	(0.0698)
L.LnOVERALL	-0.185***	(0.0561)			-0.0671***	(0.0171)	-0.0682***	(0.0394)
Constant	0.423**	(0.130)	1.122***	(0.217)	-0.448***	(0.0729)	-0.758***	(0.115)
	Long Run							
Lr_LnINFECTIONS	-0.950***	(0.0867)	-0.875***	(0.0134)				
Lr_LnOVERALL	-0.194***	(0.0561)	-0.960***	(0.0895)	-1.067***	(0.0171)	-1.068***	(0.0394)
Lr_LnDEATHS					0.00590	(0.0474)	0.162***	(0.0137)
Lr_Constant	0.445***	(0.130)	1.310***	(0.270)	-0.420***	(0.0729)	-0.748***	(0.118)
N	4950		5115		4950		5115	
CSD (P-Value)	0.38	(0.703)	0.34	(0.734)	0.60	(0.551)	-1.02	(0.306)
Standard errors in parentheses — * p<0.05, ** p<0.01, *** p<0.001								

Notes: This table presents information on the estimates presented in Table-2, in the main document. It shows that, in the short run, the CS-ARDL model indicates that a percentage increase in infection correlates with a 0.688% rise in mortality rates, highlighting the immediate impact of rising infections on deaths. The IV (CS-ARDL) model strengthens these findings, with the coefficient for LnINFECTIONS increasing to 0.835***. In the long run, a significant negative long-run coefficient for infections on deaths (-0.950***) indicates that while infections initially increase deaths, the long-term relationship may reflect improved healthcare responses or changes in the population's vulnerability. The table presents standard errors under parentheses. * p<0.05, ** p<0.01, *** p<0.001

Table A10: Impact of Stringency Measures to COVID-19 Incidence

Dependent Variables	LnDEATHS				LnINFECTIONS			
	CS-ARDL		IV (CS-ARDL)		CS-ARDL		IV(CS-ARDL)	
	(5)		(6)		(7)		(8)	
	Short Run							
LnINFECTIONS	0.697***	(0.194)	0.784***	(0.00981)				
L.LnINFECTIONS	0.0380	(0.104)	0.169***	(0.0155)			-0.123***	(0.0154)
LnDEATHS					0.485***	(0.131)	1.240***	(0.0143)
L.LnDEATHS	-0.0932***	(0.0222)	-0.257***	(0.0216)	0.0108	(0.0543)	0.193***	(0.0191)
LnSTRINGENCY	-0.281***	(0.0402)	-0.722***	(0.0701)	0.446***	(0.0368)	0.763***	(0.0470)
L.LnSTRINGENCY	-0.224***	(0.0633)			-0.122***	(0.0229)	-0.173*	(0.0735)
Constant	0.153	(0.105)	1.286***	(0.265)	-0.122	(0.0676)	-0.139	(0.292)
	Long Run							
Lr_LnINFECTIONS	-0.962***	(0.104)	-0.831***	(0.0155)				
Lr_LnSTRINGENCY	-0.232***	(0.0633)	-0.899***	(0.0974)	-1.122***	(0.0229)	-1.173***	(0.0735)
Lr_LnDEATHS					0.00959	(0.0543)	0.179***	(0.0194)
Lr_Constant	0.159	(0.105)	1.618***	(0.364)	-0.109	(0.0676)	-0.334*	(0.131)
N	4950		5115		4950		5115	
CSD (P-Value)	-0.97	(0.33)	-2.19	(0.67)	0.40	(0.688)	-1.81	(0.21)
Standard errors in parentheses — * p<0.05, ** p<0.01, *** p<0.001								

Notes: This table presents information on the estimates presented in Table-3, in the main document. The CS-ARDL model results in the table identify a percentage increase in infection rates corresponding to a 0.691% increase in mortality. This reflects the immediate pressure exerted by rising infections on health systems. The table presents standard errors under parentheses. * p<0.05, ** p<0.01, *** p<0.001

Table A11: Impact of Containment Measures to COVID-19 Incidence

Dependent Variables	LnDEATHS				LnINFECTIONS			
	CS-ARDL		IV (CS-ARDL)		CS-ARDL		IV(CS-ARDL)	
	(9)		(10)		(11)		(12)	
	Short Run							
LnINFECTIONS	0.691***	(0.208)	0.837***	(0.0102)				
L.LnINFECTIONS	0.0510	(0.0860)	0.138***	(0.0132)			-0.124***	(0.0128)
LnDEATHS					0.479***	(0.125)	1.164***	(0.0151)
L.LnDEATHS	-0.109***	(0.0188)	-0.201***	(0.0170)	0.00868	(0.0446)	0.182***	(0.0140)
LnCONTAINMENT	-0.406***	(0.0531)	-0.843***	(0.0756)	0.550***	(0.0454)	0.993***	(0.0738)
L.LnCONTAINMENT	-0.184***	(0.0554)			-0.0730***	(0.0158)	-0.0734***	(0.0397)
Constant	0.425**	(0.138)	1.151***	(0.233)	-0.445***	(0.0756)	-0.783***	(0.124)
	Long Run							
Lr_LnINFECTIONS	-0.949***	(0.0860)	-0.862***	(0.0132)				
Lr_LnCONTAINMENT	-0.194***	(0.0554)	-0.998***	(0.0953)	-1.073***	(0.0158)	-1.073***	(0.0397)
Lr_LnDEATHS					0.00809	(0.0446)	0.174***	(0.0143)
Lr_Constant	0.448**	(0.138)	1.361***	(0.293)	-0.415***	(0.0756)	-0.759***	(0.121)
N	4950		5115		4950		5115	
CSD (P-Value)	-0.09	(0.929)	-2.44	(0.334)	-0.42	(0.671)	-3.17	(0.306)
Standard errors in parentheses — * p<0.05, ** p<0.01, *** p<0.001								

Notes: This table presents information on the estimates presented in Table-4, in the main document. This table presents the results of short-run and long-run estimations using CS-ARDL and IV (CS-ARDL) models for the dependent variables LnDEATHS and LnINFECTIONS. The last row includes the number of observations (N) and the p-values for the cross-sectional dependence (CSD) test.The table presents standard errors under parentheses. * p<0.05, ** p<0.01, *** p<0.001

Table A12: Impact of Economic Support Measures to COVID-19 Incidence

Dependent Variables	LnDEATHS				LnINFECTIONS			
	CS-ARDL		IV (CS-ARDL)		CS-ARDL		IV(CS-ARDL)	
	(13)		(14)		(15)		(16)	
	Short Run							
LnINFECTIONS	0.640**	(0.195)	0.793***	(0.0104)				
L.LnINFECTIONS	0.0674	(0.101)	0.0902***	(0.0184)			-0.0352**	(0.0115)
LnDEATHS					0.532***	(0.145)	1.220***	(0.0161)
L.LnDEATHS	-0.0762**	(0.0257)	-0.163***	(0.0255)	-0.0150	(0.0695)	0.0807***	(0.0114)
LnECONOMIC	-0.189***	(0.0373)	-0.429***	(0.0422)	0.235***	(0.0277)	0.451***	(0.0444)
L.LnECONOMIC	-0.0995**	(0.0372)			-0.0280	(0.0259)	-0.0950*	(0.0413)
Constant	0.177**	(0.0627)	0.150	(0.0977)	0.152	(0.0777)	0.774***	(0.155)
	Long Run							
Lr_LnINFECTIONS	-0.933***	(0.101)	-0.910***	(0.0184)				
Lr_LnECONOMIC	-0.107**	(0.0372)	-0.483***	(0.0488)	-1.028***	(0.0259)	-1.095***	(0.0413)
Lr_LnDEATHS					-0.0146	(0.0695)	0.0801***	(0.0115)
Lr_Constant	0.190**	(0.0627)	0.193	(0.121)	0.148	(0.0777)	0.624***	(0.104)
N	4950		5115		4950		5115	
CSD (P-Value)	-1.17	(0.240)	0.96	(0.336)	2.09	(0.673)	-5.44	(0.253)
Standard errors in parentheses — * p<0.05, ** p<0.01, *** p<0.001								

Notes: This table presents information on the estimates presented in Table-5, in the main document. In the long run, the coefficient for infections on deaths becomes significantly negative (-0.962***), implying that initial spikes in mortality due to infections do not persist at the same rate, possibly due to adaptive healthcare responses or changes in population vulnerability. The table also indicates a significant negative coefficient for lagged infections (-0.831***), reinforcing the importance of maintaining stringent measures over time to ensure long-term effectiveness. The table presents standard errors under parentheses. * p<0.05, ** p<0.01, *** p<0.001

B.5 State-wise impacts of LnOVERALL on LnDEATHS

Table A13: The coefficients of the state-wise impact of LnOVERALL on deaths due to COVID-19 in the Short-term

State	Coefficient	Std. Dev.	t-value	p-value	Lower 95% CI	Upper 95% CI
Andaman and Nicobar	-1.539	0.073	-21.120	0.000	-1.682	-1.396
Andhra Pradesh	-0.548	0.071	-7.750	0.000	-0.686	-0.409
Arunachal Pradesh	-0.839	0.069	-12.170	0.000	-0.974	-0.704
Assam	-0.934	0.075	-12.500	0.000	-1.080	-0.787
Bihar	-0.975	0.074	-13.190	0.000	-1.120	-0.830
Chandigarh	-0.857	0.072	-11.950	0.000	-0.998	-0.717
Chhattisgarh	-0.880	0.071	-12.390	0.000	-1.019	-0.741
Delhi	-0.551	0.074	-7.400	0.000	-0.697	-0.405
Goa	-1.197	0.074	-16.230	0.000	-1.342	-1.053
Gujarat	-0.194	0.072	-2.680	0.007	-0.335	-0.052
Haryana	-0.774	0.082	-9.460	0.000	-0.935	-0.614
Himachal Pradesh	-0.919	0.085	-10.850	0.000	-1.086	-0.753
Jammu and Kashmir	-0.681	0.071	-9.650	0.000	-0.819	-0.543
Jharkhand	-0.710	0.077	-9.180	0.000	-0.861	-0.558
Karnataka	-0.606	0.071	-8.490	0.000	-0.746	-0.466
Kerala	-1.088	0.071	-15.400	0.000	-1.226	-0.949
Madhya Pradesh	-0.422	0.073	-5.750	0.000	-0.566	-0.278
Maharashtra	-0.560	0.068	-8.210	0.000	-0.693	-0.426
Manipur	-1.179	0.071	-16.640	0.000	-1.317	-1.040
Meghalaya	-0.302	0.073	-4.150	0.000	-0.445	-0.159
Mizoram	-2.438	0.096	-25.330	0.000	-2.627	-2.249
Nagaland	-0.897	0.071	-12.630	0.000	-1.036	-0.758
Odisha	-0.783	0.073	-10.780	0.000	-0.926	-0.641
Puducherry	-0.542	0.072	-7.570	0.000	-0.682	-0.402
Punjab	-0.844	0.070	-12.000	0.000	-0.982	-0.706
Rajasthan	-0.571	0.073	-7.820	0.000	-0.714	-0.428
Sikkim	-0.739	0.069	-10.660	0.000	-0.875	-0.603
Tamil Nadu	-0.532	0.082	-6.520	0.000	-0.692	-0.372
Telangana	-0.782	0.078	-10.050	0.000	-0.935	-0.630
Tripura	-1.396	0.104	-13.450	0.000	-1.600	-1.193
Uttar Pradesh	-0.701	0.080	-8.790	0.000	-0.858	-0.545
Uttarakhand	-0.863	0.072	-12.050	0.000	-1.004	-0.723
West Bengal	-0.354	0.072	-4.890	0.000	-0.496	-0.212

Notes: This table presents the short-term impact coefficients of the variable LnOVERALL on COVID-19-related deaths across different Indian states. The coefficients are accompanied by standard deviations, t-values, p-values, and 95% confidence intervals (CI), indicating the statistical significance and magnitude of the effects.

Table A14: The coefficients of the state-wise impact of LnOVERALL on deaths due to COVID-19 in the long-term

State	Coefficient	Std. Dev.	t-value	p-value	Lower 95% CI	Upper 95% CI
Andaman and Nicobar	-1.614	0.091	-17.820	0.000	-1.792	-1.437
Andhra Pradesh	-0.591	0.083	-7.160	0.000	-0.753	-0.429
Arunachal Pradesh	-1.073	0.092	-11.690	0.000	-1.253	-0.893
Assam	-1.250	0.104	-12.000	0.000	-1.454	-1.046
Bihar	-1.180	0.093	-12.740	0.000	-1.362	-0.999
Chandigarh	-0.905	0.088	-10.340	0.000	-1.077	-0.734
Chhattisgarh	-1.018	0.089	-11.400	0.000	-1.193	-0.843
Delhi	-0.588	0.091	-6.490	0.000	-0.766	-0.410
Goa	-1.328	0.093	-14.200	0.000	-1.511	-1.145
Gujarat	-0.193	0.077	-2.520	0.012	-0.344	-0.043
Haryana	-1.041	0.116	-8.940	0.000	-1.270	-0.813
Himachal Pradesh	-1.095	0.114	-9.640	0.000	-1.318	-0.872
Jammu and Kashmir	-0.865	0.093	-9.260	0.000	-1.048	-0.682
Jharkhand	-0.766	0.095	-8.090	0.000	-0.951	-0.580
Karnataka	-0.664	0.090	-7.350	0.000	-0.841	-0.487
Kerala	-1.307	0.091	-14.440	0.000	-1.485	-1.130
Madhya Pradesh	-0.449	0.090	-5.010	0.000	-0.624	-0.273
Maharashtra	-0.833	0.102	-8.150	0.000	-1.034	-0.633
Manipur	-1.328	0.086	-15.380	0.000	-1.497	-1.159
Meghalaya	-0.325	0.084	-3.860	0.000	-0.490	-0.160
Mizoram	-3.079	0.128	-24.000	0.000	-3.331	-2.828
Nagaland	-1.174	0.094	-12.480	0.000	-1.358	-0.989
Odisha	-0.897	0.088	-10.150	0.000	-1.070	-0.724
Puducherry	-0.605	0.088	-6.860	0.000	-0.778	-0.432
Punjab	-0.899	0.087	-10.330	0.000	-1.070	-0.728
Rajasthan	-0.602	0.083	-7.240	0.000	-0.765	-0.439
Sikkim	-0.795	0.080	-9.990	0.000	-0.952	-0.639
Tamil Nadu	-0.596	0.096	-6.210	0.000	-0.783	-0.408
Telangana	-0.836	0.093	-9.000	0.000	-1.019	-0.654
Tripura	-1.602	0.132	-12.150	0.000	-1.860	-1.343
Uttar Pradesh	-0.752	0.095	-7.940	0.000	-0.937	-0.566
Uttarakhand	-1.060	0.097	-10.910	0.000	-1.250	-0.869
West Bengal	-0.378	0.083	-4.530	0.000	-0.541	-0.214

Notes: This table displays the long-term impact coefficients of the variable LnOVERALL on COVID-19-related deaths across various Indian states. Each entry includes the coefficient, standard deviation, t-value, p-value, and 95% confidence intervals (CI), providing a comprehensive view of the statistical significance and strength of the long-term effects.

B.6 Results of the quantile regression

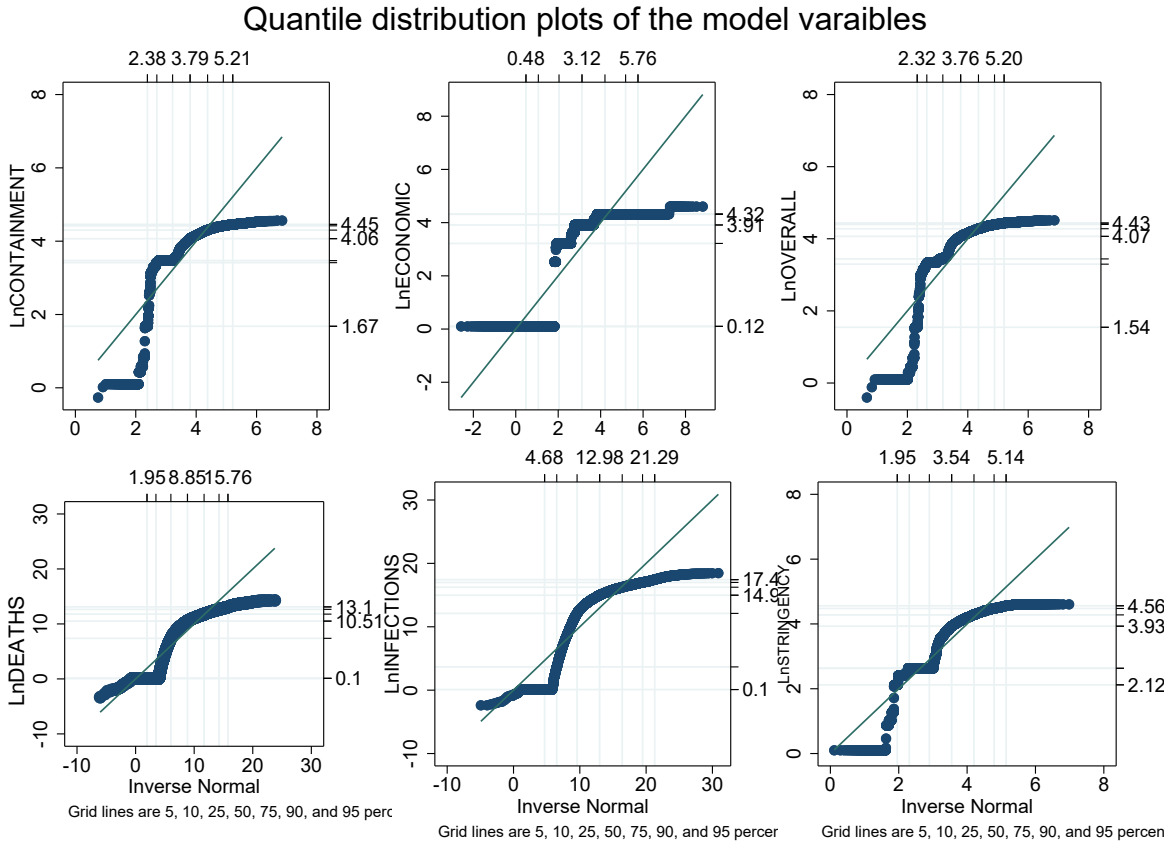

Figure A1: Quantile distribution plots of all variables.

Notes: Quantile distribution plots for the model variables, including LnCONTAINMENT, LnECONOMIC, LnOVERALL, LnDEATHS, LnINFECTIONS, and LnSTRINGENCY. These plots display the distribution of the variables across different quantiles, highlighting the variability and range of the data. The grid lines correspond to the 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentiles.

	(RQR - Borgen, et al. 2021)				(QRProcess - Chernozhukov, et al. 2021)			
Q1	**LnDEATHS (1)**		**LnINFECTIONS (2)**		**LnDEATHS (3)**		**LnINFECTIONS (4)**	
LnINFECTIONS					0.973***	(0.0101)		
LnOVERALL	–	–	1.049***	(0.0623)	-1.428***	(0.0467)	1.447***	(0.0921)
Constant	–	–	1.975***	(0.183)	0.145**	(0.0492)	-2.552***	(0.206)
Q2								
LnINFECTIONS					0.922***	(0.00457)		
LnOVERALL	0.920***	(0.0550)	2.134***	(0.0469)	-1.055***	(0.0208)	2.422***	(0.0594)
Constant	2.892***	(0.196)	6.931***	(0.194)	0.113***	(0.0330)	-0.977***	(0.144)
Q3								
LnINFECTIONS					0.898***	(0.00483)		
LnOVERALL	-3.019***	(0.235)	-3.043***	(0.228)	-0.882***	(0.0215)	3.074***	(0.0496)
Constant	8.384***	(0.0991)	13.44***	(0.0814)	0.0984***	(0.0274)	-0.207	(0.185)
Q4								
LnINFECTIONS					0.875***	(0.00393)		
LnOVERALL	-3.560***	(0.148)	-3.455***	(0.139)	-0.726***	(0.0159)	3.369***	(0.0441)
Constant	9.521***	(0.0463)	14.15***	(0.0368)	0.0852***	(0.0161)	-0.237	(0.177)
Q5								
LnINFECTIONS					0.866***	(0.00331)		
LnOVERALL	-3.150***	(0.162)	-3.289***	(0.148)	-0.649***	(0.0137)	1.730	(1.610)
Constant	10.08***	(0.0430)	14.65***	(0.0355)	0.0783***	(0.0236)	7.432	(6.670)
Q6								
LnINFECTIONS					0.851***	(0.00390)		
LnOVERALL	-2.819***	(0.167)	-3.102***	(0.157)	-0.577***	(0.0155)	-0.882***	(0.195)
Constant	10.64***	(0.0377)	15.16***	(0.0335)	0.182***	(0.0234)	18.77***	(0.761)
Q7								
LnINFECTIONS					0.836***	(0.00423)		
LnOVERALL	-2.715***	(0.169)	-2.791***	(0.165)	-0.498***	(0.0163)	-1.158***	(0.132)
Constant	11.12***	(0.0336)	15.56***	(0.0315)	0.238***	(0.0243)	20.24***	(0.508)
Q8								
LnINFECTIONS					0.814***	(0.00486)		
LnOVERALL	-2.439***	(0.174)	-2.430***	(0.165)	-0.456***	(0.0195)	-1.292***	(0.0987)
Constant	11.55***	(0.0317)	15.93***	(0.0297)	0.536***	(0.0737)	21.10***	(0.378)
Q9								
LnINFECTIONS					0.788***	(0.00497)		
LnOVERALL	-2.072***	(0.174)	-2.164***	(0.162)	-0.316***	(0.0262)	-1.207***	(0.0760)
Constant	11.96***	(0.0318)	16.34***	(0.0287)	0.563***	(0.0452)	21.09***	(0.288)
Q10								
LnINFECTIONS					0.756***	(0.00416)		
LnOVERALL	-1.655***	(0.186)	-1.770***	(0.169)	-0.280***	(0.0375)	-1.303***	(0.0748)
Constant	12.79***	(0.0371)	17.11***	(0.0335)	1.252***	(0.178)	22.27***	(0.286)
N	5115		5115		5148		5148	
Standard errors in parentheses — = p< 0.05, ** p<0.01, *** p<0.001*								

Table A15: Impact of **Overall Government Response** on COVID-19 Incidence: Quantile Regression Results

Notes: This table shows the impact of Overall Government Response on COVID-19 incidence, measured by LnDEATHS and LnINFECTIONS, across different quantiles. The results are based on two methods: Regular Quantile Regression (RQR) by Borgen et al. (2021) and Quantile Regression Process (QRProcess) by Chernozhukov et al. (2021). Coefficients, standard errors, and significance levels are provided for each quantile.

	(RQR - Borgen, et al. 2021)				(QRProcess - Chernozhukov, et al. 2021)			
	LnDEATHS		**LnINFECTIONS**		**LnDEATHS**		**LnINFECTIONS**	
Q1	**(5)**		**(6)**		**(7)**		**(8)**	
LnINFECTIONS					0.867***	(0.00669)		
LnSTRINGENCY	–	–	0.717***	(0.0668)	-1.067***	(0.0356)	1.119***	(0.0899)
Constant	–	–	1.531***	(0.187)	-0.206***	(0.0138)	-2.272***	(0.231)
Q2								
LnINFECTIONS					0.843***	(0.00348)		
LnSTRINGENCY	0.740***	(0.0552)	1.921***	(0.0518)	-0.845***	(0.0175)	1.997***	(0.0703)
Constant	2.496***	(0.198)	6.459***	(0.208)	0.100***	(0.0137)	-0.0997	(0.244)
Q3								
LnINFECTIONS					0.825***	(0.00354)		
LnSTRINGENCY	-2.978***	(0.0713)	-2.628***	(0.0658)	-0.670***	(0.0167)	-2.031***	(0.171)
Constant	8.391***	(0.0595)	13.20***	(0.0522)	0.0845*	(0.0346)	20.40***	(0.609)
Q4								
LnINFECTIONS					0.817***	(0.00295)		
LnSTRINGENCY	-2.493***	(0.0701)	-2.308***	(0.0685)	-0.567***	(0.0127)	-1.830***	(0.0987)
Constant	9.095***	(0.0527)	13.82***	(0.0476)	0.0750*	(0.0322)	20.58***	(0.318)
Q5								
LnINFECTIONS					0.814***	(0.00329)		
LnSTRINGENCY	-2.049***	(0.0772)	-2.000***	(0.0714)	-0.489***	(0.0129)	-1.508***	(0.0755)
Constant	9.771***	(0.0564)	14.46***	(0.0472)	0.0675*	(0.0298)	20.06***	(0.243)
Q6								
LnINFECTIONS					0.805***	(0.00332)		
LnSTRINGENCY	-1.714***	(0.0667)	-1.686***	(0.0646)	-0.397***	(0.0126)	-1.279***	(0.0571)
Constant	10.54***	(0.0435)	15.04***	(0.0403)	0.0592	(0.0337)	19.73***	(0.187)
Q7								
LnINFECTIONS					0.797***	(0.00345)		
LnSTRINGENCY	-1.491***	(0.0608)	-1.380***	(0.0562)	-0.326***	(0.0123)	-1.065***	(0.0453)
Constant	11.03***	(0.0362)	15.53***	(0.0330)	0.0774**	(0.0291)	19.45***	(0.152)
Q8								
LnINFECTIONS					0.774***	(0.00331)		
LnSTRINGENCY	-1.279***	(0.0566)	-1.206***	(0.0506)	-0.273***	(0.0130)	-0.988***	(0.0405)
Constant	11.47***	(0.0321)	15.93***	(0.0287)	0.370***	(0.0302)	19.55***	(0.138)
Q9								
LnINFECTIONS					0.766***	(0.00293)		
LnSTRINGENCY	-1.159***	(0.0547)	-1.164***	(0.0484)	-0.217***	(0.0146)	-0.970***	(0.0362)
Constant	11.94***	(0.0301)	16.35***	(0.0267)	0.484***	(0.0380)	19.85***	(0.127)
Q10								
LnINFECTIONS					0.752***	(0.00307)		
LnSTRINGENCY	-0.957***	(0.0567)	-0.966***	(0.0488)	-0.176***	(0.0162)	-0.916***	(0.0391)
Constant	12.71***	(0.0328)	17.03***	(0.0290)	0.831***	(0.0791)	20.38***	(0.138)
N	5115		5115		5148		5148	
*Standard errors in parentheses — * p< 0.05, ** p<0.01, *** p<0.001*								

Table A16: Impact of **Stringency Measures** on COVID-19 Incidence: Quantile Regression Results

Notes: This table presents the impact of Stringency Measures on COVID-19 incidence, assessed using LnDEATHS and LnINFECTIONS as dependent variables. The table includes results from RQR and QRProcess methods, displaying coefficients, standard errors, and significance levels across different quantiles.

	(RQR - Borgen, et al. 2021)				(QRProcess - Chernozhukov, et al. 2021)			
Q1	**LnDEATHS (9)**		**LnINFECTIONS (10)**		**LnDEATHS (11)**		**LnINFECTIONS (12)**	
LnINFECTIONS					0.986***	(0.0117)		
LnCONTAINMENT	–	–	1.072***	(0.0645)	-1.471***	(0.0517)	1.434***	(0.0856)
Constant	–	–	1.921***	(0.182)	0.148***	(0.00894)	-2.558***	(0.208)
Q2								
LnINFECTIONS					0.928***	(0.00496)		
LnCONTAINMENT	0.918***	(0.0555)	2.124***	(0.0472)	-1.069***	(0.0221)	2.501***	(0.0662)
Constant	2.932***	(0.200)	6.989***	(0.197)	0.114***	(0.0330)	-1.356***	(0.176)
Q3								
LnINFECTIONS					0.905***	(0.00484)		
LnCONTAINMENT	-2.776***	(0.242)	-2.785***	(0.299)	-0.900***	(0.0209)	3.087***	(0.0511)
Constant	8.232***	(0.0992)	13.21***	(0.107)	0.0995***	(0.0291)	-0.209	(0.185)
Q4								
LnINFECTIONS					0.881***	(0.00408)		
LnCONTAINMENT	-3.539***	(0.182)	-3.485***	(0.178)	-0.747***	(0.0165)	3.364***	(0.0450)
Constant	9.479***	(0.0508)	14.08***	(0.0427)	0.0866***	(0.0258)	-0.236	(0.177)
Q5								
LnINFECTIONS					0.871***	(0.00338)		
LnCONTAINMENT	-3.167***	(0.195)	-3.427***	(0.181)	-0.657***	(0.0132)	2.999***	(0.352)
Constant	10.16***	(0.0438)	14.69***	(0.0377)	0.0786**	(0.0242)	2.138	(1.474)
Q6								
LnINFECTIONS					0.858***	(0.00401)		
LnCONTAINMENT	-2.780***	(0.202)	-3.104***	(0.195)	-0.568***	(0.0148)	-0.577*	(0.227)
Constant	10.66***	(0.0387)	15.18***	(0.0353)	0.0711**	(0.0254)	17.59***	(0.901)
Q7								
LnINFECTIONS					0.837***	(0.00442)		
LnCONTAINMENT	-2.665***	(0.204)	-2.793***	(0.201)	-0.514***	(0.0170)	-1.005***	(0.152)
Constant	11.16***	(0.0344)	15.61***	(0.0326)	0.315***	(0.0292)	19.72***	(0.593)
Q8								
LnINFECTIONS					0.818***	(0.00482)		
LnCONTAINMENT	-2.493***	(0.208)	-2.502***	(0.197)	-0.426***	(0.0178)	-1.144***	(0.115)
Constant	11.60***	(0.0320)	16.00***	(0.0300)	0.373***	(0.0344)	20.60***	(0.447)
Q9								
LnINFECTIONS					0.790***	(0.00523)		
LnCONTAINMENT	-2.126***	(0.208)	-2.256***	(0.187)	-0.324***	(0.0289)	-1.160***	(0.0893)
Constant	12.05***	(0.0320)	16.41***	(0.0284)	0.594***	(0.0498)	21.03***	(0.346)
Q10								
LnINFECTIONS					0.757***	(0.00427)		
LnCONTAINMENT	-1.737***	(0.213)	-1.825***	(0.188)	-0.272***	(0.0390)	-1.334***	(0.0829)
Constant	12.84***	(0.0353)	17.14***	(0.0320)	1.220***	(0.186)	22.47***	(0.321)
N	5115		5115		5148		5148	
*Standard errors in parentheses — * p< 0.05, ** p<0.01, *** p<0.001*								

Table A17: Impact of **Containment Measures** on COVID-19 Incidence: Quantile Regression Results

Notes: This table details the impact of Containment Measures on COVID-19 incidence, with LnDEATHS and LnINFECTIONS as outcomes. The analysis uses RQR and QRProcess methodologies, showing the coefficients, standard errors, and significance levels for various quantiles.

	(RQR - Borgen, et al. 2021)				(QRProcess - Chernozhukov, et al. 2021)			
Q1	**LnDEATHS (13)**		**LnINFECTIONS (14)**		**LnDEATHS (15)**		**LnINFECTIONS (16)**	
LnINFECTIONS					1.064***	(0.0207)		
LnECONOMIC	–	–	0.865***	(0.0599)	-0.129***	(0.0180)	0.967***	(0.0702)
Constant	–	–	2.312***	(0.172)	-6.240***	(0.357)	0.00332	(0.127)
Q2								
LnINFECTIONS					0.919***	(0.00967)		
LnECONOMIC	0.693***	(0.0624)	1.900***	(0.0552)	-0.244***	(0.0113)	2.183***	(0.0554)
Constant	2.220***	(0.161)	5.830***	(0.157)	-3.176***	(0.165)	-0.118	(0.141)
Q3								
LnINFECTIONS					0.885***	(0.0111)		
LnECONOMIC	-1.176***	(0.0339)	-1.040***	(0.0299)	-0.183***	(0.0124)	-0.801***	(0.0437)
Constant	8.014***	(0.0993)	12.96***	(0.0886)	-2.520***	(0.193)	15.53***	(0.149)
Q4								
LnINFECTIONS					0.844***	(0.0102)		
LnECONOMIC	-0.945***	(0.0243)	-0.839***	(0.0205)	-0.195***	(0.0129)	-0.680***	(0.0228)
Constant	9.272***	(0.0615)	13.96***	(0.0502)	-1.673***	(0.182)	16.22***	(0.0721)
Q5								
LnINFECTIONS					0.789***	(0.0127)		
LnECONOMIC	-0.793***	(0.0221)	-0.735***	(0.0195)	-0.219***	(0.0144)	-0.589***	(0.0203)
Constant	10.05***	(0.0465)	14.59***	(0.0409)	-0.600**	(0.229)	16.57***	(0.0662)
Q6								
LnINFECTIONS					0.760***	(0.00193)		
LnECONOMIC	-0.683***	(0.0219)	-0.637***	(0.0199)	-0.229***	(0.00725)	-0.534***	(0.0187)
Constant	10.62***	(0.0385)	15.11***	(0.0356)	0.0469**	(0.0149)	16.89***	(0.0595)
Q7								
LnINFECTIONS					0.766***	(0.00224)		
LnECONOMIC	-0.596***	(0.0220)	-0.551***	(0.0203)	-0.206***	(0.00761)	-0.465***	(0.0175)
Constant	11.06***	(0.0345)	15.55***	(0.0320)	0.0440*	(0.0193)	17.09***	(0.0563)
Q8								
LnINFECTIONS					0.767***	(0.00203)		
LnECONOMIC	-0.524***	(0.0221)	-0.518***	(0.0223)	-0.165***	(0.00753)	-0.412***	(0.0160)
Constant	11.51***	(0.0320)	16.01***	(0.0293)	0.0398***	(0.0115)	17.35***	(0.0495)
Q9								
LnINFECTIONS					0.772***	(0.00224)		
LnECONOMIC	-0.494***	(0.0253)	-0.497***	(0.0250)	-0.140***	(0.00864)	-0.434***	(0.0170)
Constant	12.05***	(0.0312)	16.43***	(0.0274)	0.0369***	(0.0107)	17.88***	(0.0556)
Q10								
LnINFECTIONS					0.759***	(0.00167)		
LnECONOMIC	-0.338***	(0.0218)	-0.396***	(0.0248)	-0.0663***	(0.00553)	-0.349***	(0.0150)
Constant	12.73***	(0.0318)	17.10***	(0.0289)	0.310***	(0.0202)	18.22***	(0.0490)
N	5115		5115		5148		5148	
Standard errors in parentheses — = p< 0.05, ** p<0.01, *** p<0.001*								

Table A18: The Impact of **Economic Support Measures** on COVID-19 Incidence: Quantile Regression Results

Notes: This table provides the quantile regression results for the impact of Economic Support Measures on COVID-19 incidence, using LnDEATHS and LnINFECTIONS as the response variables. The table includes coefficients, standard errors, and significance levels, comparing results from the RQR and QRProcess methods across different quantiles.

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