

# COVID-19 and Voter Turnout in Europe and in Korea

JOE Dong-Hee Research Fellow, Head of Europe Team, Advanced Economies Department (dhjoe@kiep.go.kr)

## I. COVID-19 and Voter Turnout in Europe

Even while we are suffering from the pandemic, cyclical events arrive mercilessly as scheduled. While some of them are held virtually (i.e., online), and some of us are already used to virtual events, some cannot be completely virtualized, at least as of now. Among the latter kind are national elections. A major risk in holding an election during a pandemic is the possible increase of contagion due to the gathering of people in polling stations and campaign events. Empirical evidences of this concern are already being reported, particularly in Europe where many nations were badly hit by COVID-19 from early on. Cassan and Sangnier (2021), for instance, estimate that the municipal elections in France held in mid-March 2020 accounted for about 15% of all hospitalizations by the end of the same month. Similarly, Mello

and Moscelli (2021) report that each percentage-point of turnout in the constitutional referendum of Italy in September 2020 meant about 1% increase of new COVID-19 cases. From the early stages of the pandemic, some governments have reacted to this risk by postponing elections, while some others have gone ahead as scheduled.<sup>1</sup>

The opposite direction of causality, that is, from contagion to voter turnout, is also a serious, but much less recognized, risk. Voters may refrain from voting due to health concerns. Leromain and Vannoorenberghe (2021) and Noury et al. (2021), for instance, analyze the aforementioned French elections and find empirical support for this concern, that is, the proximity to the "COVID-19 clusters" (where the situation was particularly bad) suppressed turnout. Perhaps more importantly, they find that the magnitude of this negative impact on

<sup>1</sup> As of April 15, 2020, for instance, at least 47 countries, including some well-developed democracies, are reported to have postponed elections. CNN (April 15, 2020), "South

Korea is holding an election during the coronavirus crisis. Other countries are postponing theirs. Either way, democracy may suffer."

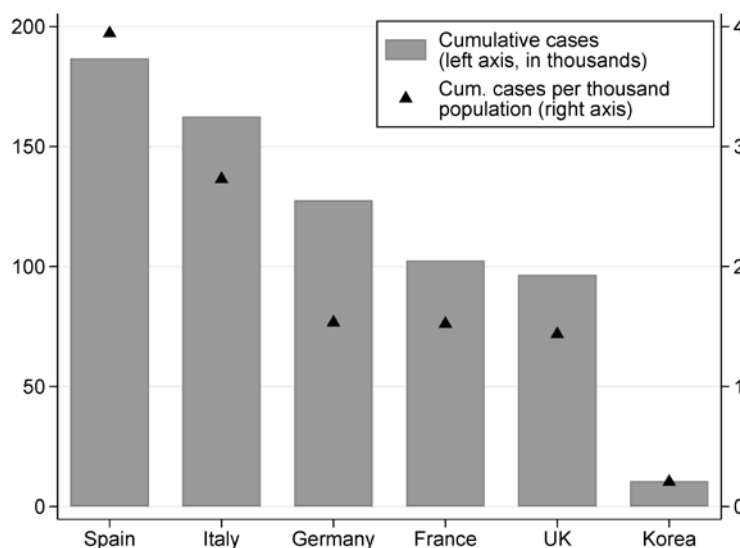
turnout was not uniform within the country. In particular, it was larger in areas with higher share of elderly, who are known to face worse health risks of infection. It was also larger in areas that supported right-wing candidates in the previous presidential election (Leromain and Vannoorenberghe 2021), which the authors relate to the voters' risk perception. These findings suggest that the prevalence of COVID-19 suppresses turnout, and it does so unequally within a country depending on the characteristics of the electorate.

## II. Impact of COVID-19 on Voter Turnout in Korea

In a similar vein, I analyzed in a recent article

(Joe 2022) the impact of the prevalence of COVID-19 on turnout in the 21st National Assembly election, the country's unicameral legislature, held on April 15, 2020. The situation in Korea was much better controlled than in Europe, as Figure 1 shows. While some European countries postponed elections due to the concern on contagion (e.g., the second round of the aforementioned French municipal elections), which may have prevented further worsening of the situation (Mello and Moscelli 2021), there was virtually no debate on this option in Korea because of the low prevalence. Instead, the government focused on reducing the risk of infection at polling stations, as well as on giving access to those who were under quarantine at the time of election.

Figure 1. Cumulative COVID-19 Cases by Country as of April 15, 2020



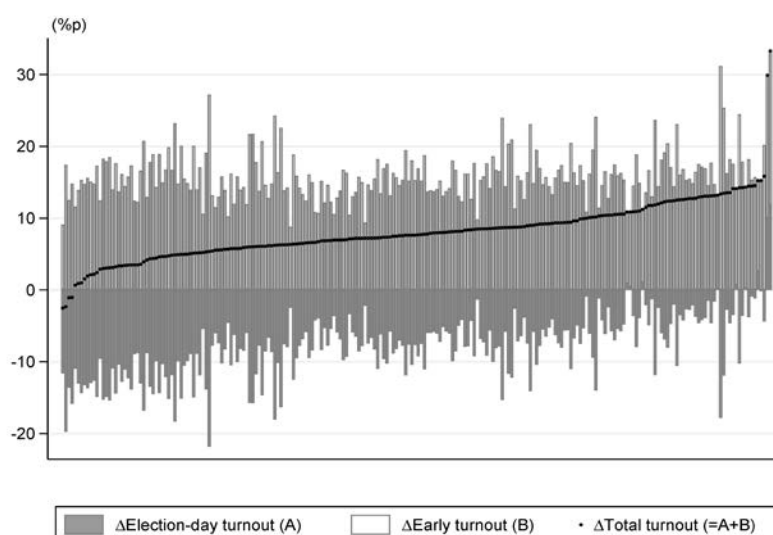
Source: Own calculations using the data from the WHO and the World Bank.

A surprising feature of the Korean case is that turnout *increased* in the 21st National Assembly election. However, decomposing the first-difference in turnout (i.e., change from the previous, 20th National Assembly election) into early turnout and election-day turnout reveals that the increase was driven solely by early turnout, as shown in Figure 2, which was already in an upward trend since its introduction in national elections in 2014, from 20 percent

of total turnout in the 2014 regional elections to more than 33 percent of total turnout in the 2018 presidential election and regional elections.

Early ballots can be cast in any early-voting station in the country, which makes it difficult to relate early turnout and the prevalence of COVID-19. Therefore, I focus on election-day turnout, controlling for early turnout.

Figure 2. Sample Distribution of the First-difference in Turnout



Source: See Figure 2 in Joe (2022).

Table 1 summarizes the main findings in Joe (2022), where  $\Delta$  denotes first-difference (i.e., difference from the previous election) in turnout, *Prevalence* is the number of cumulative cases per one hundred thousand residents and *GEQ65* is the percentage share of voters no younger than 65. Columns (1) and (2) clearly show negative impacts of the prevalence of

COVID-19 on turnout, and its magnitude is amplified by the share of old-age voters. Columns (3) and (4) show that these findings are not mere reflections of an increase in early turnout. The negative and unequal impact of COVID-19 on turnout found in elections in Europe discussed above was also present in the 2020 legislative elections in Korea.

Table 1. Prevalence of COVID-19 on the First-difference in Turnout

	$\Delta$ (Election-day turnout)		$\Delta$ (Early turnout)	
	(1)	(2)	(3)	(4)
Prevalence, Apr 14	-0.225*** (0.027)	-0.186*** (0.023)		
Prevalence, Apr 14 $\times$ GEQ65		-0.001* (0.000)		
GEQ65		-0.143* (0.056)		0.216*** (0.029)
$\Delta$ (Early turnout)	-0.721*** (0.149)	-0.466* (0.196)		
Prevalence, Apr 9	0.236*** (0.025)	0.212*** (0.025)	-0.002 (0.002)	-0.006 (0.003)
Prevalence, Apr 9 $\times$ GEQ65				0.000 (0.000)
Constant	3.510 (2.131)	2.927 (2.277)	15.910*** (0.541)	10.659*** (0.799)
Observations	228	228	228	228
$R^2$	0.328	0.389	0.002	0.360

Note: The unit of observation is the second highest local administrative division (*Sigungu* in Korean). Standard errors clustered at the highest division (*Gwangyeoksido* in Korean) in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Source: See Tables 3 and 4 in Joe (2022).

### III. Discussion

The empirical studies discussed above show that the prevalence of COVID-19 suppresses voter turnout, and this negative impact is amplified by certain characteristics of the electorate (e.g., age distribution). Since the prevalence of COVID-19 and the distribution of such characteristics differ within a country, these findings warn of a distortion of the representation of voters in ballots cast. That is, voting districts with higher prevalence are likely to have lower turnout, and hence smaller share in vote count. Also, holding prevalence fixed, districts with higher share of old-age voters, for instance, are likely to have lower turnout, and hence smaller share in vote count. This implies that

election administration during a pandemic needs to pay more attention to those districts with higher prevalence of infection or more share of voters who are known to face worse health risks of infection, within the boundary of the legal capacity, of course. Naïvely adhering to an *equal* allocation of resources across districts risks resulting in an *unequal* representation of the various segments of the electorate in ballots cast. **KIEP**

### References

Cassan, Guilhem and Marc Sangnier. 2021. "The impact of 2020 French municipal elections on the spread of COVID-19." DeFiPP Working Papers 2102-02. Development Finance and Public Policies, University of Namur.

Joe, Dong-Hee. 2022. "Turnout in the time of corona: Evidence from the legislative elections in Korea." *Applied Economics Letters*. <https://doi.org/10.1080/13504851.2022.2038773>.

Leromain, Elsa and Gonzague Vannoorenberghe. 2021. "Voting under Threat: Evidence from the 2020 French local elections." LIDAM Discussion Papers IRES 2021/16. Institut de Recherches Economiques et Sociales (IRES), Université catholique de Louvain.

Mello, Marco and Giuseppe Moscelli. 2021.

"Voting, Contagion and the Trade-Off between Public Health and Political Rights: Quasi-Experimental Evidence from the Italian 2020 Polls." IZA Discussion Papers 14658. Institute of Labor Economics (IZA)

Noury, Abdul, Abel François, Olivier Gergaud and Alexandre Garel. 2021. "How does COVID-19 affect electoral participation? Evidence from the French municipal elections." *PLOS ONE*, 16(2). <https://doi.org/10.1371/journal.pone.0247026>.