

Estonian response to COVID-19 pandemic: learning, cooperation, and the advantages of being a small country

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Compared to many other countries in Europe, Estonia managed to curtail the spread of the new coronavirus rather effectively. This paper offers an overview of the measures undertaken to tackle the COVID-19 pandemic in March-May 2020 and explain why Estonia managed to successfully contain the epidemic. The paper argues that the management of the crisis was facilitated by political factors, quick policy learning, cooperation with the scientific community, and the existing ICT and e-government infrastructure.

Keywords: COVID-19; Estonia; policy learning; crisis management.

Resposta da Estônia à pandemia da COVID-19: aprendizagem, cooperação e as vantagens de ser um país pequeno

Em comparação com outros países europeus, a Estônia conseguiu reduzir a disseminação do coronavírus de maneira bastante eficaz. Este artigo busca dar uma visão geral das medidas tomadas para enfrentar a crise da COVID-19 entre os meses de março e maio de 2020 e explicar por que a Estônia conseguiu conter a epidemia com sucesso. O artigo argumenta que a gestão da crise foi facilitada por fatores políticos, pela rapidez na aprendizagem de políticas públicas, pela cooperação com a comunidade científica e pela infraestrutura existente de TIC e governo eletrônico.

Palavras-chave: COVID-19; Estônia; aprendizagem de políticas públicas; gestão de crises.

Respuesta de Estonia a la pandemia de COVID-19: aprendizaje, cooperación y las ventajas de ser un país pequeño

Comparada con otros países de Europa, Estonia ha logrado restringir la propagación del coronavirus relativamente bien. Este artículo se propone brindar una visión general de las medidas tomadas entre marzo y mayo del 2020 para enfrentar la crisis de la COVID-19 y explicar por qué Estonia logró contener la epidemia. El artículo argumenta que el manejo de la crisis fue facilitado por factores políticos, por el rápido aprendizaje sobre políticas públicas, por la cooperación con la comunidad científica, y por la infraestructura de tecnologías de comunicación e información y gobierno digital.

Palabras clave: COVID-19; Estonia; aprendizaje sobre políticas públicas; manejo de crisis.

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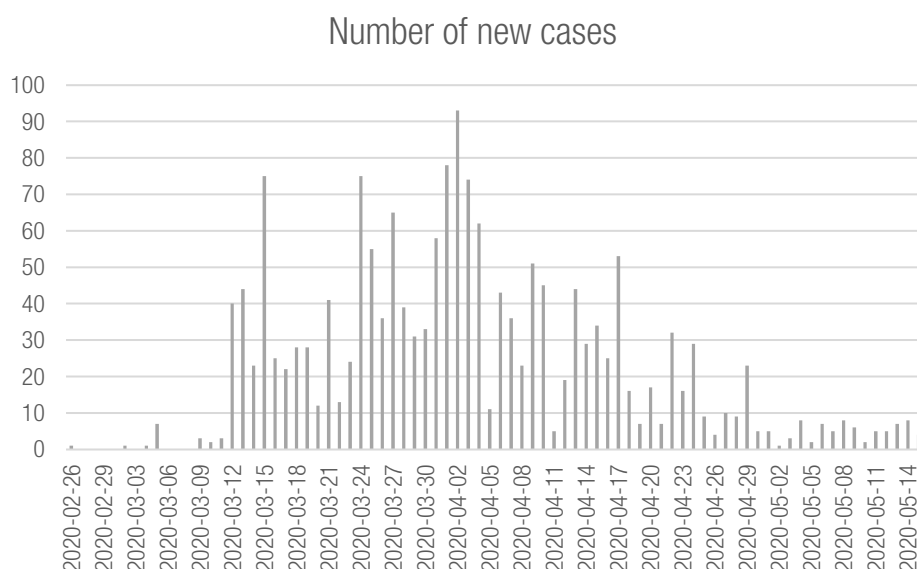
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1. INTRODUCTION

The first case of the SARS-CoV-2 virus in Estonia was registered on 27 February 2020. A person arriving from Iran felt sick and called an ambulance, suspecting to have contracted the virus. The majority of the imported cases arrived to Estonia from Italy and Austria, where many families had been for ski holidays at the end of February (Sildam, 2020). The most dramatic episode of the spread of the virus took place on Saaremaa – Estonia’s biggest island – where the local volleyball team played a game against a team from Milan on 4-5 March. This contributed to a considerable surge in the number of registered cases in Estonia by mid-March (see Figure 1). This, in turn, led to the declaration of the state of emergency by the government on 12 March and the adoption of a sequence of restrictive measures.

FIGURE 1 THE NUMBER OF DAILY NEW CORONA VIRUS CASES IN ESTONIA (15 FEB-15 MAY 2020)



Source: Worldometer (2020).

Compared to many other countries in Europe, Estonia managed to contain the spread of the virus rather effectively (Sildam, 2020). As of 15 May, the total number of positively tested cases was 1766 and COVID-19 death toll in Estonia was 63 (i.e. 47 deaths per million inhabitants).¹ Among the 27 European Union member states, Estonia had the 11th lowest number of deaths per million. In terms of the stringency index of policy responses (calculated by the Balavatnik School of Government at the University of Oxford)² Estonia scored 80-90% (with 100 being the strictest response).

¹ Retrieved from <https://www.worldometers.info/coronavirus/country/estonia/>

² Retrieved from <https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker>

The goals of this paper are to give an overview of the measures undertaken to tackle the corona-crisis and to explain why Estonia managed to contain the epidemic successfully. Since the crisis is two-pronged, affecting both public health and the economy, the paper will focus on two sets of measures: social distancing requirements and fiscal instruments. This paper focuses on the first two months of the corona crisis (covering the period of early March to mid-May in 2020). As sources of data, policy documents, verbatim records of the legislature, government press briefings, and media articles were used.

The paper is structured as follows. Section 2 gives an overview of the main measures adopted, section 3 discusses the explanatory factors that can help to account for Estonia's success in handling the virus, and section 4 concludes.

2. DESCRIPTION OF THE RESPONSES

2.1 Measures to limit the spread of the virus

In containing the virus, the Estonian government followed a five-fold approach: 1) Mandating the closure of a series of venues to limit person-to-person spread; 2) Closing the border; 3) Public information campaigns urging people to stay at home and work at home if possible; 4) Extensive testing; 5) Quarantining positive cases and contact-tracing.

BOX 1 THE CHRONOLOGY OF KEY EVENTS AND DECISIONS RELATED TO THE CORONA-CRISIS IN ESTONIA

Date	Event / decision
27 February	The first registered corona virus case in Estonia. Government sets up a cross-cutting working group to contain the spread of the virus.
2 March	Thermocameras are set up at the airport and ferry harbours.
12 March	27 registered cases. Community spread of the virus is identified. The Government declares the state of emergency (until May 1 st).
13 March	The closing of all universities, schools, youth centres, night clubs, theatres, cinemas, concert halls. Visitation of nursing homes, hospitals and prisons is forbidden. The Health Board requires hospitals to start setting up special COVID-departments.
14 March	The closing of sports halls and clubs, spas, swimming pools, water centres. Travel between the mainland and islands is restricted.
15 March	The setting up of border control for entries from the Schengen area.
16 March	All persons who enter Estonia have to self-quarantine for 2 weeks.
17 March	Foreigners are not allowed to enter Estonia anymore.

Continue

Date	Event / decision
24 March	Publication of the report of the scientific advisory committee about the projections of infections, hospitalizations, ICU units needed and deaths. 2+2 rule: only 2 people are allowed to gather in public (and the requirement to keep the distance of 2 meters). The closing of malls (apart from essential businesses inside the malls).
25 March	The first registered COVID-19 death.
15 April	Supplementary budget to cover crisis-related expenditures approved by the parliament.
23 April	Publication of the strategy for easing the measures. The state of emergency extended until May 17 th .
17 May	The state of emergency ends.

Source: Elaborated by the author.

The chronological sequence of the decisions pertaining to different restrictions is outlined in Box 1. As can be seen from Box 1, after the Government declared the state of emergency on March 12, a series of increasingly escalating restrictions were imposed on the population (Eesti Rahvusringhääling [ERR], 2020). The decisions were adopted as Government decrees and Prime Minister's orders – but the Government consulted with the Health Board (the main government agency responsible for containing epidemics) and the Scientific Advisory Board, consisting of leading scientists from various disciplines. In addition, the Legal Chancellor – representing the independent institution of constitutional review – took part in the decision-making process, ensuring that unconstitutional infringements of citizens' rights or excessive use of government power would not take place.

In terms of testing, initially, after community-spread was identified on March 12, the Health Board wanted to stop widespread testing and only reserve it for persons who needed hospitalization due to COVID-19 symptoms. The officials of the Health Board argued that since protective gear was scarce, the approach of going to people's homes to test them (which had been the procedure employed so far) would be too resource-consuming (Aavik, Kuulpak & Seppel, 2020; Parksepp, 2020). The scientific community, however, pushed for wide-spread testing. Scientists from various fields pointed to the experiences of countries that had so far been relatively successful in containing the virus (especially South Korea) and emphasized that in order to make better-founded policy decisions, data about the spread of the infection was necessary. They suggested drive-in testing – already utilized by the hospital in Saaremaa – which necessitated considerably lower use of the protective gear than home-testing. The government valued the scientific community's advice and took it seriously. Together with cooperation from the private sector (including the use of private testing labs), the government procured 200,000 tests and opened seven drive-in testing points across the country on 20 March. In addition to testing people who had symptoms, random samples of health care workers and police officers were tested. Furthermore, the government funded a study that would test random samples of 2,000 people per week for 8 weeks (commencing at the end of April) in order to get a better sense of the spread of the virus (Whyte, 2020c). By 15 May 2020, altogether 68 000 tests were completed, of which 2.6% were positive (Seppel & Kuris, 2020).

Those individuals who were diagnosed with corona virus (and those cohabiting with them) were mandated to quarantine themselves. This was controlled by the police, and persons who violated the requirement were fined. In addition, the officials of the Health Board interviewed persons who tested positive in order to identify people they had recently been in contact with so that those individuals could be informed and tested. The population, overall, perceived the virus to be a serious threat (Baltic News Service [BNS], 2020) and therefore supported the measures adopted by the government to contain the spread (e.g. Whyte, 2020a).

As indicated in Figure 1, the measures adopted by the Estonian government succeeded in reducing the number of daily new cases considerably – even more extensively than foreseen by the projections of the scientific advisory board of the government (Anvelt, 2020).

Although the overall response of the Estonian government to the virus has been timely and prompt, a series of criticisms were voiced in the media about how the Health Board had dealt with the threat of the virus initially – before the government declared the state of emergency. In particular, the Board was criticised for: 1) downplaying the risks posed by the virus in its communication with the public throughout January and February; 2) not restricting travel to risk-regions at the end of February (when many families were going on ski holidays); 3) allowing the volleyball game with the team from Milan to take place in Saaremaa in early March despite the designation of Northern-Italy as a major epicentre of the virus (e.g. Aavik et al., 2020; Parksepp, 2020).

Once it became clear that the restrictive measures had succeeded in flattening the curve, the government emergency committee unveiled the plan of exit strategy on 23 April, which outlined how the restrictive measures would be eased. The overall principles of the exit strategy were: 1) The easing of measures would be gradual; 2) If infection rate began to increase too much, the restrictive measures would be re-instated (see, e.g. Saar, 2020; Whyte, 2020b). By mid-May, certain sporting and hobby activities were allowed to take place outdoors, and the following institutions were permitted to re-open: shopping malls, schools and universities, libraries, and museums. In all situations, however, persons are expected to keep at least two-meters distance from others.

2.2 Fiscal policy measures

Although the focus of the paper is on the measures aimed at social distancing, this subsection gives a brief overview of the main fiscal measures adopted in response to the crisis. Since the fiscal measures helped to ease the economic pain of individuals and businesses affected by the lockdown and social distancing requirements, they are likely to have played a role in getting the population to comply with the restrictions without major protests.

A supplementary budget that foresaw additional expenditures to address the crisis was passed by the parliament on 15 April – with 55 votes for and 10 against. For businesses, the government offered the opportunity to get loans and loan guarantees (through Kredex),³ and compensations for sectors starkly hit by the crisis (e.g. culture, tourism, and sport). The supplementary budget also sought to support businesses deemed strategically important to the state (Vahtla, 2020). Alongside the existing

³ For more details, see: <https://www.kredex.ee/en/koroona>

unemployment insurance scheme, the government introduced a new labour market support measure (through the Unemployment Insurance Fund).⁴ The goal of this measure was to pay temporary subsidies to employees of those employers who had been significantly affected by the crisis. By paying 70% of the salaries for two months, the government sought to avoid layoffs or bankruptcies and to allow viable firms to “go back to normal” as quickly as possible after the crisis (Turovski, 2020). In addition, the Health Insurance Fund started to pay for the first three sick leave days (which had been uncompensated in the past). Additional funds were provided to the health care sector (hospitals, ambulances, GPs) to help cover the costs of overtime, reorganization of work, additional workforce and for procuring protective equipment, ventilators, coronavirus test kits, and pharmaceuticals.

There were, however, also some more questionable measures through which the coalition parties aimed to fulfil electoral promises. For example, the reduction of fuel excise tax, suspension of public contributions to private pension funds, funding a new oil shale processing plant, and other political “pet projects” were pushed through via the supplementary budget in the shadow of the emergency situation (Velmet, 2020).

The supplementary budget foresaw an increase of expenditures of 693 million EUR – amounting to a 5.6% increase compared to the original budget for the fiscal year of 2020 (Explanatory note of the supplementary budget). The key source of funding for these additional commitments (in the face of declining tax revenues) are loans taken by the government. In March, it issued bonds for 200 million EUR (with a negative average yield of -0.3%)⁵ and in May, for further 375 million EUR (with a negative average yield of -0.2%). The projected effect of the supplementary budget on the nominal budget deficit for 2020 was estimated at 5.6% of GDP (Explanatory note of the supplementary budget 2020).

3. ANALYSIS AND DISCUSSION

In order to understand the responses of the Estonian government to COVID-19 pandemic, the following explanatory factors can be pointed out: 1) Political willingness to act fast and the centralization of decision-making; 2) Fast policy learning; 3) Cooperation with scientists; 4) Advanced ICT infrastructure and e-government solutions.

3.1 Political will to adopt swift measures and centralization of decision-making

In the Estonian media, there has been some criticism of the Estonian government for acting too slowly and especially of the Health Board of not taking the coronavirus seriously enough initially (e.g. Aavik et al., 2020; Parksepp, 2020). However, the number of cases, hospitalizations and deaths do indicate that overall, the government did respond sufficiently swiftly. Once community spread was identified, the government reacted promptly by declaring the state of emergency on 12 March. Also, the government swiftly adopted additional restrictive measures on 24 March when the projections indicated that the number of COVID-19 cases may exceed the capacity of the Estonian hospitals and ICU units (Anvelt, 2020).

⁴ For more details, see: <https://www.tootukassa.ee/eng/content/subsidies-and-benefits/temporary-subsidy-program>

⁵ See: https://www.rahandusministeerium.ee/sites/default/files/Riigikassa/etb_24032021_final_terms.pdf

In explaining the government's willingness to declare the state of emergency two weeks before the first COVID-19-death even occurred and to quickly adopt restrictive measures, ideological factors should be taken into account (Cusack, 2001; Givens & Luedtke, 2005; Pamp, 2008). The current coalition government of Estonia consists of two right-leaning conservative parties (one traditional conservative, the other populist) and a centre-left party. Although ideologically speaking, such a party configuration is rather unusual, it provided a fertile ground for a more interventionist approach, both socially and economically. The right-leaning parties were willing to impose social constraints (especially when it came to closing the borders and containing immigration) whereas the left-leaning party was highly concerned with the viability of the health care sector and was also willing to go ahead with extensive fiscal measures in order to mitigate the economic effects of the lockdown.

Overall, the decision-making style of the crisis government in Estonia can be characterized as highly centralized. After the declaration of the state of emergency, extensive decision-making powers were conferred to a seven-member emergency committee, which allowed the government to act fast and decisively (e.g. Nõmm, 2020). This is not surprising given that crisis decision-making tends to become centralized (Raudla, Douglas, Randma-Liiv & Savi, 2015). Furthermore, Estonia had experience with adopting a highly centralized mode of decision making during the previous crises (e.g. Raudla, 2013), so it opted for a familiar path. Some criticisms have, however, been levelled against the decision-making structure as being excessively centralized and not including the opposition parties sufficiently in the discussions (Nõmm, 2020).

At the same time, there have been some elements of decentralization as well. For example, the hospitals have been allowed to decide for themselves how best to go back to offering regular health care services and what kinds of cautionary measures should be taken (Sildam, 2020). Local governments with a higher number of cases have adopted stricter measures than the central government in order to avoid the gathering of people (e.g. larger cities closed playgrounds after these became gathering places).

3.2 Policy learning

Since the virus hit Estonia somewhat later than many other countries in Asia and Europe, the Estonian government had the opportunity to learn from the experiences of others and emulate those that had been successful in containing it (especially South-Korea, Taiwan, Singapore, Germany, and Iceland). As a result, we can observe almost instant policy diffusion, with media, scientists and other "epistemic go-betweens" (see Douglas, Raudla & Hartley, 2015) acting as facilitators of offering potential solutions.

When we analyse the timeline of the policy measures adopted by the Estonian government, we can see that a number of measures imitated (sometimes only with a couple of days lag) actions that were adopted by other countries who were perceived to be effective in containing the virus. In particular, the rule of allowing the gathering of a maximum of two people together in public spaces was copied from Germany, where a similar measure had been adopted only two days prior (see, e.g. Posaner, 2020). The Estonian prime minister also imitated Chancellor Angela Merkel's direct communication to the public, which emphasized the contribution and responsibility of each individual for containing the pandemic. As discussed in section 3.3., in advocating the expansion of testing as a key measure in containing the virus, the scientific community was able to refer to the successful experiences of South Korea, Taiwan, and Iceland.

3.3 Cooperation with scientists

While there were informal communications between the scientific community and the emergency management committee from the onset of the emergency situation, the government involved the scientists formally – by appointing a scientific advisory committee – from 22 March onwards (Aavik et al., 2020; Koppel, 2020).

The advisory body has provided the government with models and projections about the developments in the number of registered cases, hospitalizations and deaths and offered policy advice (Anvelt, 2020; Koppel, 2020). The scientists advocated somewhat stricter measures (e.g. including the closure of malls) and argued strongly for the extension of testing (*including* random sample testing). The government took the advice of the scientists seriously and also used the projections and analyses produced by the scientific advisory body to communicate with the public and to explain the seriousness of the situation (e.g. Anvelt, 2020; Koppel, 2020).

For example, on 24 March, the report of the scientific advisory board was published. It predicted that if no further restrictive measures were adopted, more than 200 persons might need intensive care (while the number of available units was only 130); according to the worst-case scenario, the number of needed ICU units was predicted to be 960 (Parksepp, 2020). In light of that report, the government adopted additional measures – the closing of the malls and the so-called 2+2 rule (allowing max 2 people to gather publicly and requiring the distance of 2 meters to be held from other persons).

3.4 ICT infrastructure and e-government

The ICT infrastructure of Estonia and e-government solutions (including digital authentication and signature) facilitated social distancing while enabling public organizations to continue working without major disruptions (Alamäe, Kitt & Helm, 2020). The provision of many public services could continue owing to the digital authentication and signature possibilities, which allow most of the public services to be provided in a digital form, without a physical presence (Alamäe et al., 2020; Salter, 2020). There were already existing structures for e-schooling, e-courts, applying for social insurance benefits, e-prescriptions for medicines, etc (Salter, 2020). There were no major interruptions in internet services and – partly owing to the availability of e-services linked to citizens' identity cards (e.g. digital signature and authentication) – a considerable portion of people were able to work at home.

4. CONCLUDING REMARKS

Overall, Estonia has managed the corona-crisis relatively well, judging from the number of cases, hospitalizations and deaths. The management of the crisis was facilitated by political factors, quick policy learning, cooperation with the scientific community, and the existing ICT and e-government infrastructure.

Looking beyond those factors, we have to admit that Estonia got lucky as well. Being sufficiently far from the European epicentre – Italy – gave it more time to learn and prepare. For example, the hospitals had more time to procure protective gear and prepare separate COVID departments, in order to avoid intra-hospital contamination. The Estonian government and media were able to refer to the overflowing hospitals in Italy to justify restrictive measures and to convince the population to

follow social distancing measures (Anvelt, 2020). Also, it helped being small in terms of population (1.3 million), while having a low population density (31 per km² which is among the lowest in Europe). Compared to the large countries, the sheer volume of personal protection gear (for the health sector but also for other sectors that interact with the public) and tests Estonian organizations had to procure were a “drop in the bucket”. Thus, it was possible to supply all the organizations that needed protective gear and the tests in a timely manner.

Since the pandemic is still ongoing, it is far too early to say what the long-term effects (both in terms of public health or economy) of the measures taken in March and April in 2020 will be. A country that may look as a success case in the first phase of the crisis, may not necessarily remain so in the long term. Thus, in the future, more longitudinal studies about the Estonian experiences with the corona virus pandemic are needed. This paper relied on the analysis of political documents, verbatim records of the legislature, government’s press briefings and media articles as sources of data. Future research should certainly triangulate these data sources with expert interviews in order to provide a more in-depth understanding of the Estonian case and the explanatory factors behind the strategies and decisions. Future studies of the Estonian case could also employ integrated governance perspectives (e.g. Delaney, 2015; Koch, 2008) in order to investigate how the existing governance elements contributed to resolving the crisis and what further reforms could benefit the crisis-resolution structures and capacities.

REFERENCES

- Aavik, M., Kuulpak, K., & Seppel, A. (2020, March 28). Postimehe analüüs: kriisi juhtimise esimesed kaks nädalat. *Postimees*. Retrieved from https://leht.postimees.ee/6935505/postimehe-analuus-kriisi-juhtimise-esimesed-kaks-nadalat?_ga=2.123634891.1168864392.1582804790-2091353243.1573022201
- Alamäe, P., Kitt, R., & Helm, M. (2020, April). The virus-proof digital state. *Opinion piece*. Retrieved from <https://e-estonia.com/the-virus-proof-digital-state/?fbclid=IwAR1YhgBGtMra3gMHUfQY3nQfDlzouSoKmfYK5lnRGIVdVaiVVFJQapApZE>
- Anvelt, K. (2020, March 27). Kui koju ei jääda, ootab meid ees sarnane olukord Itaalia ja Hispaaniaga. *Eesti Päevaleht*. Retrieved from <https://epl.delfi.ee/uudised/kui-koju-ei-jaada-ootab-meid-ees-sarnane-olukord-itaalia-ja-hispaaniaga?id=89355205>
- Baltic News Service. (2020, April 14). Küsitlus: inimesed tajuvad koroonaviirust selge ohuna. *Postimees*. Retrieved from <https://www.postimees.ee/6948938/kusitlus-inimesed-tajuvad-koroonaviirust-selge-ohuna>
- Cusack, T. R. (2001). Partisanship in the setting and coordination of fiscal and monetary policies. *European Journal of Political Research*, 40(1), 93-115.
- Delaney, L. (2015). The challenges of an integrated governance process in healthcare. *Clinical Governance: An International Journal*, 20(2), 74-81.
- Douglas, J. W., Raudla, R., & Hartley, R. E. (2015). Shifting constellations of actors and their influence on policy diffusion: A study of the diffusion of drug courts. *Policy Studies Journal*, 43(4), 484-511.
- Eesti Rahvusringhääling. (2020, April 08). Government's coronavirus emergency situation orders in full. *ERR*. Retrieved from <https://news.err.ee/1074030/government-s-coronavirus-emergency-situation-orders-in-full>
- Givens, T., & Luedtke, A. (2005). European immigration policies in comparative perspective: Issue salience, partisanship and immigrant rights. *Comparative European Politics*, 3(1), 1-22.
- Koch, C. (2008). The superministry approach: integrated governance of science, technology and innovation with contracted autonomy. *Science and Public Policy*, 35(4), 253-264.
- Koppel, K. (2020, March 30). Koroonaviiruse tõkestamise nõukoda peab valitsuse senist strateegiat õigeks. *ERR*. Retrieved from <https://www.err.ee/1070971/koroonaviiruse-tokestamise-noukoda-peab-valitsuse-senist-strateegiat-oigeks>
- Nõmm, A. (2020, April 24). Ossinovski: Government's emergency committee has too much power. *ERR*. Retrieved from <https://news.err.ee/1081838/ossinovski-government-s-emergency-committee-has-too-much-power>
- Pamp, O. (2008). Partisan preferences and political institutions: Explaining fiscal retrenchment in the European Union. *European Political Economy Review*, 8, 4-39.
- Parksepp, A. (2020, March 27). Kaheldavad otsused ja segane kommunikatsioon. Terviseamet on koroonakriisis pidanud korduvalt oma sõnu sööma. *Eesti Päevaleht*. Retrieved from <https://epl.delfi.ee/uudised/kaheldavad-otsused-ja-segane-kommunikatsioon-terviseamet-on-koroonakriisis-pidanud-korduvalt-oma-sonu-sooma?id=89370961>
- Posaner, J. (2020, March 22). Germany's Merkel bans meetings of more than 2 people to slow coronavirus. *Politico*. Retrieved from <https://www.politico.com/news/2020/03/22/germany-merkel-bans-meetings-two-people-142283>
- Raudla, R. (2013). Fiscal retrenchment in Estonia during the financial crisis: The role of institutional factors. *Public Administration*, 91(1), 32-50.
- Raudla, R., Douglas, J. W., Randma-Liiv, T., & Savi, R. (2015). The impact of fiscal crisis on decision-making processes in European governments: Dynamics of a centralization cascade. *Public Administration Review*, 75(6), 842-852.
- Saar, M. (2020, April 25). Ratas: Easing of restrictions requires a lot more measuring. *ERR*. Retrieved from <https://news.err.ee/1082234/ratas-easing-of-restrictions-requires-a-lot-more-measuring>
- Salter, P. (2020, May 01). Lessons For The World On How Estonia's Digital State Is Coping With Coronavirus. *Forbes*. Retrieved from <https://www.forbes.com/sites/philipsalter/2020/05/01/lessons-for-the-world-on-how-estonias-digital-state-is-coping->

with-coronavirus/?fbclid=IwAR0-edSrbCnsg7Q7E_rF6bIZ5zFHhOrbtv34PQcDQnLU6uR6NWolkqSPOL4#1487c2165001

Sildam, T. (2020, May 14). Minister Tanel Kiik: järgmine kord tahame Eesti vähem kinni panna. *ERR*. <https://www.err.ee/1089233/minister-tanel-kiik-jargmine-kord-tahame-eesti-vahem-kinni-panna>

Turovski, M. (2020, April 19). Kokk: No country can keep paying a 70 percent salary benefit for long. *ERR*. Retrieved from <https://news.err.ee/1079327/kokk-no-country-can-keep-paying-a-70-percent-salary-benefit-for-long>

Vahtla, A. (2020, April 15). Riigikogu passes supplementary budget bill into law. *ERR*. Retrieved from <https://news.err.ee/1077760/riigikogu-passes-supplementary-budget-bill-into-law>

Velmet, A. (2020, April 30). Shock Doctrine in Action. Estonia's Response to COVID-19.

Visegrad Insight. Retrieved from <https://visegradinsight.eu/shock-doctrine-in-action-estonia-covid-19/?fbclid=IwAR1OejNN83ufeKbtsuyNYQSZRHtzMijbXMOGqNdL4qcRUXNjHOuVJrzUB6Q>

Whyte, A. (2020a, April 23). Government coronavirus commission unveils exit strategy plan. *ERR*. Retrieved from <https://news.err.ee/1080905/government-coronavirus-commission-unveils-exit-strategy-plan>

Whyte, A. (2020b, April 11). Survey: Over 90 percent of citizens support continued COVID-19 restrictions. *ERR*. Retrieved from <https://news.err.ee/1076082/survey-over-90-percent-of-citizens-support-continued-covid-19-restrictions>

Whyte, A. (2020c, April 08). Random coronavirus testing being introduced to give state clearer picture. *ERR*. Retrieved from <https://news.err.ee/1074336/random-coronavirus-testing-being-introduced-to-give-state-clearer-picture>

Worldometers. (2020). *COVID-19 Coronavirus Pandemic*. Retrieved from <https://www.worldometers.info/coronavirus/>

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