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POLITICAL REGIMES AND VACCINE PROCUREMENT POLICIES
DURING THE COVID-19 PANDEMIC

Bachelor's Thesis

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Abstract

The objective of this analysis, is to understand where from did countries with different democracy levels procure vaccines, what countries took part in vaccine diplomacy and vaccine nationalism and what countries with different democracy levels have interacted with each other regards to vaccine procurement. The analysis was conducted categorizing nine countries – Estonia, Canada, Japan, Hungary, Brazil, Indonesia, China, Cuba and Russia, based on their democracy level, subsequently finding how these countries' governments procured vaccines or exported them and finally analysing the findings.

Estonia, Canada and Japan in the Democratic group category, procured vaccines exclusively from private pharmaceutical companies, because these private companies were transparent in their clinical trials on the efficacy and safety of the vaccines. Countries in this group would not procure vaccines from foreign state-owned enterprises, because that would indicate support for that government.

Hungary, Brazil and Indonesia in the Flawed Democracy group, were most likely to procure vaccines from private pharmaceutical companies and from foreign state-owned enterprises. This is due to lower standards on transparency during clinical trials and on the efficacy and safety of the vaccines. Flawed Democracy group is the receiver part of vaccine diplomacy.

China, Cuba and Russia in the Nondemocratic group, were most likely to develop, approve and manufacture vaccines exclusively from their respective state-owned or local enterprises, due to protectionism. China and Russia valued more exporting vaccines, than vaccinating their populations, while Cuba determined on vaccinating their public.

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Introduction

The world-wide pandemic caused by SARS-CoV-2 (Covid-19) virus, has been the biggest global crisis during the 21st century. Covid-19 is a severe respiratory contagious disease. The first confirmed cases were in Wuhan, China, but rapidly the virus spread to numerous countries and by March of 2020, it was declared to be a pandemic by the World Health Organization. The research for vaccines was underway in an unprecedented speed, billions of dollars were funded for vaccine development. Many pharmaceutical companies, state-owned companies and university research groups started research with the hopes of creating a safe and effective vaccine as soon as possible. This thesis covers the period from the start of the pandemic up to the time of writing this paper, from January of 2020 until May of 2022. For a multifaceted overview, there are nine countries analysed in this thesis, from different continents and political backgrounds.

Governments have played a direct role in funding, developing and procuring vaccines and, because not all states have the same democracy level, this thesis will try to find if there are similarities in the democracy level of a country and where, what and how were vaccines approved and procured. This topic continues to be relevant, because this pandemic is ongoing as the virus continues to spread and mutate. Vaccines are continuously being researched, after nearly a year and a half from the first vaccinations, especially for the long-term effects. Vaccines have been the most important means to save millions of lives, lessen hospital admissions and keep people from developing serious complications. This topic is multifaceted, meaning there is research potential in every field about Covid-19 vaccines from medical to the economic field.

This research paper will attempt to analyse from where did countries with different democracy levels procure vaccines, what countries took part in vaccine diplomacy and vaccine nationalism and what countries with different democracy levels have interacted with each other regards to vaccine procurement. First, I will define characteristics of democracy, vaccine diplomacy, vaccine nationalism and illiberalism. Secondly, I will categorize nine countries, that I have chosen to analyse, to three groups, based on their democratic level. For the categorization, I will use data from V-Dem, Economist Intelligence Unit and Freedom house. Thirdly, I will introduce each country by the group they are in, bring out their approved vaccines and give an

overview of the vaccine procurement. Lastly, I will analyse the findings, bring out connections between the groups and how and where has each group procured the vaccines.

1. Theoretical Framework

1.1 Democracy

Robert Dahl has illustrated liberal democracy or as described, polyarchy, with these characteristics – “right to vote, right to run for public office, freedom of expression, right to vote, free and fair elections, through votes and other expressions of preference the right to control government policy, freedom of alternative sources of information, freedom to form and join organisations” (1971). The Human Rights Council declared the following elements as the fundamentals of democracy – “respect for human rights and fundamental freedoms, access to power and its exercise in accordance with the rule of law, the separation of powers, the independence of the judiciary, transparency and accountability in public administration, free, independent and pluralistic media, a pluralistic system of political parties and organizations, the holding of periodic free and fair elections by universal suffrage and by secret ballot as the expression of the will of the people, freedom of association and expression” (United Nations).

There are limitations to accuracy from research institutions that assign democracy indexes to countries. Lefort explains that democracy cannot be described as just a form of government, it is rooted in society and is a way of life (Ludwig 2020, 163). Therefore, it is also important to take into account “division of labour, kinship, gender and sexual politics”, since focusing only on politics of state might be misleading (*ibid.*). There is also a possibility for an established democratic country to host an illiberal effort, this would include that said country has had previous experience with liberalism, it is a modernised version of classical conservatism, but it is more leaning towards populism and far-right ideologies and it criticises liberal elements, like minority rights (Laruelle 2021, 5). Illiberalism does not advocate directly for the change of regime structure, but it does favour certain ideals a government should focus on – it should reject the supremacy of international organisations and focus on the nation-state; in politics it should back majoritarianism and favour direct connection between the people and leader; in economics, it should encourage protectionism and finally, it should denounce globalism, minority rights and multiculturalism, promoting again majoritarianism and, in necessity, assimilation of ethnic minorities (*ibid.*).

The threat to most autocratic regimes is the emergence of democratic ideas. Autocratic governments will try to restrict the exposure of democratic ideas and try to control the narrative of democratic countries to reduce exposure (Vanderhill 2017, 41). Although China has gone

through economic reforms, which many believed would lead to wider spread of democracy in the state, it has through the last decades controlled the state to stay authoritarian. Vanderhill denotes restricted democratic diffusion to being the reason behind China staying authoritarian, especially their ability to censor, control and manipulate media and the internet (2017, 49). It is not common anymore to have sudden turns to authoritarianism, but rather slow and multiple democratic norm violations, moving gradually or fluctuating from democracy to authoritarianism (Lührmann and Lindberg 2019, 1098). In the case for Hungary and Russia, they followed the same route, leaders came to power by democratic means, but by progressively undermining fundamentals of democracy their democratic index has lowered, yet key democratic institutions have remained (Lührmann and Lindberg 2019, 1105). Glasius distinguishes differences between authoritarianism and illiberalism as well, for authoritarianism practises in an organised way “disabling access to information and disabling voice” and illiberalism breaches autonomy and can cause human rights violations, but what they have in common is “violating freedom of expression” (2018, 531).

1.2 Vaccine Nationalism and Vaccine Diplomacy

Rutschman describes vaccine nationalism as follows: when national governments reserve and stockpile millions of vaccines for domestic use (2021, 9). This usually hinders the purchasing of vaccines for low-income states, because of the reduced amount of vaccines available from the limited production capabilities of pharmaceutical companies. Therefore, low-income states cannot afford the higher price for vaccines that high demand and scarcity can create (Walter 2022, 2). This inequality of accessibility for life-saving vaccines brings forth ethical questions, but from the perspective of realism, these independent countries act in a self-interested way to procure as many vaccines as possible for their population (*ibid.*). Countries trying to limit the spread of the disease, without administering vaccinations, prolong disruptions, which in turn, restrict the freedoms of the population for a longer period of time. In domestic politics for high-income countries, it is also sensible to please the population by pre-ordering and hoarding as many vaccines as possible, therefore pleasing the population for keeping the society safe, which increases their government’s approval ratings and unused vaccines, in turn, can be donated for an improved international image (Gruszczynski and Wu 2021, 712). Many developed states, including EU member states, Japan and Canada, by January 2021, had contracts with multiple pharmaceutical companies, which procured them around 60% of the vaccines available, while the countries’ combined population was only 14% of the world’s population (Gruszczynski and Wu 2021, 713). This not only increases infection and death rates

in low-income and less developed countries, but leaves them vulnerable to price gouging and to foreign state-developed vaccines, that see this as an opportunity to spread soft power. Russia and China, both countries with state-sponsored vaccines, have amassed “accusations of vaccine diplomacy”, because they have sought out low-income countries to distribute vaccines to (Kampmark and Kurečić 2022, 9). Su et al. have juxtaposed vaccine diplomacy with vaccine empathy, and that it is an “individual or a nation’s capability to sympathize with other individuals or nations’ vaccine wants and needs, whereas vaccine diplomacy is a nation’s vaccine efforts that aim to build mutually beneficial relationships with other nations ultimately” (2021, 1). The usage of vaccine diplomacy is more likely than vaccine empathy, because it promotes “deeper and stronger roots in multilateral collaboration and cooperation (*ibid.*).

Nye has defined ‘soft power’ as “the ability to affect others to obtain the outcomes one wants through attraction rather than coercion or payment” and according to Karásková et al., vaccines are “used as a tool, to reinforce established relations and capitalize on new opportunities (Lee 2021). Vaccine diplomacy is a form of soft power, which can create a positive image of the projecting country, without revealing the underlying objectives. China has targeted low-and middle income countries, who were struggling to secure doses due to the actions of vaccine nationalism by high-income countries, whereas China offered them contracts, donations and loans to buy the vaccines (Lee 2021). The European Union has had major problems with pharmaceutical companies, from delayed and insufficient orders of vaccines to threats of blocking vaccine shipments (Kampmark and Kurečić 2022, 12). According to Hungary’s officials, European Commission’s incompetence with vaccine delays and shortages, pushed them to approve vaccine’s that were not approved by the European Medicines Agency, like Sinopharm and Sputnik V (Kampmark and Kurečić 2022, 14). Therefore, not only does vaccine nationalism create inequality between nations for the procurement of vaccines, flawed democratic countries are vulnerable to offers from foreign state-produced vaccine contracts, that come under the guise of altruistic aid, but are rather attempts of projecting soft power. With the haste of procuring as many vaccines as possible, democratic countries could only look at the short-term benefits, i.e., get vaccines, get the population vaccinated and re-open society. In the long term, in unvaccinated areas of the world, there will be new mutations of Covid-19, which through our interconnected world, will travel to states that have high vaccination rates, but are still vulnerable to new strains of the virus. This will prolong the pandemic, and cause democratic states the economic loss they were trying to avoid with the hoarding of vaccines for their states in the first place (Gruszczynski and Wu 2021, 715). According to Gruszczynski

and Wu, vaccines should have been first available in states, “where the risk of exponential growth is the highest” (2021, 715).

2. Method and Categorization

2.1 Method

The goal of this research is to analyse from where did countries with different democracy levels procure vaccines, what countries took part in vaccine diplomacy and vaccine nationalism and what countries with different democracy levels have interacted with each other regards to vaccine procurement. For the first part of the research, I brought out the characteristics of democracy, illiberalism, vaccine nationalism and vaccine diplomacy. After, I will categorize the chosen countries into groups. I used quantitative data to assign the level of democracy and for number of doses purchased. In the second part of the research, I used qualitative data, to describe the countries' vaccine approval and procurement process. There is limited availability in academic materials on this subject, as it is a recent transpiration, which has been developing in the past two years (2020-2022). Similarly, there is limited availability on the information about vaccine purchases from pharmaceutical companies, number of doses and price per dose. Countries and their approved vaccines are from VIPER Group COVID19 Vaccine Tracker Team, which does update the approved vaccines regularly. Contracts between state and pharmaceutical company are confidential and the available information is released by the state representatives. The material used is varied, because of the limited available information. The countries' vaccine approval and procurement process materials are from news agency websites, academic articles, government websites, non-governmental or non-profit organisations and research institutes. This research compiles nine countries, which are categorized into three groups, based on their democracy level. In each group, I will give an overview of the countries vaccination approval and procurement with private pharmaceutical companies and/or foreign state-sponsored companies. In the analysis, I will bring out connections, that I have found in the overview of the groups. In each group, every country is situated on a different continent¹, which gives broader geographical variety. This data is based on the Varieties of Democracy (hereafter V-Dem) and Economist Intelligence Unit (hereafter EIU) and Freedom House from the years 2019-2021. The three-year measure is chosen from the beginning of the year COVID-19 was first discovered until the information available is provided. The scale for the EIU (measuring Democracy Index) and Freedom House is from 0 to 100, 100 being the highest score. The V-Dem scale is from 0 to 1, 1 being the highest score, measuring Liberal Democracy Index.

¹ Except for Russia, in the Nondemocratic group, which spans the continents of Europe and Asia.

2.2 Categorization of Countries' Democratic State

The first group consists of democratic countries. For this group, the chosen countries are Estonia, Canada and Japan. According to the EIU, the average Democracy Index score of Estonia, Canada, Japan, during 2019-2021, is 83.86 out of 100. According to the EIU classification of regimes, the score of Estonia, Canada and Japan would mean, as a group average, they are "Full democracies". The V-Dem chart illustrates, that Estonia's, Canada's and Japan's ratings are very similar to each other and different from other countries' ratings, meaning, they also visually form a group (*see Graph 1*). The Estonia, Canada and Japan group's average V-Dem's Liberal Democracy index rating from 2019 to 2021 is 0.78 out of 1. That is a high score on the Liberal Democracy index, meaning these countries are liberal democracies. Estonia, Canada and Japan are classified by Freedom House, with an average score of 96 out of 100, "Free" countries. Hereinafter, Estonia, Canada and Japan will be referred to as the Democratic group.

The second group consists of flawed democratic countries. For this group, the chosen countries are Hungary, Indonesia and Brazil. According to the EIU, the average Democracy Index score of Hungary, Indonesia and Brazil, during 2019-2021, is 66.2 out of 100. That score would place Hungary, Indonesia and Brazil in the "Flawed democracies" category, based on EIU's classification. The V-Dem chart illustrates that Hungary's, Indonesia's and Brazil's ratings are similar to each other and different from other countries' ratings, meaning they also visually form a group (*see Graph 1*). The Hungary, Indonesia and Brazil group's average V-Dem's Liberal Democracy index rating from 2019 to 2021 is 0,44 out of 1. That is close to an average score on the Liberal Democracy index, meaning they have some faults in their democratic process, "including problems in governance, an underdeveloped political culture and low levels of political participation" (The Economist Intelligence Unit 2022, 68). The groups average Freedom House score is 68.3, meaning they are "Partly Free" countries. Hereinafter, Hungary, Indonesia and Brazil will be referred to as the Flawed Democracy group.

The third group consists of nondemocratic countries. For this group, the selected countries are Cuba, China, and Russia. According to the EIU, the average Democracy Index score of Cuba, China and Russia, during 2019-2021, is 27.4 out of 100. Based on EIU's classification, this score would place Cuba, China, and Russia in the "Authoritarian regimes" category. The V-

Dem chart illustrates, that Cuba's, China's, and Russia's ratings are similar enough to visibly form a group (*see Graph 1*), distinct from the other countries' groups. The average of Cuba's, China's, and Russia's Liberal Democracy index rating from 2019 to 2021 is 0.08 out of 1. This score is extremely low and it illustrates the fundamental flaws and repressions by these countries' governments. The groups average Freedom House score is 14.5 out of 100, from 2019 to 2021, meaning they are classified by Freedom House as "Not free" countries. Hereinafter, Cuba, China, and Russia will be referred to as the Nondemocratic group.

Russia, China and Cuba are authoritarian governments, therefore private or state-owned pharmaceutical companies operate under direct supervision of government or they are influenced by it. This is especially relevant during the pandemic, when vaccines are a crucial part in maintaining public health. The government partially or fully funds vaccine development, negotiates contracts with foreign states governments and oversee vaccine efficacy and safety trials. Therefore, it is possible to estimate the democratic state of a nation, by calculating how many vaccines has a country approved, that originate from a nondemocratic state. Covilo vaccine = Sinopharm = China's state-owned company = authoritarian state = nondemocratic; Sputnik V = Gamaleya Institute = apart of the Ministry of Health of Russia = authoritarian state = nondemocratic; CoronaVac vaccine = Sinovac = private company in China = authoritarian state = nondemocratic. This accordingly applies to Mambisa, Zifivax, Convidecia, Soberana, Abdala vaccine.

Estonia, Canada and Japan have 0% of vaccines from nondemocratic states. In Hungary, there are in total 9 approved vaccines, 3 of these vaccines are from China and Russia, meaning 1/3 of the vaccines are from nondemocratic origins. In Indonesia, there are 10 approved vaccines, and 5 of them are from China and Russia, therefore 50% of the vaccines have nondemocratic origins. In Brazil, there are in total 7 approved vaccines, 3 of them are from China and Russia, therefore around 43% of vaccines are from nondemocratic origins. In total, the average of vaccines in Flawed Democracy group from nondemocratic countries is 42%. Russia, China and Cuba all have vaccines approved from nondemocratic countries.

Name	Year	Democracy index (EIU)	V-Dem (Liberal Democracy Index)	Freedom House
Canada	2019	92.20	0.77	99
	2020	92.40	0.75	98
	2021	88.7	0.76	98
Estonia	2019	79.00	0.84	94
	2020	78.40	0.83	94
	2021	78.40	0.84	94
Japan	2019	79.90	0.75	96
	2020	81.30	0.74	96
	2021	81.50	0.74	96
Average		83.86	0.78	96.1
Hungary	2019	66.3	0.37	70
	2020	65.6	0.36	70
	2021	65	0.36	69
Indonesia	2019	64.8	0.48	62
	2020	63	0.45	61
	2021	67.1	0.43	59
Brazil	2019	68.6	0.51	75
	2020	69.2	0.51	75
	2021	68.6	0.51	74
Average		66.2	0.44	68.3
China	2019	22.6	0.04	11
	2020	22.7	0.04	10
	2021	22.1	0.04	9
Russia	2019	31.1	0.11	20
	2020	33.1	0.1	20
	2021	32.4	0.1	20
Cuba	2019	28.4	0.09	14
	2020	28.4	0.09	14
	2021	25.9	0.08	13
Average		27.4	0.08	14.5

Source: EIU, V-Dem, Freedom House

3. Consumption of Vaccines in the Three Categories

In this research paper the focus will be on the consumption of the vaccines in a certain country and not the production locations of the vaccines. Most of the vaccines are manufactured also in foreign countries and not only in the country that the vaccine was developed in. Sputnik V vaccine from Gamaleya National Center is being manufactured in many countries, that it is not actually approved for usage, these include Italy, South Korea and China. On the other hand, Comirnaty vaccine by Pfizer/BioNTech is manufactured in countries, that have also approved the usage of the vaccine, these include United States, Germany and Ireland. This applies for the Sinopharm's vaccine BIBP, which has launched many manufacturing facilities in countries that have also approved the consumption, these include Serbia, Morocco, Bangladesh.

3.1 The Democratic Group

The Democratic group has the most similar approval of vaccines. Estonia is a member of the European Union, therefore it follows, but it is not mandatory, the European Medicines Agency evaluation on authorized vaccines. Canada and Japan have full autonomy to evaluate their own vaccine approval. The Democratic group's choices have still been very similar to each other, even though these countries are located on different continents, meaning the choice is not a convenience of shipping. All of Democratic group's vaccine purchases originate from private companies. Japan struggled more with vaccine approval and vaccinating the population took more time than other democratic countries. Because Japan had a low infection rate, there were not enough of participants to conduct domestic trials for Japan's own review process, which is a regulatory requirement (Kosaka et al. 2021). Japan's vaccination campaign started later than many other countries, by June 1st of 2021, the country had vaccinated 10.6% of the population, when Canada had vaccinated by then 58.2% and Estonia 35.9% (Ritchie et al. 2020). As in many countries, there have also been problems with vaccine shipping delays and with administrating vaccines, because of the medical personnel, who are allowed to administer the vaccine (Kosaka et al. 2021). This slow vaccination campaign did not mean that Japan would consider purchasing vaccines from its neighbouring countries, Russia and China. Kawata and Nakabayashi examined 15 000 Japanese people and found that vaccine's country of origins plays a role in people's preference for a vaccine, they were least likely to want to be administered a China-developed vaccine and it was followed by a Russia-developed vaccine, with a noticeable increase in preference (2021, 4). Most highly preferred were Japan-developed

vaccines, but US-and UK-developed vaccines were not far behind; it can be said that Japanese people were influenced by current geopolitics (*ibid.*).

Canadian citizens do not perceive Russia and China as an immediate threat, as maybe the Estonian and Japanese populations do, but still, Canadian government has not approved the use of China- or Russia-developed vaccines. By the end of January 2021, the start of vaccine roll-outs, Canada was able to purchase around 362 million vaccines, 4 doses per citizen (Kirk et al. 2021). Canada was one of the few countries in the world, that had huge amount of success in the beginning of procuring vaccines, but this amount of vaccines was definitely unnecessary, when most of the world had no access to vaccines at all. Canada is one of the examples of vaccine nationalism, where they had a huge advantage over other countries, based on being able to afford the vaccines and previous partnerships with pharmaceutical companies, they overpurchased vaccines that could have been distributed more proportionately. Canada's Public Services and Procurement minister, Anita Anand, commented on the success of vaccinations in Canada, highlighting contract securing early on with many manufacturers before any trials had been completed, "We knew we had access to those vaccines because of our contracts. And we began to press very, very aggressively for early deliveries from the suppliers." (Cecco 2021). Anand remarks, that Canada had to fight for the first shipments vaccination doses, because of noncompliance and protectionist stance from the US, failed negotiations with UK and other nations to share vaccines, and because Canada lacked domestic production (*ibid.*). Canada has vaccinated around 82.4% of the population, but it is still purchasing vaccines. Canada decided in 2020 to invest in a Canadian based firm, Medicago, around 140 million dollars to produce the first domestic vaccine and to ensure biomanufacturing capability (Coletta 2022). The produced vaccine, Covifenz, was authorized in February of 2022, only in Canada, and purchased for 20 million doses. Medicago's application to World Health Organization for the emergency authorization has not been accepted as of yet, because tobacco company Philip Morris International owns around one-third of Medicago (Coletta 2022).

All of Democratic groups approved vaccine companies are based in countries, where Democratic group's countries have strong ties of political and economic cooperation. Pfizer/BioNTech is cooperation between a United States and German company; Oxford/AstraZeneca is cooperation between a United Kingdom university and company; Johnson & Johnson, Moderna and Novavax are a United States companies. Pfizer's revenue

before the pandemic, from 2010 to 2019, United States and developed Europe contributed 162.1 million dollars more than rest of the world (Mikulic 2022b). Meaning these countries were more familiar and have more purchasing power than rest of the world from one of the biggest pharmaceutical companies in the world. Similar to Pfizer, AstraZeneca's revenue before the pandemic, from 2013 to 2019, United States and Europe combined contributed 28.6 million dollars more than in rest of the world (Mikulic 2022a). United States made an advance purchase agreement with Pfizer, before the vaccine was developed, for 1.95 billion dollars, essentially having the security of a market to sell to and financial means to develop the vaccine as fast as possible (Weiland et al. 2020). The United States government launched a project and in total, the budget to invest in development and production of vaccines, was 10 billion dollars (Deutsch and Wheaton 2021). The United Kingdom supported the development of the Oxford/AstraZeneca vaccine with 88 million pounds, in which 65.5 million pounds was for early manufacturing (Department of Health and Social Care 2022). The European Union supported multiple companies and research facilities with 1 billion euros and then the Commission invested 2.9 billion for Advance Purchase Agreements, guaranteeing vaccines for member states, when they have been tested to be safe to administer (European Commission). South Africa paid around 2.5 times more per dose of Oxford/AstraZeneca vaccine than the EU member states, which are more affluent countries, that could pay higher price higher price for the vaccines (Sullivan 2021). Estonia has followed the European Medical Agency's approved list of vaccines and also participated in the joint procurement deals, because that will have more favourable terms, then negotiating alone. Estonia has a minority Russian ethnic group around 24% of the population and while interviewing the Russian-speaking elders, it was found that their unwillingness to get vaccinated stems from believing that Russian vaccines are better than vaccines from Western countries (Sotsiaalministeerium 2021, 10). At the end of 2020, the Russian ambassador in Estonia commentated that many companies and private individuals have inquired about the possibility of getting Sputnik V (Mihhailov 2020). Estonia's Prime Minister Kaja Kallas, remarked that Estonia is following the European Medicines Agency's list of approved vaccines, and if it is approved by the agency, said vaccine could be used in Estonia as well (ERR 2021). Kallas noted that Russia might use Sputnik V as a political weapon, because it is sold to other countries, but is not readily available in Russia (*ibid.*). Sputnik V has not been approved for vaccinations by the European Medicines Agency or certified by the World Health Organization, because they have not provided adequate documentation (AFP 2021b).

	Canada	Japan	Estonia
<i>Vaccine company</i>	Pfizer/BioNTech	Pfizer/BioNTech	Pfizer/BioNTech
<i>Approved vaccine name /</i>	Comirnaty /	Comirnaty /	Comirnaty
<i>X number of purchased doses</i>	102.9 million doses	399 million doses	
	Moderna	Takeda	Moderna
	Spikevax /	TAK – 919 (Moderna	Spikevax
	84 million doses	Formulation)	
		133 million doses	
	Oxford/AstraZeneca	Oxford/AstraZeneca	Oxford/AstraZeneca
	Vaxzevria /	Vaxzevria /	Vaxzevria
	22 million doses	80 million doses	
	Novavax	Takeda	Novavax
	Nuvaxovid /	TAK-019 (Novavax	Nuvaxovid
	52 million doses	formulation) /	
		150 million	
	Johnson & Johnson		Johnson & Johnson
	As26.COVS.2.S		As26.COVS.2.S
	10 million doses		
	Medicago		
	Covifenz		
	76 million doses		

3.2 The Flawed Democracy Group

Flawed Democracy group countries have the most varied approval of vaccines, both from state-owned enterprises and private companies. Most notable exemption, from the European Medicines Agency evaluation on authorized vaccines and joint vaccine procurement, has been Hungary. Hungary's representatives have cited Europe as being too slow in procuring vaccines and they had to turn to Russia in order to receive doses faster (Than and Komuves 2021). Hungary has authorized the usage of Gamaleya National Center's Sputnik V vaccine, Sinopharm's vaccine BIBP and CanSino's Covidecia. Hungary has been an important partner for China in Eastern-Europe; Hungary has received around 24 billion dollars of investment and Hungary, in turn, has supported China by having no diplomatic relations with Taiwan and has supported China's increasing control over Hong Kong (Chen 2022, 12-13). Hungary's Prime Minister Viktor Orbán has openly supported China citing them as a "success story", for Hungary is China's most stable political partner in Eastern-Europe and China hopes that slowly other European Union member states would trust them and could support European Union's trade policy with China (Matura 2019). Hungary, also being part of the Belt and Road Initiative, according to Gyu, became higher priority in receiving China-developed vaccines. According to Ngeow, former relations with the Belt and Road Initiative, China has the possibility to create a new "Health Silk Road", which they use to "influence global health governance" (Chen 2022, 4). While other European countries, including Estonia, were waiting for their turn in receiving the vaccines, China wanted to show, by quickly exporting vaccines to Hungary, that they would be open to/prepared striking a deal with them. There has been a worrying amount of evidence that the Hungarian government has been trying to repress information flow during the pandemic. Public interest data requests have gone from 15 days to 90 days during the pandemic, with an explanation that this information could be sensitive, because it would "set back defensive measures against the pandemic and independent media organisations are not allowed to report from hospitals", and healthcare workers cannot make public statements (Peragovics and Kállai 2021: 36). With vaccine delays all over Europe, the Hungarian government wanted to speed up their vaccination process, and thus, in January 2021, Hungary approved Sputnik V and Sinopharm with only three days apart. There was an absence of evidence on the safety of the vaccines, but the government sought to show how fast they could vaccinate their population over other European countries, which would garner them more positive ratings for the 2022 parliamentary elections (Peragovics and Kállai 2021, 37). Delayed Oxford/AstraZeneca vaccines to Hungary was the rationale to approve and purchase Sinopharm's BIBP vaccine,

but Chinese vaccine has a high price tag of 30 euros per dose, while Oxford/AstraZeneca made a deal with the European Union for 1.78 euros per vaccine dose (Wee and Novak 2021). Both Russian and Chinese vaccine approval integrity is under question, because Hungary's National Institute of Pharmacy and Nutrition approved Sputnik V only two days after the start of conducting animal experiments (Kozák 2021). In 2014, when Russia annexed Crimea, the European Union and United States were ready to retaliate against Russia with sanctions, Viktor Orbán signed multiple contracts with Gazprom, meaning Hungary has opted for favourable relations with Russia (Kenes 2020, 19). Orbán has related to Putin in many ways: they both recant the past glories and greatness of their respective countries, both prefer to raise the importance of state in their economies and both see Europe and the rest of the West as flawed (Djankov 2015, 1). There are similar document findings that suggest Sinopharm's vaccine BIBP, was authorized because of government's pressure to do so, although there was no adequate information on safe use, no data of Phase 3 trial's research and no domestic peer review study before, or after, the approval of the vaccine (Kozák 2021).

Indonesia and China have had a close economic partnership. China has become the biggest trading partner, third biggest foreign investor in Indonesia and they have signed a Comprehensive Strategic Partnership deal (Anwar 2019 145, 156). Increasingly during the Covid-19 pandemic, investments from China have contributed to Indonesian GDP over 10 billion dollars (Rakhmat and Pashya 2021, 1-2). There are reportedly around 15 Indonesian political parties that have established ties with the Chinese CCP party (Rakhmat and Pashya 2021, 15). These increasing investments and Chinese ventures are a possibility of making deals of purchasing corona vaccines from China, because they have established business relations. Three million doses of CoronaVac arrived in Indonesia during the last days of December 2020, making Indonesia the first foreign country where CoronaVac was going to be administered, during a time, when transparent data was not available, and Phase 3 trials were also conducted in Indonesia to research efficacy (Tarigan and Milko 2021). Right before vaccinations started in Indonesia, China's Foreign Minister Wang Yi visited the country to discuss healthcare, economies and there is no doubt further talks of purchasing of vaccines was discussed (Rakhmat and Pashya 2021, 13). The first vaccine was administered to the President of Indonesia Joko Widodo, with the CoronaVac vaccine, showing the great confidence of the China-developed vaccine. Around 80% of the vaccines acquired by Indonesia have been from China, and 20% of exported vaccines from China have been to Indonesia, meaning Indonesia has heavily relied on the continues shipment of vaccines from China (AFP 2021a). Many

mRNA vaccines, for example by Pfizer, BioNTech and Moderna, have to be stored in sub-zero temperatures, that for Indonesia could be a very expensive extra cost other than purchasing the vaccines; on the other hand, even though Oxford/AstraZeneca has to be only kept in 2 to 8 degrees Celsius, AstraZeneca had distribution limitations (McGregor 2020). An Indonesian state-owned company has collaborated with Sinovac and produced the vaccines in Indonesia, but for the future, Indonesia's Minister of Research and Technology, Bambang Brodjonegoro says that Indonesia has the abilities to mass produce vaccines independently (Wicaksono et al. 2021, 36). Russia and Indonesia have substantial economic ties, in that Indonesia in 2020 exported 1.24 billion dollars' worth of products and Russia exported 671 million dollars' worth to Indonesia (OEC). Additionally, Russia and Indonesia cooperate in the military field, as Indonesia operates multiple Russian made defence equipment, they have carried out joint military exercises and there are annual meetings of defence ministries (Manurung 2021, 35-36). Even with the cooperative partnership with Russia, Sputnik V was only authorized for use in Indonesia in August of 2021 and by this time, Indonesia had approved Sinopharm and Sinovac vaccines, but also Moderna, Pfizer/BioNtech and Oxford/AstraZeneca (Jakarta Globe 2021). There is no confirmed data on how many vaccines Indonesia procured from Sputnik V, if the shipment has arrived, and if they have been administered.

Brazil and China enjoy a close economic partnership: China is Brazil's largest trading partner and Brazil is China's biggest trading partner in South-America. On the one hand, during the presidency of Jair Bolsonaro, the relationship has worsened, when in 2019, he accused China of trying to "buy Brazil" (The Economist 2021). After 2010, when investments from China were at an all-time high, around 13 billion dollars, investments fell to only around four billion dollars in 2021 (*ibid.*). After the son of the president on the social media platform Twitter referred to Covid-19 as the 'China virus', China's consul general to Brazil published an article in 2020 where he criticised the president harshly by proclaiming that he had become a puppet of the United States, and had not handled the pandemic well, and ended with stating that he definitely does not want to make China his enemy (Stuenkel 2020). Bolsonaro has sided more with the nationalist Trumpist ideology, which sees China as an enemy, but the government has been divided on this stance as well, the opposition to Bolsonaro see China as an incredibly important part of the economy and do not want to endanger the partnership (Stuenkel 2020). Under Bolsonaro's administration, Brazil has suffered greatly during the pandemic, because he has viewed it as a hoax, his family has been accused of corruption and he has put military personnel to work in the health ministry, even though they might not have experience in public

health (Trinkunas 2020). CoronaVac's vaccine first trials out of China were conducted in Brazil and while they celebrated the success of the trials, they were only allowed to release that the vaccine had higher than 50% efficacy, an accepted amount for authorization (Cohen and Moutinho 2021). These trials, later import of over 130 million vaccines and manufacturing, was supported by the governor of São Paulo, who is an opponent of the Bolsonaro (*ibid.*). Beginning of 2021, when vaccinations started in Brazil, around 80% of vaccines administered were CoronaVac, but a year later, less than 35% are from Sinovac or Sinopharm, most administered vaccines now are produced by AstraZeneca and government recommending Pfizer/BioNtech for a booster shot (Magalhaes and Pearson 2021). Many countries, that had early shipments of Oxford/AstraZeneca and Pfizer/BioNtech, have acquired enough vaccines by end of 2021, that less developed countries, who did not have the possibility of purchasing these vaccines, have the option or they are receiving donations (*ibid.*). Brazil and Russia have not shared as close of an economic relationship as Brazil and China, but they are part of the grouping of emerging economies, BRICS (Brazil, Russia, India, China and South Africa). Vladimir Putin and Jair Bolsonaro have a warm relationship, highlighted by the President of Brazil visiting Russia a week before the invasion of Ukraine, even though the United States warned against it (Osborn 2022). Although Bolsonaro destabilized Brazil's relations with China with accusatory comments about the pandemic, he has been publicly impartial to Russia invading Ukraine, citing Brazil's necessity of purchasing fertilizers from Russia; in 2021 they purchased 3.5 billion dollars (Libardi 2022). Sputnik V was supposed to be approved by the Brazilian Health Regulatory Agency, but they blocked it from entering the country citing reasons of inconclusive data, denied access to production sites in Russia and allegations of dangerous substances in the second dose (Moutinho and Wadman 2021). A month later this ban was redacted, giving Sputnik V conditional approval, but Brazil cancelled a contract of ten million doses of Sputnik V, noting the absent emergency approval from Brazilian Health Regulatory Agency (Reuters 2021).

	Hungary	Indonesia	Brazil
<i>Vaccine company</i>	Pfizer/BioNTech Comirnaty	Pfizer/BioNTech Comirnaty 50 m doses	Pfizer/BioNTech Comirnaty 300 m doses
<i>Approved vaccine name</i>	Moderna Spikevax	Moderna Spikevax 5.2 m doses	-
	Oxford/AstraZeneca Vaxzevria	Oxford/AstraZeneca Vaxzevria 50 doses	Oxford/AstraZeneca Vaxzevria 102 m doses
	Novavax Nuvaxovid	-	-
	Johnson & Johnson As26.COVS.2.S	Johnson & Johnson As26.COVS.2.S	Johnson & Johnson As26.COVS.2.S 38 m doses
	Gamaleya Sputnik V 2 m doses	Gamaleya Sputnik V	Gamaleya Sputnik V
	Sinopharm (Beijing) Covilo 5 m doses	Sinopharm (Beijing) Covilo 15 m doses	Sinopharm (Beijing) Covilo
	CanSino Convidecia	CanSino Convidecia 15 m doses	-
	Serum Institute of India Covishield (Oxford/AstraZeneca formulation)	-	Serum Institute of India Covishield (Oxford/AstraZeneca formulation)
	-	Sinovac CoronaVac 125 m doses	Sinovac CoronaVac 100 m doses
	-	Serum Institute of India Covovax (Novavax formulation) 50 m doses	-
	-	Anhui Zhifei Longcom Zifivax	-

3.3 The Nondemocratic Group

China has received the lowest scores out of the nine countries in this thesis, in the Democracy Index, V-Dem Liberal Democracy Index and Freedom House. China is a one-party communist state, which according to the low democracy score is also authoritarian, headed by the General Secretary of the Chinese Communist Party. The three most widely used vaccines that were developed in China are Sinopharm (Beijing), which is a China state-owned enterprise. Its vaccine is named BIBP and has gained approval for use in 91 countries. Sinovac, which is a private company and its vaccine is named CoronaVac has been approved for usage in 55 countries. Thirdly, private company CanSino's Convidecia vaccine has been approved in 10 countries. Therefore, not all of the companies that developed Covid-19 vaccines in China are state-owned companies, but these companies do operate under a very authoritarian regime, which influences and can possibly direct the choices of the company. China has played an important role as a vaccine developer and exporter to the rest of the world. This was the assurance that General Secretary of the Chinese Communist Party made: vaccines from China would be exported for the "global public good" (Mardell 2020). Many countries have benefited from having access to China-developed vaccines, when access to other vaccines was not liberally available. The China-developed vaccines use inactivated virus, while Pfizer/BioNtech, Moderna and Oxford/AstraZeneca vaccines use mRNA technology. There have been studies where, in conclusion, it is recommended to use mRNA vaccines to use as a third or booster jab, if the previous vaccines have been inactivated virus vaccines (Kuchler et al. 2022). This is due to variants of the virus mutating to be more infectious and inactivated virus are less effective. Another study displayed that CoronaVac has proven not as effective as Pfizer/BioNtech vaccine, because people over 60 who received the two doses of inactivated virus vaccine were three times more likely to die than those who received two doses of mRNA vaccines (McMenamin et al. 2022). Because Chinese vaccines have used a less effective method for vaccines and have not imported vaccines with mRNA technology, this restricts the options of Chinese citizens. The lack of variety and assortment of vaccines, endangers the lives of the most vulnerable. The beginning of June 2021, when China was and already had exported hundreds of millions of vaccines to multiple countries, they struggled to inoculate their own population. While Canada had vaccinated 58.3% of the population with the first dose, China had vaccinated only around 4.8%². Previous examples of Brazil and Indonesia demonstrate

² There is limited availability on the percentage of population vaccinated in China, but this was calculated by the number of doses given and the population size.

that they were able to start vaccinations in their states during January of 2021, because of vaccine supplies from China. Therefore, it was not China's priority to get their citizens to vaccinate as fast as possible, but it was equally important to negotiate contracts and export vaccines to foreign states. The vaccination campaign was slow due to shortage of glass vials for vaccine doses and low incentive to get vaccinates (McGregor 2021). Incentives to get people vaccinated have ranged from rewarding food or household products to allegedly instituting local lockdowns to motivate people to get vaccinated (*ibid.*). Furthermore, due to China's communist regime, Communist Party members and government workers have been 'advised' to vaccinate (*ibid.*). This soft pressure is actually a very direct way of making members/workers get vaccinated, because vaccination data is available to the government and, to carry favour inside the party, they should not go against what is 'advised' for them by the ruling government.

Cuba is a communist country, which has had a United States embargo for the past 60 years. This disrupts import of basic necessities – food, clean water and medicine, which is definitely needed during the pandemic. The United States Cuban interest groups claim that “[...] there are supposed to be humanitarian allowances under the embargo framework, in practice, there are severe limitations and obstacles to delivering humanitarian assistance to Cuba” (Sesin, 2020). This is denied by the United States government and confirmed by Cuban Foreign Minister, who remarked that it makes it hard to import equipment, medicines and material to fight the spread of the pandemic (*ibid.*). Even with these impediments, Cuba has been successfully managing the pandemic and has not stopped Cuba of being successful in developing, testing and manufacturing their own vaccine. This is due to universal, free public health care, with emphasis on prevention, the state has experience in disaster risk reduction mostly in natural disasters and most importantly for developing vaccines, they have a highly-developed biopharmaceuticals industry, that produces 70% of domestically consumed medicines and exports it to 50 countries (Yaffe 2020, 2). Duckett and Munro found out, that when in an authoritarian regime, there is strong health care system, there is higher trust in the government (2021). The two developed vaccines, Soberana 2 vaccine of Finlay Institute in Havana and Abdala vaccine Cuba's Center for Genetic Engineering and Biotechnology, are both approved for emergency use in Cuba. Both vaccine developers are funded by the Cuban government and the vaccine names have patriotic meaning in Cuba: Soberana meaning 'sovereign' and Abdala is the title of a poem by a Cuban revolutionary. The vaccination campaign has been successful, with around 88% of the population fully vaccinated, but during

the Covid-19 Delta variant surge (the population was vaccinated around 30%), when vaccines were in short supply, because of the lack of components for the vaccine, the Cuban government decided to approve the Sinopharm vaccine (Marsh 2021). Cuba's vaccines have been exported to other countries with low-democratic levels – Iran, Nicaragua, Venezuela, Mexico and Vietnam and donated to Syria and St. Vincent and the Grenadines. Cuba has only negotiated contracts with other communist or low-democratic countries on vaccines and has not accepted vaccines from international health organizations.

Russia was the first country to announce their vaccine in August of 2020. The vaccine, called the Sputnik V vaccine, is made by Gamaleya Research Institute of Epidemiology and Microbiology, which is funded by Russian Direct Investment Fund. The vaccine is the namesake of the first satellite orbiting Earth and the name still carries importance in Russia, being also the name of a state-owned news agency. Russia has approved only the vaccines that were developed by the Gamaleya Research, which is a part of the Ministry of Health. With Russia being the first to approve a Covid-19 vaccine, one would think their vaccination campaign started before other countries. But the campaign's main issues were vaccine hesitancy, which stems from mistrust towards the healthcare system and wide-spread anti-vaccination (Holt 2021, 722). The other reason was low supplies, mainly in the rural areas of Russia, this is caused by exports of vaccine to other countries (*ibid.*). There have been multiple alleged problems with the production of Sputnik V, cross-contamination between the two-vaccine doses and there were problems with the second dose, being the most likely problem why contract with Brazil failed (The Bell 2022). The World Health Organization has not approved Sputnik V, citing reasons of not meeting necessary standards on manufacturing and a spokesperson from Kremlin named the reason to be having different understandings of standards (AFP 2021b). Rushed vaccine approval and inadequate manufacturing are the main downfalls of Sputnik V.

	China	Cuba	Russia
<i>Vaccine</i>	Anhui Zhifei Longcom	Center for Genetic Engineering and Biotechnology	Gamaleya
<i>company</i>	Zifivax	Abdala	Sputnik V
<i>Approved</i>	CanSino	Instituto Finlay de Vacunas Cuba	Gamaleya
<i>vaccine name</i>	Convidecia	Soberana 02	Sputnik Light
	Shenzhen Kangtai Biological Products Co	Instituto Finlay de Vacunas Cuba	Vector State Research Center of Virology and Biotechnology
	KCONVAC	Soberana Plus	Aurora-CoV
	Sinopharm (Beijing)	-	Vector State Research Center of Virology and Biotechnology
	Covilo		EpiVacCorona
	Sinovac		Chumakov Center
	Coronavac		KoviVac
	Sinopharm (Wuhan)	-	-
	Inactivated (Vero Cells)		

4. Analysis

Democratic group's countries follow the democratic norms proposed by Dahl, the norms that have been important during the procuring, developing and vaccinations campaigns, there has been freedom of alternative sources of information, freedom of expression and the right to control government policy. Democratic process is known to take more time than for example authoritarian, because of the amount of opinions to be considered. During the pandemic, the most important is to do things with haste, to fight the spread of the virus, furthermore, restrictions have to be established fast, hospitals prepared and vaccines developed. Outsourcing vaccine development and manufacturing to private pharmaceutical companies is characteristic of democratic countries. Democratic countries have former experience of being large purchasing clients of these pharmaceutical companies, therefore they have previous business experience with these companies. Private pharmaceutical companies have to be transparent regarding clinical trials, safety and production of the vaccine to international and domestic medical agencies. Transparency in clinical trials, on the effectiveness and safety of the vaccine, is crucial for democratic countries. They also have been the biggest funders of developing and producing these vaccines, meaning they are more likely to have first and continuous information about safety trials and the quality of the vaccine. The Democratic group would not purchase from nondemocratic foreign state-owned enterprises, because that would indicate support for said government. They would also not purchase vaccines from nondemocratic foreign state-owned enterprises, because of limited amount of safety and data on the vaccines. Canada has showed signs of vaccine nationalism with the procurement process of vaccines, purchasing 4 times the amount of vaccines it would need for the population, while other countries struggled to get any vaccines. Estonia, by being a member of the European Union, has followed the approved vaccines list of European Medicines Agency and has not sought out other ways of procuring additional vaccines, even if there have been delays of the vaccine shipments. Estonia benefitted from vaccine nationalism, due to European Union being one of the largest procurers of vaccines in the world. Japan has strict approval conditions for vaccines, which require domestic trials, in turn hinders the approval process of the vaccine. Canada, Estonia and Japan having all high democracy rates, have experienced vaccine approval, procurement and campaigning differently. But overall, the most important factors for vaccine approvals have been the safety and efficacy of the vaccines and transparency in clinical trials. In relation to each other, for Canada, the approval, procurement and vaccination campaign was

a fast and successful process, for Estonia it was a moderate and effective process, and for Japan, it was a slow, but successful process.

Hungary and Brazil have both had illiberal democratic tendencies after the elections of Orbán and Bolsonaro respectively. Hungary and Brazil have had instances, where the legitimacy and the transparency of vaccine trials and approval is under question. Flawed Democracy groups countries are most likely to procure vaccines from both private pharmaceutical countries and foreign state-owned companies. These countries have limited previous experience with private pharmaceutical companies and they do not have the resources to fund vaccine development, to subsequently receive vaccines ahead of other states. Most likely, the Flawed Democracy group is the importer part of vaccine diplomacy. Their partnerships with China and Russia have made it more likely to procure vaccines from their state-owned or controlled companies, when there was an absence of vaccines from private pharmaceutical companies. The procurement deals for vaccines from China and Russia were made during the time when there was not sufficient evidence on the safety and efficacy of the vaccines, but these countries were in a situation where infections were high and starting the vaccination campaign was important for the health of the society. Their flawed democracy levels also correlate how the governments acted in questionable and secretive ways in the approval process of foreign state-owned companies' vaccines, due to the lower standards of accountability. Hungary, like Estonia, is a member of the European Union, but did not follow the approved vaccines of the European Medicines Agency. Hungary has been an important country for China and Russia to export vaccines to, because by being successful in a member of the European Union, it shows to other members and the Western world their achievements. There have been alleged, that the Hungarian government approved the vaccines of Russian and Chinese origins, without the safe trails and available results. Hungary has also repressed the freedom of the press, by limiting the amount of information coming out of hospitals, a common characteristic of an illiberal regime. This either highlights the trust of the Hungarian government in foreign state-owned companies and/or the corrupt government agencies and/or the power of vaccine diplomacy of Russia and China. Indonesia and Brazil both have important economic partnership with China. For both of them, the first shipments were Sinovac's CoronaVac, when it was impossible to receive any private pharmaceutical companies' vaccines. Indonesia and Brazil were countries apart of the Phase 3 testing for the vaccine. A year after the first vaccines were administered in Brazil and Indonesia with vaccines of Russian and Chinese origins, most of the booster shots that are administered are by private pharmaceutical companies' vaccines, which are now more readily

available. The vaccine diplomacy of China especially was crucial for Brazil's and Indonesia's public health when they were not able to procure any other vaccines. This was not the case for Hungary, because they had access to private pharmaceutical company vaccines, even if there were delayed shipments. It is not known what happened during the negotiations or what was agreed upon in the contracts between China/Russia and these countries, how it will affect the future of the relations and business, how did China/Russia benefit from vaccine diplomacy, but it is important that these vaccines, when nothing else was available, saved lives.

China, Russia and Cuba are all authoritarian states and all of them have developed and produced their own vaccines. They have all fostered protectionist stance. None of these states have imported any of vaccines from private pharmaceuticals nor have they accepted any donated vaccines. These vaccines are point of nationalistic pride for these countries, for Russia and China exporting these vaccines to as many countries as possible, and for Cuba, which is hindered by embargos, to develop three successful vaccines. All of them struggled initially with vaccinating their own population, most reaching high vaccination rates during the second half of 2021. Firstly, Cuba prioritized vaccinating their own population and then secondly, to export vaccines to other countries. Russia and China acted in an opposite way: they made deals with other foreign states, when their vaccines were still in Phase 2 and not fully tested for safety and efficacy. According to the countries presented in this thesis, nondemocratic countries have exported vaccines to flawed democratic countries, but they have not imported from any other country, not even from other nondemocratic countries. Importing vaccines, that are developed by companies that originate from democratic countries, could endanger nondemocratic countries' narrative of democratic countries and create democratic diffusion. This is controlled by censoring the media and the internet. One of the main reasons, why democratic countries have not approved and imported any of nondemocratic countries vaccines, is the lack of transparency in clinical trials. This is common in authoritarian regimes, the lack of transparency of vaccine development, trials and repression of criticisms. Vaccines from nondemocratic countries are less unlikely to be approved by international health organizations.

Conclusion

The aim of the research was to understand, how countries with varying degrees of democracy acted during the Covid-19 pandemic in developing, manufacturing and procuring vaccines. The theory was based on understanding the notions of democracy, illiberalism and authoritarianism. Concluding with relevant topics on the interaction of health policy and diplomacy, vaccine diplomacy and vaccine nationalism. For the method, I used quantitative data to assign the level of democracy and for number of doses purchased, where it was possible. I categorized the chosen nine countries, based on their democracy levels. In the second part of the research, I used qualitative data, to describe the countries' vaccine development, manufacturing and procuring vaccines. Finally, I analysed the findings, which led to the following conclusions.

The Democratic group has outsourced vaccine development and manufacturing to private pharmaceutical companies. This is due to, private pharmaceutical companies being transparent of their vaccine clinical trials. Safety and efficacy of the vaccine is very important for democratic countries and to international and domestic medical agencies. Firstly, the Democratic group would not purchase vaccines from the Nondemocratic group's state-owned enterprises, because that would indicate support for said countries' governments. Secondly, they would not purchase vaccines from nondemocratic foreign state-owned enterprises, because of limited amount of safety and data on the clinical trials, therefore the safety and efficacy of the vaccines. Canada and the European Union have participated in vaccine nationalism, which affected Flawed Democracy group's countries to be the importer in vaccine diplomacy.

Flawed Democracy group was most likely to procure vaccines from both private pharmaceutical countries and foreign state-owned companies. Flawed Democracy group is the receiver part of vaccine diplomacy. Their partnerships with China and Russia have made it more likely to procure vaccines from their state-owned or state controlled companies, when there was an absence of vaccines from private pharmaceutical companies. This is due to lower standards in vaccine's clinical trials and on the safety and efficacy of the vaccine.

Nondemocratic group has all developed and produced their own vaccines. They have all fostered protectionist stance in importing vaccines. For Russia and China, developing and exporting vaccines via vaccine diplomacy has been a part of national pride and a higher priority

than first vaccinating their population. For Cuba, it was a priority to vaccinate their population first, due to restricted resources for vaccine development. Vaccines from nondemocratic countries are less likely to be approved by international health organizations, due the lack of transparency in vaccine's clinical trials.

Covid-19 pandemic tested states cooperation and diplomacy to control the outbreak of the virus. Further research could be conducted, when the Covid-19 pandemic has officially ended and there is additional information available about the negotiations between states about vaccine procurement. This thesis tried to find a relation between, how a democratic level of a state, is connected to how they procured vaccines for their public.

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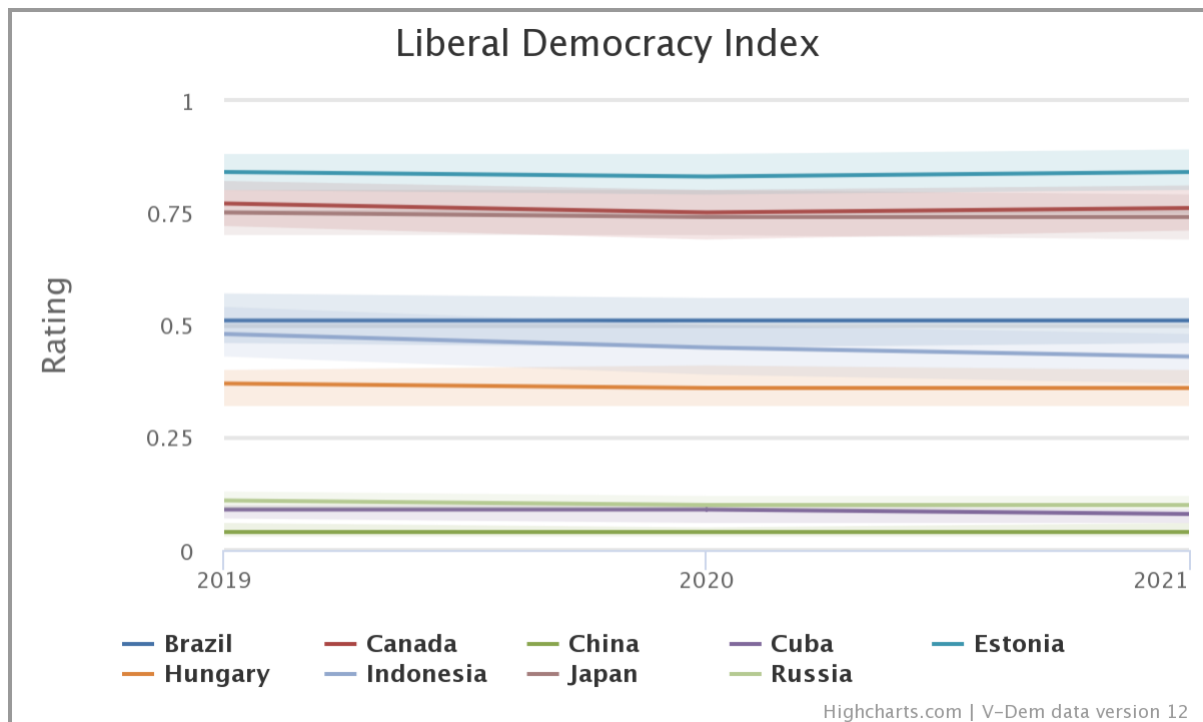
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Appendix

Graph 1.



V-Dem, graphic compiled by author.

Lihlitsents lõputöö reprodutseerimiseks ja lõputöö üldsusele kättesaadavaks tegemiseks

Mina, Sarah Francesca Kolts, (isikukood: 49806280228) annan Tartu Ülikoolile tasuta loa (lihlitsentsi) enda loodud teose “Political Regimes and Vaccine Procurement Policies During the Covid-19 Pandemic”, mille juhendaja on Andrey Makarychev,

- reprodutseerimiseks säilitamise ja üldsusele kättesaadavaks tegemise eesmärgil, sealhulgas digitaalarhiivi DSpace’is lisamise eesmärgil kuni autoriõiguse kehtivuse tähtaja lõppemiseni;
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