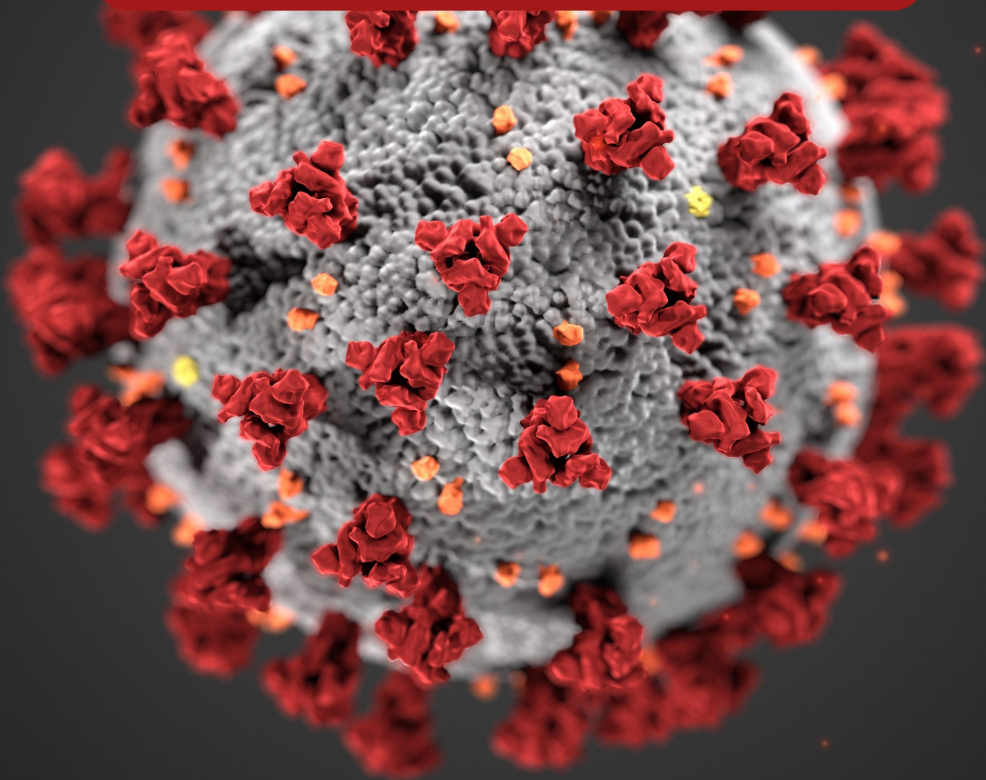


IMPACTS OF COVID-19 ON SOCIETIES AND ECONOMIES

M. Mustafa Erdoğan
Emilia Alaverdov
Armida Concepción García
Kateryna Tryma



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IMPACTS OF COVID-19 ON SOCIETIES AND ECONOMIES

M. Mustafa Erdoğdu, Emilia Alaverdov, Armida Concepción García, & Kateryna Tryma

INTRODUCTION

The current COVID-19 pandemic has come as a profound shock to our societies and economies as a black swan event. According to World Health Organization (WHO) figures, this is an unprecedented global health crisis, resulting in over 276 million confirmed cases and over 5,3 million deaths worldwide as of December 2021. The COVID-19 pandemic is not only a threat to public health. It is both a social and economic crisis that affects societies and economies at the core. So we have to look at it not only from economic but also from social and political perspectives.

The effects of the COVID-19 pandemic are serious, widespread, and are felt all around the world. Social distancing, self-isolation, and travel restrictions are expected to result in a declining workforce in several sectors. Millions of businesses are existentially threatened. Almost half of the world's 3.3 billion employees are threatened with a loss of livelihood. Tens of millions of people are at risk of extreme poverty and many can die of starvation. COVID-19 poses threats such as increasing inequality everywhere and undermines advances in global poverty and clean energy, and much more.

According to a multi-agency report estimate, around a tenth of the global population – up to 811 million people – were undernourished in 2020 as the pandemic disrupted economies, labor markets, and supply chains, and increased food prices. Disturbingly, hunger shot up in both absolute and proportional terms in 2020, outpacing population growth. Some 9.9 percent of all people are estimated to have been undernourished last year, up from 8.4 percent in 2019 (UNICEF, 2021). In this crisis, food safety, public health, and employment and labour issues, especially the health and safety of workers converge. Respecting occupational health and safety practices, ensuring access to decent work, and protecting

INTRODUCTION

workers' rights in all sectors are essential to address the human side of the crisis. COVID-19 simultaneously exposes structural inequalities in all areas.

Among those most affected are workers in the informal economy, young people, and women. Without the means to earn an income during the closures, many workers in the informal economy could not feed themselves and their families. Low and irregular incomes encourage many of them to continue working in often precarious conditions, thus putting themselves and their families at additional risks. Aside from the disease, the social, emotional, and spiritual wellbeing of many young adults is affected by the pandemic. Trauma at this stage of development can have long-term, life-span consequences.

Women are harder hit economically by the pandemic as they make up a large proportion of the workforce in sectors heavily affected by COVID-19, including lodging and catering services, as well as in frontline professions such as health and social care. With the closure of schools, they had to take on more care tasks at home. Whether from job losses or school closings, the pandemic threatens to undo decades of progress on gender equality.

COVID-19 has also slowed advances in clean energy, at least temporarily, by limiting investments and delaying the expansion of clean energy technologies. There was some positive climate news: global energy-related CO₂ emissions fell 5.8% in 2020, the biggest drop in global CO₂ emissions ever recorded. However, this is only a short-term effect of lockdowns, not a lasting change. In fact, emissions are projected to increase by 4.8% in 2021, the second-highest rate in history, as demand for coal, oil, and gas picks up with the economy.

The impact is felt unevenly in each society. Countries facing existing humanitarian crises or emergencies are particularly vulnerable to the effects of COVID-19. While no economy is spared, low- and middle-income countries are hit hardest as they have weak defenses against economic shocks and tend to rely more on a few sectors, such as raw materials and tourism. Rich countries were empowered to take early action to protect people and businesses, pumping \$ 9.8 trillion into their economies. But low- and middle-income countries have not been able to do the same.

An Oxfam report (2020) reviewed government measures to support people during the pandemic in 126 low- and middle-income countries and found that 97% of

support provided was insufficient to meet basic needs. In fact, 2.7 billion people have not received any public financial support to cope with the economic devastation caused by the coronavirus pandemic.

Economic recovery is likely to be uneven, leading to further inequality in the years to come. Assessing the impacts of the COVID-19 crisis on societies, economies and vulnerable groups is essential to inform and adjust government responses to recover from the crisis and ensure that no one is left behind in this effort (UNDP, 2021). This edited book aims to identify how the COVID-19 experience will change many economic and social dynamics and what can be done for a better World.

Impacts of COVID-19 on Societies and Economies compiles research on various challenging topics. The works are arranged in seventeen chapters.

In the first chapter entitled '*Economic Theory versus Economic Reality: Dealing with Pandemics and Other Public Goods and Bad*', **Vito Tanzi**, who is one of the greatest public finance economists, discusses how global public goods and "bads" should be dealt with. He calls attention to the fact that economic theory has generally focused on the domestic market and public goods have been assumed to be national public goods. However, the world has increasingly become more interlinked and what now happens in the rest of the world counts much more for what happens to specific countries, than it did in the past. Therefore, Tanzi suggests that traditional economic theory and world institutional architecture need to be modified to accommodate the new reality. In other words, global public goods or bads need to be dealt with globally.

In the second chapter entitled '*The political economy of COVID-19*', **Stavros D. Mavroudeas** questions the causes of the COVID-19 twin crisis (health and economic) if they are exogenous to the political economy of contemporary capitalism or they are endogenous? Mavroudeas argues that this twin crisis is caused by the 'metabolic rift' (capitalism's uncontrollable and insatiable commodification of nature) that leads to the modern 'emerging epidemics' of zoonoses. The system's attempts to cope with this crisis put the burden on the labouring class and attempt to create an even more dystopian future than the COVID-19 epidemic itself. He suggests that the task at hand is to repulse this dystopian capitalist 'new normality' and to open the path for a non-exploitative and equitable society of solidarity and the common good.

In the third chapter entitled '*The Media Life of the Pandemic and its Main Aspects*', **Marine Lomidze** reveals the experience of different countries in covering COVID-19 pandemic in the media. The main conclusion is that the world's media representatives can learn a lot from each other. Countries need to increase learning in emergency actions, such as the mechanism of joint activities of government structures and the importance of media representatives. In Georgia, people learned in this pandemic situation, that emergency circumstances harm people's consciousness and mood, thus contributing to the establishment of an unfavorable psycho-social environment (introduction of fear, panic, alarm). Inconsistent, unbalanced presentation of facts and biased assessments hinder the creation of a healthy environment, which negatively affects the behavior and attitudes of society.

In the fourth chapter entitled '*Democracy in the Conditions of the COVID-19 Pandemic - Autocracy Turns Viral: Case of Georgia*' **Madlena Kotsotsashvili** presents an interesting case and new information about the internal life of Georgia during the pandemic. The author deals with the negative impact of the pandemic on the global economy and which has a direct reflection on society. Especially, she highlights the existing challenges in Georgia, which is a severe political crisis that represents a potential risk to hold efficient democratic elections in term of state emergency.

In the fifth chapter entitled '*The Fourth Transformation in Mexico. Trapped between the Neoliberal Cage and the Impact of Covid-19*' **Rodolfo García Zamora** and **Selene Gaspar Olvera** analyze how the Mexican economy continues to be under the neoliberal model in the welfare modality and with austerity as a central feature despite the fact that the current president of Mexico, Andrés Manuel López Obrador, won the 2018 elections with an anti-neoliberal stand and a promise to promote a profound transformation of the economic, political, social, and institutional administration of the country, focusing on national sovereignty, internal market, equity, employment, and the well-being of the entire population. According to the authors, this promise became the prisoner of neoliberalism along with the health and economic impact of COVID-19.

In the sixth chapter entitled '*Working Harder or Happier? Home Office Adoption After COVID-19*' **Humberto Merritt** examines social and productive consequences of rapid home office adoption on workers' welfare by reviewing the pros and cons of teleworking as reported by some recent reports and surveys. In particular, the

author harnesses the large number of comments posted on the BBC web page regarding the impact of remote work on people's wellbeing between 1-2 March 2021. Merritt suggests that the COVID-19 pandemic has created the opportunity to devise the future of work and teleworking made the continuity of productive activities possible to the extent that moving paid work from the office to the home was feasible.

In the seventh chapter entitled '*COVID 19 Impacts on Employment levels in Europe and Bulgaria*' **Julia Dobрева** explores the impacts of the COVID-19 crisis in Europe in terms of employment implications and the relevant policy measures, which were introduced by EU governments to tackle the problem with unemployment levels. The author treats the primary economic measures taken by governments during the onset of the epidemic and discusses their major impact on the economic systems in Europe. In addition, Dobрева analyses the COVID-19 impacts on employment in Bulgaria and the relevant government measures. A major contribution of Dobрева is her comparison of the dynamics in employment levels during the financial and economic crisis in 2008-2010 and the ones during the onset of the COVID-19 pandemic in 2020.

In the eighth chapter entitled '*Germany, the Pandemic, and its "Social Market Economy"*' **Ali Erdem Bayülke** deals with the economic situation after crisis 2008 in Germany, the theory of ordoliberalism, and its outcomes. As well as it describes the opinions about the different approaches of ordoliberalism and neoliberalism and their influence on the social market economy and global labor competitiveness. He also touches on the economic crisis caused by the COVID-19, which is expressed in the rise of food prices. The chapter highlights the "National Industry Strategy 2030" as well and the plan of protection of national companies from the foreign management from the point of national security.

In the ninth chapter entitled '*The Greek Collective Bargaining System Before and Beyond the COVID-19 Pandemic: From Crisis to Crisis?*', **Ioannis Zisimopoulos** provides detailed information on the process of deterioration of the Greek collective bargaining system. The main objective of the chapter is to expose the nature of the collective bargaining system before, during, and beyond the pandemic period, examining the evolution of sectoral/occupational collective agreements during the period 2000-2020 in Greece, and the reduction of which would reveal the transition from a centralized to a decentralized collective bargaining system

that, in the words of the authors, accentuates their devaluation. With the use of statistical and graphical data, this chapter is an excellent contribution from which trends can be drawn, leaving open the possibility of exploring new scenarios going forward for other similar systems.

In the tenth chapter entitled '*Facing the Pandemic, After An Economic Epidemic: "Greek National Health System versus COVID-19"*' **Haris Poulakis** and **Thanos Poulakis** present valuable information about the Greek economic situation before and during the COVID-19 pandemic. For the authors, the coronavirus pandemic exposed the poor situation of the Greek National Health System, the impact of the health crisis, and how its effects accentuated the conditions of precariousness, lack of investment, and historical dismantling. The document makes a specific analysis of the Greek health system, and how the austerity policies established by the government affected household health spending, key health indicators, and citizens' access to health services. The data presented emphasize the need to strengthen health systems in order to comprehensively face the health crisis, whose effects are far from over.

In the eleventh chapter entitled '*Climate Change and Covid-19 Pandemic: What Measures Can We Take To Reduce Environmental Impact?*' **M. Mustafa Erdoğan** and **Sevda Akar** present the study of climate change and its influence on public health, causing world diseases and pandemics. However, the public and media perceive them as separate issues, neglecting their interdependence. The chapter shows the latest numbers of confirmed COVID-19 cases, deaths, and administered doses of vaccine. The work analyzes the causes of climate change and suggests certain ways to its reduction and solution and refers to the proper management of such issues as household and medical waste.

In the twelfth chapter entitled '*Nanotechnology and Covid: Technical Solutions in the Hunt for Inequality*', **Edgar Záyago Lau**, **Sein León Silva**, and **Roberto Soto Vázquez** deal with certain technical issues and social problems. The authors highlight the essence of nano-based vaccines and their inequality, and at the same time, they focus on the results of nanotechnology and nanomedicine. The authors state that vaccines are in the hands of transnational pharmaceutical corporations headquartered in the Global North and underline the subordination of social benefits with the historical-structural logic of capitalism, which is reflected

in the monopoly and price increasing, the control of distribution, and as well as in the advancement of nano-enabled COVID-19 vaccines and their benefits.

In the thirteenth chapter entitled '*Pandemic and Society - Changes and Challenges*', **Nana Bakhsoiliani** and **Nanuli Azikuri** examine the world's infectious diseases which emerge from time to time. The authors show their historical retrospect and the effect of vaccination to eradicate them. It happens that Georgia had a very effective folk medical method which is successfully used worldwide to fight the modern pandemic. Particularly the chapter speaks about the method of isolation and the effectiveness of vaccination

In the fourteenth chapter entitled '*Covid-19 Influence on Program Documents of Political Parties Participating in the 2020 Parliamentary Elections in Georgia*', **Manana Darchashvili** describes the contemporary world situation caused by the COVID-19 pandemic and highlights its negative outcomes in such sectors as the economy - tourism and education, and health challenges. Especially, the chapter points out the existing situation in Georgia in the pre-election period and shows the attitude of political parties toward it, based on their 2020 program documents.

In the fifteenth chapter entitled '*Fiscal simulation practices: The Textile Commerce Case in Mexico and its Challenges in the Face of the COVID-19 Pandemic*', **Armida Concepción García** describes the economic stimulus strategies of textile products purchase processes in Mexico. The author attempts to understand the countries growing informal economy and highlights the problem of tax informality and suggests certain regulations. As well as the work points out the sanitary emergency in textile commerce during the pandemic and discusses possible solutions.

In the sixteenth chapter entitled '*Forecasting the Number of COVID-19 Patients in Turkey Using Nonlinear Autoregressive Neural Networks*', **Tuncer Özdiş** and **Mehmet Dinç** identify a prediction model for the number of COVID-19 patients in Turkey according to daily positive case numbers during the post-vaccination period based on the results of a monthly estimation model using certain Non-Linear Autoregressive Neural Network. The authors predict the future scenario and give numbers based on neural network forecasting models of artificial intelligence, thus proving the efficiency of the mentioned models.

In the seventeenth chapter entitled '*How Innovative Can Government be through the Use of ICT? The Case Study of Azerbaijan*', **Hakim Alasgarov** studies the reforms

of Azerbaijan public service administration and analyses their effectiveness and transparency. The author points out its advantages, which are expressed in the convenience and time-saving process since several public services are located under one roof and have a “one-stop-shop” model. The work explains the role of international organizations in public administration reforms and financial management, and private sector development and its procurement.

We believe these chapters will generate ideas for future research efforts as well as to identify how the COVID-19 experience will change many economic and social dynamics and what can be done for a better World.

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ECONOMIC THEORY VERSUS ECONOMIC REALITY: DEALING WITH PANDEMICS AND OTHER PUBLIC GOODS AND BADS

Vito Tanzi

Abstract

This chapter calls attention to the fact that economic theory, both as related to the role of government and that of the market, has generally focused on the domestic market and a country's citizens. Public goods have been assumed to be national public goods. However, the world has become more interlinked and what happens in, or to, the "rest of the world" has become more important. The appearance of global public goods and public "bads" has become obvious during the ongoing pandemics. Global public goods or bads can only be dealt with globally. It is argued that traditional economic theory and world institutional architecture need to be modified to accommodate the new reality.

Keywords: Global public goods, global public bads, economic theory

1. Introduction

Taxation and public spending have been traditionally the major policy instruments used by governments to promote collective, nation-wide, goals. And national governments have been the institutions through which countries' citizens pursue, or should pursue, their *collective* needs. Of course, it is not easy, in practice, to determine with precision what a country's collective needs are, in general, at a given time; and especially to determine the size of the public resources necessary to finance their provision. One of the reasons is that some governments are more efficient than others in promoting their operations, and some populations are more community-oriented and more explicit on what they want than other populations. Also as Kenneth Arrow and Amartya Sen theorized many years ago,

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it is difficult to aggregate the preferences of different individuals. At sometimes there may be specific collective needs that are strongly felt. Good health is clearly one of them, especially during pandemics.

In *democratic* countries that operate with *market* economies, the usual assumption has been that requests for general, collective needs are determined through the democratic process, generally through elections. That determination will suggest a desirable level of taxation and public spending. Therefore, at least in theory, free elections should be able to indicate to the governments the resources needed and also how the public spending should be allocated among the country's citizens and needs.

In the real world, there will always be some individuals, or some groups, who will think that, whatever the tax level is, it is too high; and others who think that it is too low. Still, others may think that the taxes and the spending are not being used fairly. Given the collective needs, the more efficient is the public sector in its operations, the fewer taxes and other policies a country will require, to satisfy its collective needs.

There are today some vocal economists, and also some politicians, who recommend the use of more public borrowing, rather than taxes, to finance public spending. This relatively recent view argues that the use of public debt will lead to more economic activity and employment, without creating negative and significant, long run consequences, as major economists of the past (David Hume, Adam Smith and others) traditionally had assumed that it would. Many present economists continue to share that traditional view.

The public finance theory has assumed that the needs and the resources to satisfy them are strictly those of the *nation and its country's citizens*. Foreigners are not part of the determination of the collective goods needed, and only the interests of the countries' citizens count. Public finance theorizing has, traditionally, been organized along *national* lines (see, for example, Musgrave (1959), or Rosen, many editions. However see also Musgrave and Musgrave (2003), for a later view. If there had been some debate, it has been related to the extent *sub-national* government within countries should play a role, in reflecting collective national needs, because within a country the interests of different regions may diverge. This gave rise to the enormous and growing literature on fiscal federalism.

However, the needs of the citizens of other countries were still assumed not to count. There has been no fiscal federalism at the global level.

With the passing of time: (a) many activities have become less localized, more globalized, and more globally interconnected than in the past ; (b) some needs and their provision have become multinational, or even global; and (c) some public goods and public “bads”, that had traditionally been strictly *national*, have acquired global characteristics. The result is that what now happens in the rest of the world counts much more for what happens to specific countries than it did in the past.

Just think of pandemic and global warming, and their global and country-specific impact. This means that the traditional concept of collective interest, as being strictly the summation of the exclusive interests of a countries’ citizens, has become increasingly anachronistic, especially in some circumstances, which have become increasingly more frequent, including pandemics. There are, now, some public goods and public “bads” that have acquired clearly multi-national or global dimensions, and that cannot, any longer, be dealt with, with strictly national policies (Musgrave & Musgrave, 2003). This means that the traditional theory of public finance, and to some aspect that of competitive markets must be adjusted to the new reality. It must acquire a more global dimension, as some writing over past years had argued (See Tanzi 1995, 1998, 2003, 2006; Kaul *et al.* 2003; Kaul and Conceicao 2006, and the recent article by Bucholtz and Sandler, 2021).

Events such as pandemics, climate change, cross-countries migration, money laundering and tax evasion, cybercrimes and other multi-country crimes, over-fishing of the oceans, and others, have become too important “public bads” to be ignored. They must become integral parts of current economic and public finance theory but are not. The rise in the importance of global events has made evident the need for significant changes in the scope of economic theory. However, much theorizing has remained strictly national and has not expanded to incorporate these global events and developments.

Of related interest is that the world political or institutional architecture has also not changed, to incorporate this new reality. Most *enforceable* economic decisions have remained strictly national, creating some difficulties that have become increasingly evident in the current pandemic and also in relation to what to do about global warming. From these events, it has become clear that strictly

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national policies are not sufficient or effective to deal with them. These national policies cannot be optimal.

Over the last century, views about taxation and public spending changed significantly in some ways. Also, views changed about what the desirable government role, within *national* economies, should be. Broadly speaking and recognizing the existence of strong opposition that has continued to come from libertarian and conservative individuals and groups, the desirable government role, still *within a country*, came to include (a) the need to *redistribute* some income and wealth from richer to poorer citizens, when the distribution generated by the market and by the existing national rules, was considered too uneven, and (b) attempts by national governments to promote, with their policies, full, or fuller, employment of labor and capital in the country, especially during business cycles.

These changes were still limited to single countries. They were not extended to the larger world. The policies remained *national*, and the main goal remained that of increasing the welfare *of the citizens of a country*. The rest of the world continued to be largely ignored by the theory (though increasingly less by the practice). The implicit assumption remained that the rest of the world did not exist or, if it did, it did not matter much.

An additional characteristic and perhaps shortcoming of the traditional theorizing was that the policies that were considered desirable were not only *domestically oriented* but were also policies good for *normal* times. The desired policies were focused on immediate needs. They largely ignored potential, but *future events that were still uncertain*, events the probability of which could not be statistically determined at a given time, even though they had some realistic possibility of happening at some unspecified but not at a far too distant future time.

Random disasters and other possible, bad events, such as the coming of pandemics, famines and others, have continued to be ignored by the current theorizing and by the policies, even though such events had been experienced in the past, and were likely to be experienced again in the future within the lifespan of many citizens.

Wars did, occasionally, create *exceptional* circumstances for countries. During wars, the tax levels of the warring countries were pushed up, to finance the military spending, and to avoid the creation of high public debt. In peaceful times the tax level and the tax structures were expected to be returned to normal levels

and to be consistent with the needs of the national economy *in normal times*. National policies were biased toward winning the next elections. The taxes used were expected to be *efficient* and *sufficient* to satisfy the *routine and immediate* needs of the *national* citizens.

The above has been, in essence, the guiding theoretical principles of market economies, in countries that are democratic, even though the practice may not have always followed the theory. The principles have largely continued to ignore *global* developments, except for their direct impact on the national economy. Given those principles, governments have been expected to keep the tax levels as low as possible and the regulations limited, and to focus public spending toward satisfying the immediate, short-run, needs of the country's citizens.

Future but *uncertain* events, as compared with *risky* ones, have not attracted as much attention in the theory as they should have. A government that would spend much money to be better prepared *for needs that might be created by events that are uncertain and future*, or for needs that were seen to be global, rather than strictly national, such as those imposed by possible future pandemics and climate change, would likely pay some political price in the elections.

Consider now the behavior of private enterprises operating in competitive markets. They must minimize the cost of labor and capital and must keep inventories low, in order to remain competitive. They cannot give much thought, or pay much attention, to events that are *future* and *uncertain*, such as pandemics and major natural disasters that might never materialize. Some of these events might have a global character. The enterprises would continue to focus on the short run and on normal developments to continue to be competitive (See Tanzi, 2021).

2. Dealing with the Unpredictable

Normally future difficulties that may be created by major catastrophes, including pandemics, have been considered "Acts of God". The possibility of their coming is often ignored. These possible, future crises have the characteristic of being impossible to predict statistically, with respect to both their *timing* and their *severity*. This makes them different from risky events, which are statistically predictable. Because of this, they often do not make governments and private enterprises change their normal behavior, until the events actually happen. The *timing* of pandemics and of major hurricanes and earthquakes, cannot be predicted. Neither

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can their *severity*. Unfortunately, major disasters are and have been a fact of life and the fact that they cannot be anticipated statistically does not mean that they will never materialize. It also does not imply that some planning could not be made for their eventual coming.

Over historical times there have been several, major pandemics, including truly major ones, such as the Black Plague of 1346-1352 in Europe, which killed at least a third of the European population, and the Spanish Flu of 1918-1919, that killed more people than had died during the First World War. There have been other major natural disasters (hurricanes, floods, earthquakes, volcanic eruptions and others) that have caused many deaths and major disruptions (See Tanzi, forthcoming).

Some of these disasters happened in the distant past, at times when the role of governments and their capacity to act were very limited. When the disasters actually came, few citizens could have expected the governments to be able to do much. Now governments have much more capacity to act, and they may also have more information and better tools to predict. Wars had been in a different category. They could not be considered “Acts of God”, and, to some extent, they could be anticipated.

In recent decades, *business cycles*, which included the Great Depression of the 1930s and the Great Recession of 2008-9, attracted the attention of economists and governments. They also led to expectations that some policies could be adopted to fight them when they came, and even, in anticipation of their coming, in order to reduce their intensity and their impact. This led to the Keynesian Revolution, which called on governments to increase spending during recessions and to finance the higher spending with fiscal deficits. It also called for permanently-higher public spending, and for the use of *built-in stabilizers*, to automatically reduce the severity of recessions.

Countercyclical fiscal policy may have been the first call on governments to deal, *on a permanent basis*, with *economic* crises, crises that seemed to arrive with more regularity than *natural* ones (See Solimano, 2020). However, the policy call was still for the individual response by single countries, it was not for coordinated actions by several countries. However, increasingly there have been calls, at the political and also at the professional levels, to have globally coordinated responses

by country groups, by the G20, the European Union, and others, and also some professional discussions of these possibilities (See Tanzi, 1996).

There were *no* similar calls to prepare for and to deal with eventual, natural catastrophes including pandemics. The randomness of the latter, in both time and severity, discouraged these calls. The way economies and governments operate, in democratic, market economies, does not encourage governments and private enterprises to adopt policies or to take actions, in normal times, that would make it easier for them to deal with the catastrophes when they eventually came (See Tanzi, 2020). This preparation might involve more spending, by governments for infrastructures or for hospital beds, more regulations to make buildings safer against floods and earthquakes, policies to make energy greener, more retention of profits, as precautionary balances, by private enterprises and others. It would also require some formal classification of future uncertain events, to see whether some are more likely to occur than others even though they still remain “uncertain “ in the Frank Knight definition, and have not become traditional, measurable risks (Knight, 1921).

There would be costs and some difficulties with these policies. For governments, there would not be many political advantages, and only political costs in spending money, because the benefits, if any, would be seen later, and, at times, much later, while the costs in higher taxes, or in more strict regulations, would be felt immediately by the citizens.

The frequency of political elections, (that makes the relevant time horizon of governments short), and the political pressures to keep public spending and tax levels low, would often discourage *democratic* governments from allocating significant resources to provide better protection against future, uncertain events. A government that invested large resources in trying to protect a country’s citizens against such events, would be criticized for wasting taxpayers’ money. Uncertainty would play against future security.

To some extent, governments have relied on regulations, more than on spending, to promote better safety against some such events. For example, in areas subject to earthquakes, such as California or Japan, they have strengthened building codes which, by increasing the cost of housing, have at times led to criticism.

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On the side of the private sector, the forces of competition promote actions or behavior that do not help in dealing with uncertain, catastrophic events or even with recessions, that may affect them more directly. Private enterprises, operating in competitive markets, face strong incentives to keep their costs low. They do so by squeezing their real wages, minimizing their workforces, and keeping inventories down.

The CEOs of corporations have incentives to distribute the corporate profits to their shareholders or to use the profits to buy the shares of their own corporations. These actions help keep shareholders happy and to justify the CEOs' high compensation packages. They also reduce the taxes that the owners of the corporations pay on their corporate earnings, because of the non-taxation of unrealized capital gains and the often lower tax rates on realized gains.

Corporations are also encouraged to make greater use of debt, to finance their investments, or even to buy their own shares. The deductibility of the interest paid on the debt, in the calculation of taxable profits, makes this policy attractive. When the cost of borrowing is kept low by central banks' policies, as it has been kept in recent years, these incentives are also stimulated, leading to high shares of private debt and to lower tax revenue.

These and other actions contribute to conditions that make corporations more vulnerable to crises when the crises come. If the corporations are "too big to fail" they can hope that the government will come to their rescue in case of crisis, as happened to some of them during the Great Recession of 2009-10. The workers are the ones who often bear the major costs, because they lose their jobs, their incomes and, in countries such as the USA, even their (employment-linked) health insurance.

The above observations move the focus from what governments and enterprises should have done but did not do, in anticipation of random but possible dangerous events, including pandemics and, increasingly, climate change, to what they should do, when they are faced with events such as pandemics and others that may become more frequent in future years. This question is addressed in the following two sections, with special reference to the current pandemic and to global warming.

A first obvious observation concerning governments is that, when major disasters are realistic future possibilities, even though their probability distribution cannot be measured statistically, as it can for normal risky events, it would always be wise for governments to keep some space in their fiscal accounts so that it would be easier for them to step in with additional spending when the time to do so comes. A government that is already burdened by high debt, and is already relying on high and bad taxes, will have fewer degrees of freedom to act, than one that has low debt and more fiscal space. *Initial fiscal conditions* do matter and remain important.

The above conclusion might be questioned by those economists who have complained about what they have called “austerity policies”, policies presumably followed by governments and considered too “austere”, even when the public spendings, the public debts, and the fiscal deficits had been already high. It is also an argument against those who believe that there is almost no limit to what governments can borrow, as long as the borrowing is in the country’s own currency. The reason given is that the growth rate of the economy is likely to exceed in the future the cost of borrowing. Some believe also that Inflation is no longer a present or future problem, regardless of the level of public debt.

Similar observations can be made concerning the behavior of private enterprises. In this context, the behavior of American and Japanese enterprises may be of some interest. In good times, Japanese enterprises tend to retain larger shares of their current profits. They use them to retain their workforce during less favorable times. American companies do not. In bad times the latter lay off their workers. The consequence is that unemployment fluctuates less in Japan than in the USA.

Most workers depend on their wages for their purchasing power. When they lose their jobs, they remain without income. On the other hand, shareholders of corporations normally have some or much accumulated wealth to fall on. They allocate their total wealth on the shares of different corporations. Thus they “spread their eggs in many baskets”. The poor performance of a single or of some enterprises does not affect the total purchasing power of rich shareholders as much as the loss of their jobs does that of workers. Furthermore, generally, the tax treatment of capital income tends to be lighter than that of wage income.

3. Taxation in Times of Pandemics

Let us now come more directly to the use of taxes in times of crisis, starting with some observations that are largely based on the US experience. During the ongoing Covid-19 pandemic, employment collapsed and millions of workers lost their jobs because both the demand for and the supply of many goods and services was reduced by the pandemic. Many of the workers who lost their jobs did not have money saved on which they could depend. Unemployment claims rose sharply and have remained high in many countries. In spite of recent improvements, and optimistic official forecasts, the long-run, future impact of the pandemic on the world economy remains uncertain. The situation has improved in some countries and has worsened in others. Consumer confidence has continued to be low, global trade has been negatively affected, and public debts have soared and are continuing to grow, raising concerns about the future fiscal sustainability of various countries. Some activities have been affected more than others.

The remarkable thing about the present situation is that the stock market, in the USA and in other countries, has been doing very well, in spite of the pandemic. The current level of the US stock market is at a historical high, making many rich individuals even richer. This disconnect between what has been happening to the real economy and to many workers, especially to workers in so-called “essential occupations”, and to the well to do is strange and somewhat worrisome. Million dollars compensations have continued to be paid to the CEOs of corporations, even in some enterprises that have lost money.

The reasons for the disconnect may be largely two: first, the changes in tax policy that had taken place in recent decades, and, second, the monetary policies that have been followed in recent years. Over recent decades, the share of total income and wealth received or owned by a small minority of the population (1.0 or the 0.1 percent) increased remarkably and was taxed at lower rates. This minority has been the beneficiary of past economic growth. These are largely the same individuals who have continued to benefit from the current stock market boom. This may have been Pareto Optimal, if the remaining 99 percent of the population did not experience an absolute fall in income, but it could not have been considered desirable, from a distributional or utilitarian point of view.

In spite of the popular belief, commonly held, about the benefits of using crises to make major policy changes, major crises may not be the best of times to make

these changes. During crises, it may generally be better to focus on the immediate needs of the majority of the citizens and to leave more fundamental and permanent reforms to better and normal times. During major crises, such as pandemics or major recessions, the important, immediate need to satisfy should be that of protecting the standards of living of individuals who have lost their jobs, and who did not have saved assets to sustain them. These should be the individuals to be helped by the government's assistance.

The assistance could be financed partly by public debt and partly by increasing taxes on those best able to pay them. These additional revenues could come from taxes on high incomes, on high wealth, or from "Tobin taxes", taxes on the exchange of shares in the market, in countries that have well-developed stock markets. These special taxes, imposed to assist those in difficulties, because of the pandemic or the recessions, would be *temporary* ones. They would last for the period of the pandemic or the crisis. They would make the individuals with high income and high wealth share in some of the costs of the pandemics giving more legitimacy to the existing economic system.

Central banks should pay attention to the distributional, or equity, aspects of their monetary policies. They have paid little or no attention to those aspects, assuming that distributional aspects are not part of their mandate, or that, by promoting economic activity with low rates, they were helping everyone, which was not often the case. Over the years, monetary policy has become progressively less distinguishable from fiscal policies, in their real and distributional effects. Like fiscal policies, they have been importantly affecting the income distribution, and not in a desirable direction.

4. Economic Theory and the Globalization of Public Goods

Economic theory and economic policy have continued to assume that economic needs are essentially *national*, whether they are individual or collective. The national governments are expected to deal with those needs at the *national* level. However, in a world that has become increasingly interconnected, many needs have acquired global dimensions. To deal with them has increasingly required global responses. Economic theory and policies have not yet fully caught up to this important change.

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Take for example the experience with the Covid-19 pandemic. This has been a truly global pandemic, one that has affected all countries. The virus has not respected national borders and the fight against it should have been a global fight, but it has not been. The actions by individual countries, such as the use of vaccination and masks, have helped the population of the particular countries that have used them. However, as long as the pandemic continues to exist in other countries (India, Brazil, Mexico, Peru, etc.) the problem remains a problem for all countries. No country will be completely safe until all countries are safe and global actions, such as the sharing of vaccines should have been taken.

The same is the case with man-created global warming that, in different ways and to a different extent, is affecting the whole world. Once again, the actions of single countries, especially large ones, such as China, India and the USA, can help to slow it down, but, to truly eliminate the danger, most countries must collaborate and act together. There should not be a scope for “free riders”. There are many other public goods, or public “bads”, besides pandemics and global warming, that share similar characteristics. The reality is that many problems and some solutions to them have become global, while the power to act has remained at the national governments’ level.

The institutional, political architecture of the world has remained national and has become increasingly anachronistic. It is an architecture still based on the institutions of many (at least 200) national governments. That architecture often encourages free-riding and actions by national governments that are often contrary to what is needed as the global public interests, or, if they are, are far from sufficient.

It may be time to realize that the world increasingly needs some truly global architecture, one that in an ideal world could be provided by a world government. This however is an unlikely prospect any time soon, as powerful national governments would oppose its creation.

More realistic alternatives should be suggested by clever political scientists and economists. One possible option could be to create more powerful international institutions that would act as proxies for a non-existing world government. This had been the dream of some thinkers (Einstein, Gandhi, Churchill and others after World War Two), with the creation of the UN, the Bretton Woods Institutions, and many others.

Unfortunately, the power of these institutions, including the UN, has been diluted over the years. Without a truly global architecture, the world risks facing increasingly dangerous events, without clear solutions. Global warming is clearly one of them (See Tanzi, forthcoming).

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‘THE POLITICAL ECONOMY OF THE COVID-19 PANDEMIC’

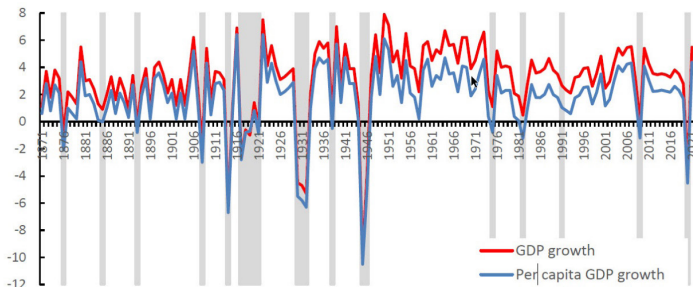
Stavros D. Mavroudeas

Abstract

The COVID-19 epidemic has triggered a twin (health and economic) crisis. The health crisis is caused by the ‘metabolic rift’ (capitalism’s uncontrollable and insatiable commodification of nature) that leads to the modern ‘emerging epidemics’ of zoonoses. The economic crisis was already simmering – as the 2008 global capitalist crisis of overaccumulation was not fully resolved. The lockdowns implemented for stopping the pandemic triggered the eruption of the economic crisis and aggravated its evolution. The pandemic poses serious dilemmas to economic policy, especially concerning which aspect (health or economic crisis) has priority. Different socio-economic systems cope differently with such problems. Socialist economies and/or economies with a robust public sector can confront better such crises.

I. Introduction

Today, the world is in the grips of the COVID-19 pandemic resulting in a huge health crisis. The latter went hand-in-hand with a global economic recession in 2020, which was the deepest since the end of World War II (Yeyati & Filippini, 2021, p. 1).



Sources: Bolt et al. (2018), Kose, Sugawara, and Terrones (2019, 2020), and IMF-WEO Apr-2021. Shaded areas refer to global recessions.

Even nowadays, after the invention of vaccines and the implementation of huge supportive economic policies, the recovery is rather unconvincing. Mainstream organisations (IMF, OECD etc.) forecast a robust recovery in 2021 and 2022 that will more than cover the GDP loss of 2020. However, subsequent new waves of the pandemic together with the deep disruptions in the world economy's structure cast doubts on these forecasts. Thus, the recovery is rather slow and the repercussions of the crisis are long-lasting. Hence, the COVID-10 pandemic marks a **twin crisis**: both health and economic.

This paper analyses the political economy of the COVID-19 pandemic and, more specifically, it addresses three issues. The next section contemplates the issue of the causality between the health and economic crisis. They are obviously intertwined; but are how are they related? And more specifically, is the health crisis the cause or just the excuse of the economic crisis? Moreover, are the causes of the health crisis exogenous to the political economy of contemporary capitalism or they are endogenous?

The third section considers the issue of the public policy dilemmas that emerged during this twin crisis. These dilemmas are basically two. First, if the confronting the health crisis should take priority over confronting the economic crisis or vice versus. Second, which social class will carry the major burden of this twin crisis. Furthermore, in this section it is compared the ability of a socialist economy to confront these issues with that of a capitalist economy.

The last section concludes by analysing the state of the art of economic analysis and economic policy at least in the West. More specifically, it ponders whether Neoliberalism remains the contemporary Orthodoxy or if it has already been succeeded by Social-Liberalism which is a different version of Neoconservatism.

II. The causality and endogeneity of the COVID-19 twin crisis

Different schools of economic thought interpret differently the relationship and the causality between the two aspects of the COVID-19 twin crisis. Orthodox, Heterodox and Marxist currents analyse differently (a) the relation of the COVID-19 pandemic with capital accumulation (whether they are related or not) and, subsequently, (b) the causality between the health and economic crises.

Orthodox and Heterodox economics

The dominant Mainstream (or Orthodox) economics – in all their variants – argue that it is the health crisis that caused the economic crisis. Thus, they consider

the health crisis as a ‘black swan’ event, that is an exogenous shock to the economy (e.g. El Erian (2020)). This implies that the eruption of the pandemic had no relationship whatsoever to the economy.

Health crisis —————> Economic crisis

Characteristically, all major international economic organizations considered that the world economy is advancing on a growth path without the danger of a recession (e.g., in January 2020 the IMF forecasted that the world economy will grow from 2.9% in 2019 to 3.3% in 2020). When the COVID-19 pandemic erupted they considered it an abnormal and chance event that derailed the world economy and led it to a slump.

This interpretation is not surprising since the contemporary Orthodox economics (and the Neoclassical tradition diachronically) maintain that the capitalist system is a perfect system that does not permit disequilibria and economic crises. The latter can only occur due to exogenous factors that disrupt the system’s perfect *modus operandi*.

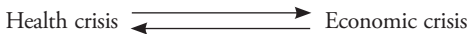
This thesis is accepted by the Neoliberal approach but also by the Social-Liberal approach of the New Keynesian *New Macroeconomic Consensus*. The New Macro Consensus has gradually succeeded at the end of the 20th century Neoliberalism after the latter failed to address the long-standing problems of capitalist accumulation. Its dominance became stronger after the global crisis of 2008, which largely sealed the failure of Neoliberalism. The New Macroeconomic Consensus combines New Keynesianism (which recognizes the possibility of short-term imbalances due to rigidities in some markets) with elements of Neoliberalism (rational expectations, long-term market equilibrium). The New Macroeconomic Consensus, in contrast to Neoliberalism, believes that short-term imbalances require state economic intervention. It argues that there is a need for a more strategic economic role for the state as opposed to the traditional Keynesian interventionist state and the Neoliberal dogma of the state’s complete withdrawal from the economy. In this context, it considers that monetary policy is the main economic tool in the short-run, while fiscal policy has a supporting role. But gradually, after the crisis in 2008 and with the coming today’s recession, the role of fiscal policy is constantly being upgraded. In addition, the need for a vertical and discrete industrial policy is recognized.

The contemporary Heterodox economics (comprising of the post-Keynesian, Institutional and Radical Political Economy approaches) share to a great extent

the Mainstream argument about the relationship and the causality between the health and the economic crisis in the case of the COVID-19 pandemic. These currents - although in general they reject the Orthodox 'capitalism is a perfect system' thesis - they accept that the COVID-19 is an exogenous shock which is not related to capital accumulation and only affect it afterwards.

Marxist Political Economy

The Marxist Political Economy proposes a more sophisticated and realistic analysis. It argues that the economic crisis was already simmering (irrespective of the eruption of the COVID-19 pandemic). The COVID-19 pandemic, first, triggered the eruption of the economic crisis and, second, aggravated it. Thus, in the case of the COVID-19 pandemic, the two aspects of the twin crisis (health and economic) went hand-in-hand and were mutually reinforcing. Thus, there not a one-way causality but rather a two-way interrelationship:



There is strong empirical evidence corroborating the Marxist argument. The US NBER reported that the US economy was entering recession in February 2020, before being hit by the COVID-19 epidemic and the subsequent lockdowns. Additionally, the manufacturing sector's indicators for most of the Western developed economies exhibited a strong deteriorating tendency before the eruption of the health crisis.

The explanation of this simmering of the economic crisis before the eruption of the pandemic is the following. The 2008 global crisis was caused by the declining capitalist profitability and the consequent overaccumulation of capital, i.e., the accumulation of excess capital that could not be sufficiently profitably invested (Carchedi & Roberts, 2018). The crisis had been preceded by a period of economic euphoria that relied heavily on the operation of fictitious capital¹. The capitalist system has attempted to overcome this crisis by abandoning the neoliberal dogma that the market is self-equilibrating and by resorting to state interventionism. The latter has been manifested through both loose monetary policy (i.e., lowering interest rates and increasing money supply) and expansive fiscal policy (i.e., increasing public spending and investment). The second was sharply curtailed after the crisis was over and fiscal austerity returned as budget deficits (in order

1 Fictitious capital is essentially a bet on future profits that it is being discounted today (for a more detailed analysis see Mavroudeas and Papadatos (2018)). These bets are subject to intra-capitalist trading and, in conjunction with credit money, can engineer periods of exorbitant economic expectations and increased accumulation. If these bets succeed, then capital accumulation proceeds normally. But if the real economy does not fulfill them, then economic crises arise.

to support capitalist profitability) had soared. Loose monetary policy has continued to this day but it has exhausted its potential. Thus, after the practical zeroing of interest rates, the unorthodox monetary policies (quantitative easing, etc.) began and when they were exhausted, the negative interest rates were adopted. The result was a completely paradoxical situation where debt (public and private) was rising while stock markets were constantly rising (*i.e.*, expectations for better future economic returns or, in Marxist terms, for increased extraction of surplus-value and hence profits). However, the real economy was unable to fulfill this bet. Typically, the industrial sector – that is the heart of productive activities – was already in recession long before the pandemic broke out.

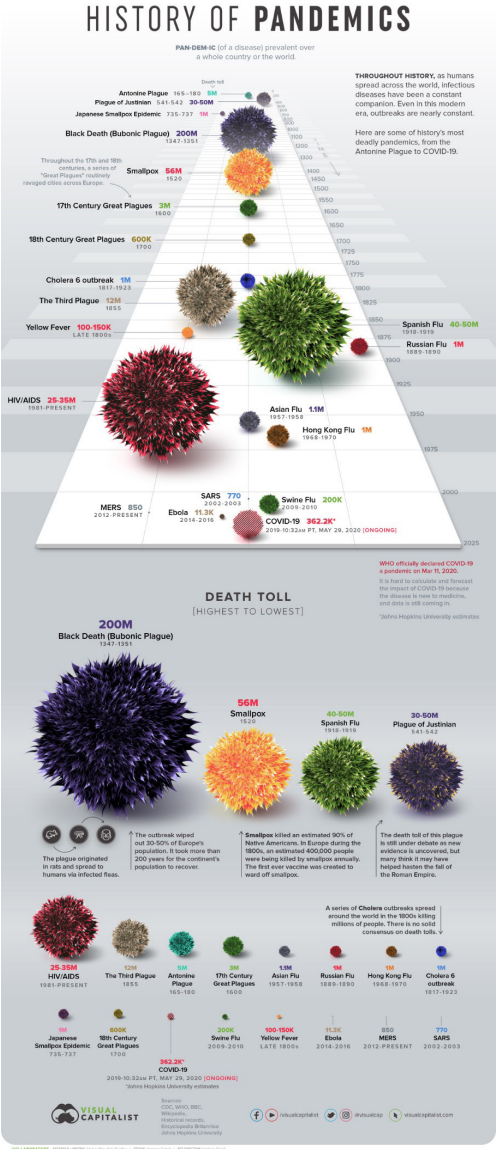
The pandemic was the reason for the explosive emergence of all these pre-existing problems. The reasons are obvious. The massive and uncontrolled loss of human lives reduces the workforce and has a negative impact on both production and consumption. In addition, measures to tackle the pandemic have serious economic implications. Particularly the so-called ‘social distancing’, traffic prohibitions and the consequent lockdowns or the operation significantly below capacity of much of the economy have obvious negative consequences. But, as already stated above, the Marxist Political Economy considers the health crisis as endogenous to capital accumulation. Thus, it considers it a product of the normal operation of capitalist accumulation and not an abnormal chance effect.

Marxist Political Economy approaches environmental crises and their repercussions on human health (hence certain types of health crises) on the basis of the very apposite Marxian thesis of capitalism’s ‘metabolic rift’. Marx has argued that capitalism worsens drastically the human-nature relations as it blindly promotes the commodification and exploitation of the latter, ignoring natural limitations and social consequences. This thesis does not imply accepting various outrageous ecological views on the return to nature and de-growth, which ignore the fact that (a) all human socio-economic systems intervene and metabolize nature and also that (b) this metabolism is necessary for ensuring even the basic survival of large sections of the human population. But it does mean that capitalism is uncontrollably expanding this metabolism as its central motive is the profitability of capital, which operates with a blind logic (*‘après moi le deluge’*: I do not care about the system’s survival so long as I get my profit).

Since the 1980s there is a marked increase of epidemics. These go against the dominant belief during the middle of the 20th century that advances in medicine have made epidemics obsolete. These *new emerging epidemics* are mainly zoonoses: that is they are caused by the transmission of viruses from animals to humans.

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These new emerging epidemics are caused by the following factors. First, the uncontrolled growth of industrial agriculture has led to the use of problematic hygienic methods that, however, enhance capitalist profitability and has already caused significant problems (*e.g.*, salmonella, Creutzfeldt-Jakob disease).

Second, due to the internationalization of capital (the so-called 'globalization'), increasing competition internationally imposes the dominance of these production methods as they involve lower costs.

Third, the uncontrolled growth of the capitalist agro-industrial complex dramatically limits virgin areas and brings humanity into contact with diseases and viruses that were previously restricted there and concerned small indigenous communities. The latter had either acquired relative immunity to them or the epidemics were limited to these communities and did not spread significantly.

Fourth, the internationalization of capital with the proliferation of transport and communication routes between remote areas of the world facilitates the rapid transmission of epidemics throughout the world, while in the past was more limited and therefore more controllable.

Fifth, the commodification of the use and consumption of exotic species enhances zoonotic diseases.

Most of these new epidemics (a) do not have strict class barriers but (b) have class asymmetric effects. They do not have strict class barriers because they are transmitted through consumer goods (in the diet) and social gathering. Therefore, classical methods of class segregation cannot be easily applied (*e.g.*, 'letting the plebeians die in their ghettos'). However, they have asymmetric effects as workers are more exposed to infections (*e.g.*, 'front-line workers'), have more unhealthy working and living conditions (*e.g.*, buying cheaper and of worse quality consumer products) and of course inferior health care.

The neoconservative capitalist restructuring of the past four decades weakened the public universal health systems as it has privatized (mostly indirectly) parts of them and their functions, reduced their funding and strengthened the private health sector. But the public universal health system is the only mechanism that can bear the large costs of treating the whole population during epidemic waves because this task is too expensive and non-profitable to be undertaken by the

private health sector. That is why the latter, in the face of such epidemics, withdraws to the sidelines. It remains only in the so-called 'fillets', that is areas that promise significant profitability (extra profits), *e.g.*, research in treatments, drugs and vaccines. And even in these areas it is heavily subsidized by the public sector.

In a nutshell, the Marxist argumentation runs as follows. Capitalism worsens drastically the human-nature relations (capitalist 'metabolic rift'). Nowadays, this has resulted in the new emerging epidemics; that is the ecological crises often mutate to health crises. Hence, health crises derive from socio-economic causes. This means that health crises derive endogenously from capital accumulation.

III. The policy dilemmas of the pandemic: smoothing out what curve?

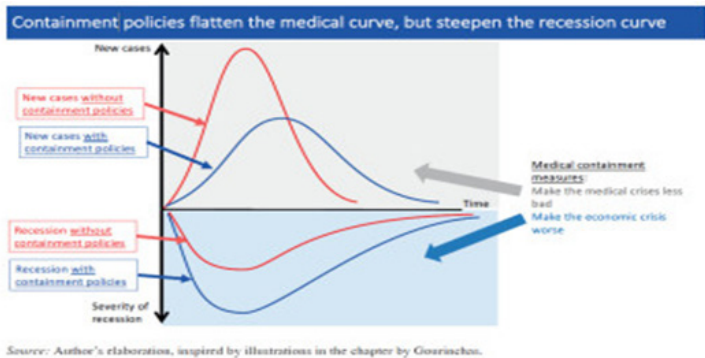
For the capitalist system there is a contradictory relationship between the health measures needed to deal with the health crisis and their economic impact; especially in times of economic instability. This has been explicitly recognized by many Orthodox analysts. Characteristically, both the Economist (2020) and El Erian (2020) point out that measures to tackle the pandemic have a high economic cost that aggravates the recession. The interpretation is obvious. In the event of an epidemic, it is necessary to limit or even completely shut down many economic processes, which results in a reduction in the economy's output.

There is a typical dispute among Orthodox economists as to whether the prolonged halt of many economic activities has an impact on the economy through supply or demand. Marxist Political Economy overcomes this misleading dilemma that resembles that of the Columbus' egg. Extended halts in economic activity lead to a reduction in the profitability of capitalist enterprises as fewer products are produced. This decline is further exacerbated because consumption decreases as disposable income shrinks and consequently even declining production does not find sufficient buyers. In addition, these problems of the real economy have multiple negative effects on both the financial system and public finances².

2 Weak profitability and/or bankruptcy of productive companies affect adversely both the banking sector (as non-performing loans rise) and the capital market (as stock prices collapse). Simultaneously, the contraction of economic activity entails a reduction in public revenue and, in contemporary times, an increase in fiscal deficits and inability to pay public debt.

Gurinchas (2020) delineated this contrasting relation very accurately: ‘the normalization of the contamination curve inevitably leads to the deterioration of the macroeconomic recession curve’.

Baldwin and Weder di Mauro (2020) combined Gurinchas’ two curves in the following single diagram:



The horizontal axis measures the time since the occurrence of the first case of coronavirus infection. The vertical axis measures the number of infections in its positive segment and the severity of the economic recession in its negative segment. The upper part of the diagram shows that if no containment policies are applied then the incidences will be more but also the retreat of the epidemic will be faster. By contrast, containment policies lead to far fewer cases of infection but at the same time prolong the duration of the epidemic. At the core of this case is the notion of ‘herd immunity’³. Of course, both Gourinchas and Baldwin and di Mauro argue that the choice of implementing containment policies is obligatory as otherwise the cost of human lives would be exorbitant. The lower part of the diagram is drawn on the basis of the assumption that containment policies intensify the economic recession while their absence makes it milder.

There are a number of problems with the above analysis, which are characteristic of the one-sided and deeply socially conservative conception of Orthodox Economics.

³ The ‘herd immunity’ thesis argues that the faster spread of an epidemic will lead to faster production of antibodies by the human population. It will have a great initial human cost but will bring about a faster end of the epidemic.

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First, there is no certainty that the economic downturn would be milder without containment policies. Mass infections - and in addition deaths - have a serious impact on both the available workforce and its ability to perform productive work. Keeping businesses open amid a pandemic with the apparent increase in both sick and dying will not leave the rest of the workforce unaffected. On the contrary, it is more likely to lead to withdrawal from the labour force on the one hand and intense trade unionist disputes on the other hand. This leads to the worst-case scenario: an aggravation of the epidemic and at the same time a halt of the economy.

Second, this analysis ignores the political and economic dimension of the problem, and in particular the fact that different socio-economic systems have different capacities to deal with such epidemics. This has a direct impact on the obvious inability of the private health sector (compared to the public health sector) to cope with the crisis.

A capitalist economy can withstand a smaller period of economic lockdown compared to a socialist economy or even a state capitalist economy. As D. Trump put it for the US economy, 'it is not built to be shut down'. The fundamental reason is that capitalist enterprises operate for profit; or else they have no reason to exist. Consequently, they cannot operate at a cost of production level and moreover with losses. Unless someone else subsidises them to keep operating, they are going to close. On the contrary, a socialist economy can survive without achieving surplus (profits) by simply covering production costs. For the same reasons it can survive longer even with economic losses. Also, the socialist state can bear much greater burdens than its counterpart in capitalism as the former has much greater economic size and power. The case of state capitalism is intermediate. In this case, the capitalist state bears some of the burden of private capitalist enterprises and therefore essentially subsidises their survival under conditions of economic duress. Consequently, in the socialist case the distance between the two curves (economic recession with or without containment policies) is shorter. The case of state capitalism is in between the socialist and the pure capitalist examples.

From the previous point follows that socio-economic systems based on a public health sector are in a better position to cope with epidemics. By analogy, capitalist economies that have a large and efficient public health system face epidemics

better than those that have a weak public health system and rely mainly on the private health sector (e.g., the US).

Economic costs and health policy: suppressing or mitigating the pandemic?

The aforementioned Orthodox analysis sets out the general framework within which health policies to deal with the coronavirus epidemic are discussed. The context of the discussion is very clear from the recent study of the Imperial College (2020) epidemiological research team. This study identifies two alternative health policies.

The first policy is called **suppression** and aims to halt the epidemic in its tracks with drastic measures. Its main tools are the extensive stoppages of economic, social and political activities (e.g. closing businesses and services other than those strictly necessary, prohibition of movement).

The second policy is called **mitigation** and aims to make the epidemic milder. Its core tools are targeted halting of specific activities rather than generalized prohibitions. To a large extent, this second policy is combined with the 'herd immunity' thesis.

But the Imperial College study, despite its support for the first policy, points out that the epidemic may initially be suppressed but, if no medication and/or vaccine has been found, it may return when the containment policies are lifted. This means that the country should re-apply containment policies. This creates a vicious cycle of imposing and removing containment policies.

Different countries adopted different health policies. China, which first responded to the epidemic, quickly implemented a draconian suppression policy. Most Western countries initially underestimated the problem - despite China's precedent - and followed mitigation policies. However, Italy's tragedy soon obliged most European countries to change course and adopt the suppression policy. Only the Anglo-Saxon countries (USA, UK) continued for a longer period the path of mitigation policies. However, soon they were obliged to change course.

But second thoughts always remain. Characteristically, the Economist (2020) argued that 'the policy of mitigation costs many human lives while the policy of suppression may be economically unsustainable'. Indeed, the Economist (2020), in the Briefing section, puts it even more emphatically: 'suppression strategies can

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work for a while'. This is how it prepares for the alternative: it may now be politically impossible for governments to follow mitigation policies and remove restrictions on economic activity. But if the economy risks collapse then there will be no other choice than dropping suppression and adopting mitigation policies.

Thus, on the basis of this argument, it concludes that unless a cure for the coronavirus epidemic is found soon, there will necessarily be a shift towards mitigation.

There is a minor but not insignificant dimension to the above-mentioned discussions. This concerns the ability of the health system to manage the epidemic with either a suppression or a mitigation policy. Gourinchas (2020) describes it accurately in the following diagram.

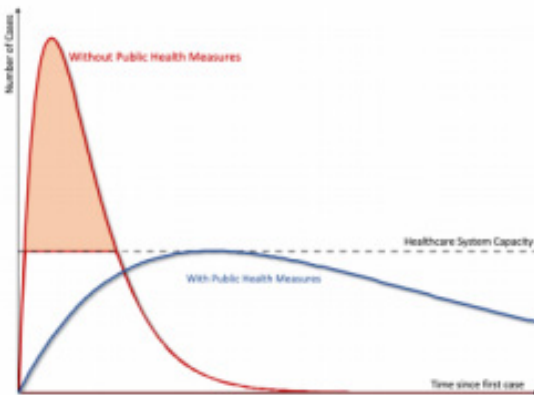


Figure 1: Flattening the Pandemic Curve

The ability to effectively implement either of the two above-mentioned health policies depends on the 'capacity' of the health system (i.e., practically, the number of ICUs and nursing staff). Also, another important parameter is the degree of protection of the medical staff (i.e., its proportion that gets infected during the epidemic and is practically out of combat). It is obvious from the above but it has also been proven in the current epidemic that countries with stronger and larger public health systems are better off than countries with weak privatized

health systems⁴. Interestingly, this public-private dimension is almost completely absent from today's Orthodox economic debates.

IV. Social-Liberalism: The End of Neoliberalism and Continuing Neo-Conservatism by Other Means

The current coordination of the economic and health crisis leads to some crucial conclusions.

First, it is clear that Neoliberalism has failed miserably. In economic policy, the notion that the market is self-equilibrating and the state should withdraw from the economy has succeeded in increasing the degree of labour exploitation (that is, the rate of surplus-value in Marxist terms) but it has failed to cope with the overaccumulation of capital. Thus, the profit rate has not recovered sufficiently. Additionally, its dogmatic view that economic crises are exogenous makes Neoliberalism particularly incapable of formulating economic policies for overcoming crises. By analogy, regarding the health sector, its attempt to privatize the public health systems (either directly or indirectly by fragmenting them and creating competition between their segments and by imposing public-private partnerships) has seriously damaged them.

The obvious failure of Neoliberalism in the wake of the 2008 global economic crisis marked its substitution by the Social-Liberal New Macroeconomic Consensus. Immediately after the eruption of the 2008 global crisis the major capitalist economies threw away the Neoliberal policy mantras and implemented state interventionist policies. Since then, Neoliberalism's fall from grace gathered speed and became more pronounced. The COVID-19 twin crisis makes its downfall and its substitution by Social-Liberalism even more evident. Since the eruption of the COVID-19 twin crisis governments not only adopted loose monetary policies but also applied – more aggressively than in the aftermath of the 2008 crisis - expansive fiscal policies. In the case of the EU, the coronavirus epidemic led to the at least temporary disengagement of public spending and deficits from the constraints of the Stability and Growth Pact. Even more striking is the relaxation of

4 It is noteworthy that the indirect privatization of the Italian public health system through its fragmentation into separate regions (in competition with each other) has caused serious problems of co-ordination and regional imbalances; especially during the early critical stages of the epidemic.

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the additional restrictions on the countries of the eurozone that are in economic adjustment programs (such as Greece).

Indeed, as the long-run use of monetary policy has led to its exhaustion, the center of gravity of economic policy shifted to fiscal policy as extensive fiscal support packages are implemented. Moreover, something unthinkable in the neoliberal times is happening: official voices contemplate the nationalization of strategic sectors of the economy⁵.

In addition, industrial policy is returning explicitly, and in a very active and discreet manner⁶. Indicatively, in the context of the COVID-19 crisis large sums of money are directed to the health sector; and corresponding vertical industrial policy is not only praised but practically implemented. It should be noted that while Neoliberalism abhors industrial policy in general, its successor (the New Macroeconomic Consensus), at least initially preferred only horizontal industrial policies. Now its pendulum is moving towards vertical industrial policies.

Second, there are increasing signs of the forthcoming failure of the New Macroeconomic Consensus as well. The policies it promoted - with the return of a measured state interventionism and the systematic anti-cyclical use of all state policies - may have averted the catastrophe on the eve of the 2008 global crisis but it failed to rectify the very deep contradictions and problems of the capitalist system. These problems are already evident in the inability of its economic policies to avert the economic crisis that was triggered by the COVID-19 epidemic. In addition, in the field of health policies, the New Macroeconomic Consensus practically continued the policy of austerity and direct and indirect privatization of the health system. What it usually adds is a stricter regulatory framework.

Third, dealing with the health and economic crisis is extremely costly. In capitalism who will bear these costs is a field of intense class struggle. For the ruling

⁵ The case of Alitalia's nationalization in Italy is exemplary.

⁶ The term Industrial Policy describes a wide range of government objectives and actions to promote the economic functioning and sustainability of specific sectors of the economy. By its very nature it is strongly interventionist. Neoliberalism argues that it is ineffective and in fact it should not exist as it 'distorts the free functioning of the market'. There are two broad categories of Industrial Policy: (a) horizontal (general regulations and policies for the whole economy without affecting the balance between individual sectors of the economy) and (b) vertical (focusing on specific sectors and applying discriminatory (*i.e.*, differentiated) regulations and policies that change the balance between individual sectors of the economy).

capitalist class, this twin crisis poses both risks and opportunities. It is a risk because any such combination threatens the fundamental functions of the capitalist economy. But it is also an opportunity as the system is experimenting with new forms of labour relations and wages. Teleworking is a newly found vice. Capital tries to discover how many job categories can be effectively relegated to this and what new tools of control are required in order to sustain (and even increase) productivity. Reducing wage costs (through flexible employment, subcontracting, direct wage reductions, and reducing wages, pay per piece, etc.) and further deregulation of labour legislation is already a field for such tests.

In the short-run, the system places the economic burden of dealing with the health crisis on the capitalist state. In this way it is being 'socialised' in the sense that other social classes, apart from the capitalists, share it (usually disproportionately) through taxation. Hence, the state subsidizes private businesses that shut down or work with severely limited capacity. It also covers most of the wage costs of these businesses through various labour subsidies. At the same time, however, labour law, in particular as regards redundancies, is practically smashed to smithereens. Overtime is extended but its remuneration is either equated with normal work-time or 'paid' in free time.

In the mid-run, the system's concern is how to address the growing fiscal deficits and debt created in the effort to tackle the combination of the twin crisis. In the long-run, however, the system contemplates what drastic structural changes are required in order to cover its losses and restore capitalist profitability and accumulation.

Concluding, the COVID-19 twin crisis stems from the very essence of the capitalist system. Moreover, the system's attempts to cope with this crisis put the burden on the labouring class and attempt to create an even more dystopian future than the COVID-19 epidemic itself. The task of the great toiling social majority of our societies is to repulse this dystopian capitalist 'new normality' and to open the path for a non-exploitative and equitable society of solidarity and common good.

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THE MEDIA LIFE OF THE PANDEMIC AND ITS MAIN ASPECTS

Marine Lomidze

Abstract

The pandemic is a global phenomenon and has posed unprecedented challenges to the entire world. The universal problem of the 21st century has set a new agenda for the world community with the general characteristics of relation: millions of citizens have fallen ill, people of different ages are dying, there occurred serious problems in the economy and the field of communication. In such a situation, the role of the media is indefinite. Since the media is a shaper of public opinion, a leader and a creator of a certain “climate”, it gained, as never before, the function of consolidating human unity, raising mood and motivation, mobilizing for certain actions, forming public interest, raising professional creativity and work enthusiasm. A study of the issue reveals that the experience of different countries in covering media pandemics is unique. The world’s media representatives can learn a lot from each other, considering the mistakes, but still make their own and fail in certain actions such as the mechanism of joint activities of government structures and media representatives is imperfect; inadequate care for the community to remain calm; willingly or unwillingly, panic, the alarm is established; and the most important is that people prefer scandalous news to calm, balanced, experts views.

Keywords: Media, Pandemic, Covid-19, Crisis, Information, Communication, Journalist.

Introduction

The world is trying hard to deal with the coronavirus, as for the virus, it stubbornly does not give up. Since the COVID-19 is still raging, experts are predicting that

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people will have to live with it indefinitely. This is the first time generations of the Earth have faced such a massive problem. The study of the problem has begun in many respects and will continue for a long time until the process is completed. This itself has become a dilemma for many professions, and of course, the media is not an exception. Since media workers have to obtain material at the cost of their health and take social responsibility to deliver quality media products to the population.

The existing reality is forcing the world to rethink many basic questions. For instance, to form a unified consciousness: to understand that only the development of technologies cannot solve all the necessary problems, that all material and human resources are required to solve the problem on time, without less damage, and return the world to a normal lifestyle. There are many today who suggest that the world will never be the same. The media has a large share in all these processes. Thus, accordingly, the future world will depend on the “fourth government”: the way it chooses - will help establish a healthy public interest or a bias position, that will diminish any potential and perhaps even destroy it.

Media experts, psychologists, sociologists focus, first of all, on the need to perform the main function of a journalist - to reflect the reality, to fix the problem, to offer the optimal solution. In the conditions of the pandemic, it became necessary to activate another important role of the media, particularly, a journalist should show the models of behavior - how to act in certain conditions and convince people of its validity. For instance, to promote the level of social responsibility of citizens for the unconditional and unwavering observance of the imposed regulations, for vaccination for personal and civil insecurity.

Life has proved that when propaganda spreads absurdity, gossip, rumors instead of real facts, such an action boomerangs back to the customer because such behavior sows uncertainty. Since it may serve as a precondition for distrust and suspicion of government structures and make the processes unmanageable. Here we have to highlight that during a type of crisis such as a pandemic, the physical and psychological condition of people is very fragile and sensitive. Thus the actions of all branches of government must be especially cautious and prudent. Working in the public interest is one of the tools that must be used to solve the problem.

The scale of the problem of the prevalence and quality of communication in a pandemic crisis determines its versatility and requires a complex study: a deep

understanding of the essence of the crisis, discussing its management mechanisms, and getting acquainted with the experience. All this clearly shows the seriousness of this issue and the need to develop the right policy, including the strategy of the media.

The hypothesis of the paper is: despite the tremendous work done, in the context of pandemic globalization, the media do not have time to spread disinformation and unverified information, cases of violation of professional standards, which hinders the protection of public interests.

Research questions: the extent to which the media reflects the public interest in COVID-19 and contributes to the management and regulation of processes; how well the media adhere to professional standards.

Research methods: content analysis; survey on the social network. In order to give universality to the issue, it requires the application of both - qualitative and quantitative research methods. The content analysis became necessary to study and analyze the materials published in the media. This research method gives good prosperity to identify the problem and trends in the activities of the media during a large-scale crisis, which, in its turn, was confirmed by a public survey. The survey on the social network gives a clear picture to presented conclusions and recommendations of the study since they are based on the responses and assessments of citizens.

Literature Review

The crisis has become an accompanying process of the society in any sphere of public life and structural life such as political, economic, medical, ecological, and governmental, commercial, or industrial. To find out the significance and urgency of the presented issue, it is worthy to review the general aspects of the crisis seen through the eyes of specialists, their methods and methodologies of dealing with them, and the social potential of the media as an effective and efficient tool of public relations and adapt them to modern processes. Crisis communication is a relatively new field of cognition and its importance is immeasurably great because it is the crisis that disrupts all the assembled information flows, which makes it impossible to fully inform the public.

Lack of information about the structure and essence of the crisis is one of the problems of human time. There are several points in the description of the crisis. A famous public relations specialist Sam Black offers an original approach to the crisis, and divides it “known unknown” and “unknown unknown” (Black, 1990). The “known unknown” is caused by the specifics of the enterprise or service. For example, the production of chemicals and radioactive elements is constantly accompanied by the possibility of leakage of toxic substances, and the risk of possible accidents in maritime, rail, and aviation activities remains high. As for the “unknown unknown,” it is a catastrophe that no one can ignore. For example, September 11, 2001, terrorist attacks in New York.

The crisis is divided into two groups according to their origin. Premeditated crises, which in turn are of two kinds: for physical destruction of people (terrorist acts, counterfeiting of products) and a crisis that does not involve the destruction of people but causes serious harm (explosion threats, computer viruses, spreading gossip, illegal actions, etc.). The second category of crisis is not predetermined, since it occurs spontaneously: fire, explosion, bankruptcy, destruction of the firm, chemical leakage. A crisis can affect the whole world or be limited to a certain area or group of people. In this case is the explosion of the International Trade Center directly affected the interests of other countries, in Oklahoma City (the USA, 1995). Even in the absence of such direct links, some crises take on global significance when it comes to the economic and medical spheres and COVID-19 is clear evidence of this.

A certain group of scientists studying the problems of crisis management offers a different model of crisis classification, which is based on errors in personnel management: technological, confrontation, malice, distortion of governance values, official crime, lies, etc. Here we have to refer to E. Galumov's notes that in many studies the crisis has been described in terms of a temporary factor. In addition, visual color associations are sometimes used: green means new accidents and problematic situations, yellow is current and mature problems, and brown - old, so-called closed crisis. This method of coding has been called the “banana index” of crisis assessment (Galumov, 2004).

Crisis communication researchers S. Catlip, A. Center, and G. Broome distinguish between unexpected, developing, and solid crises in terms of determining the quality of crisis response (Katlip, Center, Brum, 2001).

There is no time to study an unexpected crisis and plan measures for its exit. In this case, it is necessary to have a preliminary action plan agreed upon at different levels of management, which will make it possible to avoid misunderstandings, quarrels, and non-operational responses. Emerging crises are the pre-strike period, the unfavorable climate in the collective, abuse of official rights, etc. Such crises can arise suddenly but last a long time. Therefore, specialists have enough time to analyze the problems and plan the necessary measures. They can anticipate the consequences of the crisis, rectify the situation. The main task is to convince the leadership to make changes to the plans before the crisis reaches a devastating phase. Solid crises are conflict situations that have existed for a long time despite leadership efforts. The sources of these conditions are rumors that appear in the process of personal relationships or the media. Rumors are difficult to deal with because it is not under the control of the organization. This trend has been somewhat evident in the case of COVID-19.

Specialists consider the crisis to be essential for the economic sector: production halt, bankruptcy, employee strikes, the possibility of a terrorist act, disclosure of confidential business information, loss of financial support from local authorities, detection of serious product defects, and counterfeiting of the company's main product. All of the above factors are local in nature. The causes of the crisis in the manufacturing sector, such as the mobilization of economic and financial activities as a result of failed reforms, are the consequences of global economic and geopolitical fluctuations. In the case of the current COVID-19, the cause of the economic crisis is different.

Either the crisis is local or large-scale, and in whatever dimension we consider it, in all cases, it is necessary to manage it. The term "problem management" was established by American specialists in the 1970s. They envisioned, first and foremost, that the public relations system (PR), an important tool of which is the media, allows to identify a problem, take the necessary action, process and apply the necessary innovation, and sometimes radically change the whole activity in the face of ongoing change. The main responsibility of crisis management is to pre-determine the risk, eliminate it quickly, reduce the damage and take care of restoring public confidence in the company (Vekua & Rue, 2017).

It is noteworthy that the complexity of the crisis is significantly due to its non-standard and high dynamics, which was revealed in the conditions of COVID-19.

Making an effective decision in an extreme situation is not an easy task, which, according to experts, can be explained by strengthening not only logical but also reflexive qualities in a person in a stressful situation. In general, a crisis is an event with a lack of time and information. It is the above-mentioned circumstances that define the main task of public relations (PR) - to promptly obtain the necessary data on the crisis, which will be used to develop a solution to a conflict situation or a program to prevent it.

While talking about crisis management we have to refer to Claudia Reinhard's book, *Tips: How to Manage a Crisis*. In his opinion, it is inadmissible: to make unreliable assumptions known to the public; respond to provocative questions; humiliating the importance of the problem, or embellishing the situation as the press will soon find out the truth; information leak. Any fact spread through the media can become the basis for a new version; disclosure of information about a person's private life if it contains any allegations; communication with the press in case of lack of information; giving preference to any media outlet; using the crisis for self-promotion (Reinhard, 1987).

Bertrand draws attention to the fact that journalists, for the sake of primacy, sometimes even fabricate events in an attempt to spread information quickly, carelessly blowing up the event. Unfortunately, there is a worldwide practice of doing so in a pandemic. The main goal of very important journalism is to provide people with news, views, comments, and information in the public interest fairly, thoroughly impartially, moderately, and decently. To achieve this, the press is required to conduct its conduct following generally accepted standards of professionalism. Accuracy and fairness should be the foundation of journalism. The press should refrain from publishing inaccurate, unfounded, unworthy, misleading, and distorted material. All parties need to be represented when covering an important issue. Unconfirmed rumors and assumptions should not be presented as proven facts. Only the actual accuracy of the material is checked with proper care and attention; A position containing appropriate corrections based on interested credible sources requires disclosure. Material that is infallible and its dissemination is in the public interest should be published (Claude-Jean, 2004).

Eliot Aronson, a well-known American psychologist of our time, also discusses the issue of mass communication when discussing social psychology in *The Social Animal*. She points out that the power of the media is best illustrated by a

phenomenon known as “emotional infection”. She tells the story of the “Chicago killer” of 1982: the painkiller “Tylenol” mixed with cyanide killed seven people. The tragic and unusual news was covered in detail and the result was not long in coming, similar poisoning took place in many cities. The situation became even more interesting when the scandal was created first from cases of poisoning and then from the critical opinions of media experts who discussed the catastrophic consequences of such publicity (Aronson, 2014).

A Nobel prize-winning writer Gabriel Garcia Marquez, in his famous article “The World’s Best Craft”, fully argues for the state of the media and warns that the journalistic profession is the most dangerous in the world. The writer offers a tried and tested way to get out of the current situation - study, upbringing, and education! (Marquez, 2007)

A well-known German sociologist Niklas Luhmann in his book, *The Reality of the Mass Media* notes that the media discusses and reflects on events as its phenomenon; unverified or erroneous facts are spread by the media as true information that must be constantly updated for the falsity to go unnoticed. Thus it means that the information presented in the form of news is considered to be an unquestionable truth. In this case, Luhmann names the criteria used to make information news: the information must be new; conflicts are preferred; it is extremely important to break the norms, which often take the form of a scandal through the interpretation of the mass media, and so on. In his view, mass media knows everything about society and the world we live in. It is about the knowledge of nature in general, the cognition of the world. On the other hand, we know so much about the media that we can not trust this source. We oppose its influence, suspecting that we are being manipulated. However, this does not change anything. (Luhmann, 2000).

The functioning of the media in the context of COVID-19, the largest crisis event in the world in recent years, is discussed and evaluated following the above principles.

Due to the complexity of the field, the profession of crisis manager has been established in many countries. Sam Blake essentially recognizes the aspects discussed above for their work, such as immediate response, providing accurate, objective information to the media. At the same time, it specifically indicates the possession of technical information, the implementation of all possible measures to express

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the interests of the victims and their relatives (Black, 1990). Following the principles discussed by the researcher, the list of prohibitions becomes more extensive and specific. Thus, in the process of overcoming the crisis, there are certain mistakes such as uncertainty, which leads to a feeling of uncertainty, indifference, and incompetence in society; creation of a foggy cover that instills in the public an idea of disorder and indifference to the organization; uncertainty, which creates more problems, because it is impossible to change reality; a dogmatic stain rather than neutralizing an existing problem, demonstrating the arrogance of an organization or officials; confrontation, that creates the illusion of activity, puts everyone in a tense position, trying to mask the reaction to the problem; having reliable information prevents rumors from spreading.

The latter is especially important because there is almost nothing that can be said about it. The time-space area of their distribution increases with geometric progression and it is very difficult to stop it. Similar incidents occurred during the pandemic.

The most appropriate method of combating gossip is preventive measures, which prevent the causes of gossip through the effective mutual use of timely reliable information. In this case, we have to highlight that if there is still an unwelcome moratorium, urgent action is needed immediately, as it is the most “impossible” cause of the deepening crisis. A document defining the conditions of media work in a pandemic is Professor Claude-Jean Bertrand’s “Media Ethics and Accountability Systems”. Quality control “I think. The scholar pays great attention to the issue of the journalist’s understanding of the social responsibility of his profession: particularly to the identity and nature; talents and shortcomings. In other words, ethics will be reduced to awareness. According to the main recommendation of the Hutchins Commission, a journalist needs a broad general education and specialization in a specific field. The book names many forms of manifestation of incompetence such as using vague terms, misrepresenting the statistics, simplification the complex issues, neglecting the precedents, presenting a hypothesis as a proven fact, generalizing a single fact, drawing unfounded conclusions. The goals of media leaders for editorial policy are also defined: thinking about the community, groups of people, and individuals, influenced by the media in a certain way.

Oddly enough, experts do not consider the crisis to be an unambiguously negative phenomenon, but also consider its positive side. This presentation of the

event is based on the determinants of action. In particular, the crisis forces the head of the organization to look for new funds. For example, a fundamental upgrade of production and key, a change in the forms of managers and governance open up new perspectives for the cardinal improvement of work. There are practically many cases when the news was conditioned by the necessity of the crisis. In case of the pandemic, the same thing happened: the current reality is forcing the world to rethink many fundamental issues.

Crisis communication management theories play a crucial role in informing about risk in close connection with all available means of communication and the effective use of the media. Establishing connections with news channels, understanding the requirements of the target audience, and knowledge of media methodologies and techniques will help improve communication with them. Centralizing communication in a crisis is controlling the receipt and dissemination of information.

Properly managed, targeted, reality-based action can prevent gross media interference. In the field of Public Relations, it is usual to turn an incident into a crisis and make the current crisis devastating. The main directions for the implementation of the PR-service strategy in a crisis are: simultaneous communication reaction, satisfying the interests of the media representatives (answering all the essential questions), and expressing grief, regret. The main plan of action is based on the following stages: dissemination of information, neutralization, and correction of negative information, separation of credible information from misinformation. Particularly noteworthy are the tactics of answering questions asked by journalists (in terms of tone and content). Tactical use of “understanding”, “ignoring”, “objectivity of information” or “compassion” is a surefire way to neutralize the situation. Attracting loyal independent experts and specialists is also justified from a tactical point of view since public and media trust in their speeches is much higher (Lomidze, 2009).

Positive Aspects of Media Work in Pandemic Conditions

Since the spring of 2020, the state of emergency declared in the countries due to the pandemic, and the social campaign “Stay at home!” have completely changed the style of daily activities of the world media, journalists: fully informing the population remotely and largely without leaving home. Journalists provide the public with information, news about current events. Media sources try to analyze

current processes, prevent conflicts of interest, correctly prioritize, separate facts and opinions, select the appropriate form of content, visual material, offer the public professional opinions on the issue, help the audience to understand the essence of events and make decisions. With the new reality and the strict rules of safety, the newsrooms of the leading media organizations have forced them to use all technical possibilities, such as Liveblogging, podcasts, graphic content, or more (Kurtanidze, 2020).

Hence, Georgian media organizations have switched to full or partial remote work. TV programs were temporarily suspended for some time and the news format was launched. The Georgian-language bureau of Radio Liberty divided the editorial office into two groups, staff could work online from home. However, a certain part of the staff had to work in the office. There were and still are some restrictions on the use of specific terms such as panic, disaster, horror, horror, incorrigibility, etc. (Vakhtangishvili, 2020). Media publish informative, explanatory publications. For instance, Radio Liberty provides comprehensive information about various vaccinations and answers possible questions in the material “Vaccination on Covid: where to write and what to know - answers to key questions”.

A special website PROVAX.GE was created to raise awareness about vaccination. It spreads through various types of content, especially effective and effective short videos. In them, people from different professions refer to the importance of vaccination and their own experience with the motto: “Don’t let Covid separate us from each other.” Vaccinate! “These videos, which incorporate the function of social advertising, are composed with a well-defined strategy. Social strategy is based on advertising goals and also considers one of the important elements of a media strategy to choose the right social media platform.

The US Embassy noted the tireless work of Georgian journalists with limited resources and expressed its gratitude for the relevant post posted on the Facebook page of the diplomatic mission (Interpress News, 2020).

Risks and Challenges

Despite the typical indicators, the pandemic in different countries is still peculiar and is determined by the psycho-social, political-economic factors in the region. Pandemics, as one of the types of crises, are still distinguished by specifics: changes in public and personal self-awareness, a sharp decline in vital potential,

including the immune system. The situation is complicated by the fact that it has been delayed in time and, unfortunately, the waves of the spread of the disease do not yet provide a comforting presumption of completion. The efforts of professionals have given certain results - a way to fight the disease - vaccination, lifestyle, but all this does not give the desired result, this is not enough, and the whole world continues to live in a state of emergency mode. During this time, media representatives, journalists have gained some experience in dealing with the pandemic, and the consequences are obvious, but still, challenges remain that probably will not be eliminated until the pandemic is over. The chain of challenges revolves mainly around the issues of information reliability and protection of professional ethics, to some extent its area of distribution, frequency, efficiency.

Today, in the conditions of technological development, with almost two years of experience in understanding the responsibility of covering the existing problem, it seems that the problems should not be so acute, but we still have to note that the population is still afraid of spreading the virus and disease; the negative impact of systematic stress-changing information; Despair due to physical distance from people and jobs, economic crisis, uncertain future, which denies a good idea of the future lifestyle, changes people's social behavior and beliefs.

The spread of the coronavirus has posed a major challenge to the media due to its lack of experience in dealing with crises of this scale, adherence to professional standards, and also switching to a remote working model. The increasing flow of disinformation around the world is a significant new challenge for the media that requires the right skills, knowledge, and effort to verify the information. With the spread of the new coronavirus infection, racist narratives, discriminatory and hate speech in the media have increased, which studies confirm. The dangers of adhering to the principles of ethical journalism of professional standards (accuracy, fairness, impartiality, etc.) arose. There are shortcomings in the use of terminology, threats due to the need to respond to the personal data of the respondents, identification, and disclosure of personal information. Journalists have to strictly follow the rules of physical security and manage stress.

Remote journalism, which requires the use of largely different communication platforms, at the same time poses particular challenges in terms of digital security. One of the biggest dangers is disinformation campaigns aimed at destabilizing

and sowing panic and which users inadvertently tell them about. In such a situation, of course, it is very difficult to protect yourself from cyber-attacks. Today, the term “infodemia” is the most relevant and the most relevant position is how to protect ourselves from misinformation. The most effective strategy, in this case, is to balance the misinformation by informing the public, spreading panic and rumors. Thus, it is necessary to filter the messages received through social networks as much as possible, because cybercrime has intensified in this part; as well as the use of trusted and government websites to obtain accurate and secure information about the spread of COVID-19; take special care with messages received from an unknown sender, checking their authenticity, linked links or files. We have to admit that following these tips, can minimize the risk. From the very beginning of the coronavirus pandemic to the present day, misinformation has been spread about the virus. The most common myths about Covid-19 that have swept the world and endangered human life are: information that it is possible to diagnose coronavirus by holding your breath; drinking hot water protects against coronavirus; the use of methyl alcohol is a means of preventing and/or treating coronavirus (Kurtanidze, 2020).

The online publication hotnews reported that “there is no pandemic” and that it was the “scandalous confession” of the epidemiologist of the World Health Organization (Vakhtangashvili, 2020).

Conspiracy theories about COVID-19 are emerging in various media markets and sowing uncertainty in the public. According to a survey conducted by the Pew Research Center, almost a third (29%) of U.S. citizens believe that Covid-19 is most likely designed in a laboratory. Continued dissemination of misinformation and unverified information around COVID-19 can pose a serious threat to effective and efficient communication between the health care system and the public (Myth Detector, 2020). Virus-related data and information change very rapidly, which in turn changes people’s attitudes towards ongoing processes. Despite the activities of the media, journalists, whether intentionally or unintentionally, violate security rules, distort the facts, which confuses the public. The Georgian Communications Commission has also issued a statement in this regard, stating the activities of journalists at the risk of health risk, the crucial importance of disseminating accurate and verified information by the responsible media.

Media Prevention Measures

In 2003, following the spread of the SARS virus, the World Health Organization declared effective communication with the media to be one of the top priorities in times of crisis for viral outbreaks and public health in general. In 2005, the organization published a Handbook for Effective Communication with the Media in Public Health Emergency Situations. It explains in detail all the steps that local health organizations should take to effectively address panic and disease communication among the population. A multi-page detailed document covers all the details of effective communication, such as analysis of the environment, clear and understandable message boxes, tactics to avoid panic or a list of possible questions that may arise in the media. It all starts with studying the environment and the requirements of journalists. Accordingly, an action strategy is developed based on these needs, which will enable flexible and result-oriented communication with the working organizations, the media, and, consequently, the population. According to the document, one of the main mechanisms for preventing panic and chaos is the coordination of journalists, who, at clearly recorded intervals, provide the organization's employees with comprehensive, adapted, and understandable information, adapted to the needs of the local population. As well as for instructions on disease prevention measures and safety measures taken by the state. This type of regular and timely communication between the media and process controllers is one of the only ways to prevent panic attacks. This is a fundamental guidance document that strict adherence to is essential for media workers.

The Georgian Charter of Journalistic Ethics has prepared guidelines for media coverage of COVID-19 in the framework of the Media for Transparent and Accountable Governance (M-TAG) program, implemented by IREX with the support of USAID (The Georgian Charter of Journalistic Ethics, 2020).

The guide is based on the experience of international and Georgian media outlets, media experts, and individual journalists. It considers the local context and specifics, as well as the works, findings, advice, and recommendations of authoritative international organizations. Periodically, in the wake of the accumulation of information about the pandemic, new knowledge, and experience related to the infection, the handbook is updated. This guide is intended to provide appropriate knowledge for pandemic coverage to a high professional standard. In addition, it helps journalists work safely and facilitates public professional discussions on disease-related topics (Georgian Charter of Journalistic Ethics, 2020).

Conclusion

- Georgian as well as international media, often try to provide operative and educational information on pandemic issues putting under the risk their health, about how to behave, what methods to use to manage their spiritual and physical potential, how to adapt to the existing reality. The media has gained some experience during this one year, but it fails to cope with the challenges: since there are certain cases of professional standards violation.
- In pandemic conditions, modern technologies have significantly expanded access to information and the ability to disseminate it. Social media has changed the attitude toward the media mainstream. If recently traditional media has been the main source for information, today it has been gradually replaced by social media. However, there are frequent cases when social media opportunities are used for misinformation or propaganda and mislead the user.
- Often, the media in a particularly extreme situation, willingly or not, itself violates existing standards, thus causing misunderstandings.
- Often the media do not know how to work in a specific extreme situation and deliberately or not violate existing standards, causing misunderstandings. It should be noted that this circumstance harms people's consciousness and mood, thus contributing to the establishment of an unfavorable psycho-social environment (introduction of fear, panic, alarm). Inconsistent, unbalanced presentation of facts and biased assessments hinder the creation of a healthy environment, which negatively affects the behavior and attitudes of society.

Recommendations

- Considering the peculiarities of crisis communication conditions, the need to improve the joint media communication system and state bodies on social responsibility, based on the timely provision of truthful facts and competent analysis, is required:
- **From the Government:** strict adherence to the basic principles of relations with the mass media and state structures: cooperation with the mass media in any situation.

From the Media:

- Pay special attention to the specificity, timeliness, accuracy, and completeness of the information. Ensure channel access and coverage with stakeholders;
- develop a communication strategy that will establish the correct response to the human crisis based on the content and form of the media product, considering rational and emotional factors; exclude the emergence of panic, fear, despair among the population;
- raise awareness of people about the risks, assist them in developing the right approach to crisis management, and be the ability to reflect appropriate behavioral responses based on relevant knowledge and approach.

Journalists Should:

- use reliable, relevant sources and medical research; Select highly qualified respondents;
- access medical and scientific documentation and papers on pandemics; Be careful when using data;
- when using them, rely only on reliable, official sources;
- avoid sensation and panic in the headlines;
- exercise caution when using terms and adjectives in the text; Do not exaggerate negative or threatening messages;
- avoid the use of sensational photos and visuals, especially those that display tragic stories and stories.

To set correct priorities

- in the media curricula of higher education institutions such subjects as crisis management, ethics, and journalism training courses should be more widely covered;
- particular attention should be paid to the practical training of journalism in higher education institutions, generally to the study of news and fake news dissemination and separation mechanisms, and the issue of expanding media literacy.

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4

DEMOCRACY IN THE CONDITIONS OF THE COVID-19 PANDEMIC- AUTOCRACY TURNS VIRAL CASE OF GEORGIA

Madlena Kotsotsashvili¹

Abstract

The pressures of the coronavirus pandemic are multidimensional and no country has been able to avoid its negative consequences. Georgia is no exception. In addition to the health sector, the pandemic has an unprecedented impact on the global economy and has negative side effects in almost every area of public life with varying strengths and intensities. The global pandemic has become a crisis challenge for democracy and an inspiration for profound change around the world. It is especially important what pandemic democracies are experiencing in this era of transformation and what awaits new weak democracies. Georgia, which is a young democracy and still in transition, is facing the same challenges and crisis amid a global pandemic. Pandemic elections have had a severe impact on the future of both society and the state and democracy. The country has been in a severe political crisis in 6 months. Like the USA, Georgia is a clear example of the risks involved in holding democratic elections in a state of emergency, both in terms of democracy, constitutional order, and the country's stability and security. In this paper, we discuss the example of Georgia, how the pandemic affected critical elements of the election, the fairness of the electoral process and the credibility of the results, and how this affected the quality of democracy, and the risk of a return to autocracy in the country.

Keywords: Democracy, Autocracy, Elections, Global Pandemic, Society.

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Madlena Kotsotsashvili

Introduction

The COVID-19 pandemic threatens not only human life and well-being around the world. It is also a political crisis that threatens the future of liberal democracy. The question is: What is the state of the world and democracy today? Numerous authoritative studies confirm that autocratization becomes viral. 2020, which will go down in recent history as the “Year of the Lock,” has replaced 2019 with the Year of the Protest. That was the focus of last year’s analysis of democracy (V-Dem, 2021).

Authoritarian governments are using the crisis to their advantage and tightening the political regime. Some democratically elected governments are battling pandemics by increasing emergency powers, restricting human rights, and strengthening government control. Parliaments are slipping into the background, the media is polarized and oppressed, minorities are being blamed for all the problems, and the most vulnerable populations are facing new alarming threats as economic stagnation destroys the capabilities of society around the world. Clearly repression will not help end the pandemic. Restrictions on freedom of speech and expression, arrests during peaceful protests, restrictions on the work of legislative oversight bodies, and the cancellation or postponement of elections will not contribute to public health. On the contrary, the violation of freedom, transparency and democracy further complicates rapid and effective crisis response at both the government and public levels.

The global pandemic has become a crisis challenge for democracy and an inspiration for profound change around the world. Modern societies are experiencing many other crises: the economic crisis, climate change, the biodiversity crisis, the apparent rise of inequality, the rise of populism, the rise of geopolitical tensions, the ongoing religious and ethnic conflicts, the black protests in the US. All of this characterizes our era against the backdrop of the Covid-19 pandemic as an era of profound change and uncertainty that can rightly be called the era of profound transformation (Schott, 2020).

The Covid-19 pandemic has deepened the crisis of democracy around the world. Since the outbreak of the pandemic, the situation with democracy and human rights has deteriorated in 80 countries, according to a new report, Democracy Under Lockdown (Freedom House, 2020), with particular deterioration in weak democracies and repressive states.

What is pandemic democracy experiencing in this era of transformation and what awaits new weak democracies? One of the obvious features of this era before the pandemic was the irrelevant nature of existing social institutions in terms of solving global problems and regulating growing social polarization. Signs of severe stress or complete failure are observed in a wide range of institutions today. This has become apparent both in small weak democracies and in developed countries.

We must first determine which democracy we mean by its critique (Ercan & Gagnon, 2014). Most of the literature that confirms the current crisis of democracy relies on the traditional concept of democratic representation as the normative standard.

Georgia, which is a young democracy and still in transition, is facing the same challenges and crisis amid a global pandemic. Pandemic elections have had a severe impact on the future of both society and the state and democracy. The country has been in a severe political crisis for practically 6 months. Georgia is a clear example of the dangers of holding democratic elections in a state of emergency, both in terms of democracy, constitutional order, and the country's stability and security. How can a global pandemic become an opportunity for revanchist and hostile forces to achieve their own goals. As well as what impact the polarization of society has on the future of the country. The Georgian case shows how the pandemic affected critical elements of the election.

Research Methodology

The study of democracy and democratization processes is important in the era of modern postmodernism, and its theoretical understanding requires a new approach today. Without the use of theoretical-empirical research methodology, understanding the issue would be irrelevant. Also, in this chapter we have tried to use the methodology of secondary research and the method of comparative analysis to determine how well the democratization processes are developing in the world and specifically in such weak and young democracies as Georgia. Accordingly, we analyzed the Georgian model of democracy as a model of electoral democracy. Content-analysis of various studies assessed the attitude of the Georgian society to how much democracy developed in the country the so-called From the Rose Revolution (2003) to the present day and what has changed in terms of strengthening democracy in the country.

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Literature review

The state of democracy in the wake of the global pandemic caused by the corona virus has been studied by numerous authoritative organizations and researchers. In the present chapter we have reviewed the reports of such well-known international organizations as Freedom House, IDFI. V-Dem research is also used. Varieties of Democracy (V-Dem) produces the largest global dataset on democracy with almost 30 million data points for 202 countries from 1789 to 2020. Involving over 3,500 scholars and other country experts, V-Dem measures hundreds of different attributes of democracy. V-Dem enables new ways to study the nature, causes, and consequences of democracy embracing its multiple meanings. In order to understand the contemporary challenges and crisis of democracy, we have reviewed the well-known works *How Democracies Die*, published in recent years, by Stiven Levitsky & Daniel Ziblatt. They use the example of the United States and other countries to discuss circumstances that could prove fatal to not only American but liberal liberals in general. Walden Bello, in his book *The Global Crisis of the Legitimacy of Liberal Democracy*, explains well the processes that contributed to the crisis of democracy. Wendy Brown's book „*In the Ruins of Neoliberalism: The Rise of Antidemocratic Politics in the West*” also points to a crisis of ideals that has remained in the remnants of neoliberalism and has become the headline of Western politics. In addition, the present chapter analyzes the example of Georgia, how the global pandemic of Covid 19 became a major challenge to democracy in a crisis situation, and in this regard discusses the valuable works and expert reports of non-Georgian and foreign researchers.

The Covid 19 Global Pandemic and the Crisis of Democracy

There is a broad consensus among scholars that global democracy is in crisis and that democracy is struggling to survive around the world and is increasingly experiencing a dramatic, even existential crisis (Youngs, 2020). Numerous international organizations measure global democracy by all important parameters and with all emphasis point to their significant decline. The quality of democracy has dropped significantly in the last half decade and especially last year. The crisis of democracy has been talked about for a long time. In the last two decades, dozens of books and articles have appeared on the topic of the acute crisis of democracy, that democracy is in a state of collapse and is facing deconsolidation, delegitimization, and so on. Sh. In democracies, ambiguity is increasingly seen and it is

perceived as part of modernity. Against the backdrop of a global pandemic, this trend is evident, but is democracy really experiencing a “crisis” of this magnitude?

The term “crisis” was first used by a group of scholars in 1975 to assess the practical functioning of democracy (Crozier, Huntington & Watanuki, 2012). If we look at history, the number of democracies has increased over the last three decades. This was also expected after the end of the Cold War and the collapse of the Soviet system. Most of the countries of the former Soviet camp have successfully moved through the process of democratic transformation. Although the line of comprehensive global trend towards democratization is now experiencing some decline, it should not be viewed as a dramatic collapse of democracy. A new challenge - the global pandemic has a noticeable impact on the political trajectory of states, differing approaches to democratic order, although we can not generalize as a single overall trend. While the public and media focus on dramatic setbacks and the high-profile illiberal ill-advised policies of some leaders, many countries are silently stating democratic gains (Armenia, Georgia, Ukraine, Tunisia, Gabon, Gambia, Myanmar, Sri Lanka, Guatemala, Colombia, Nepal) (Youngs, 2020).

Autocratic regimes are gradually becoming smarter to resist political pressure and prolong their existence. The question here is: do citizens still want democracy in such countries? This is difficult to determine because the data is either vague or less reliable.

Today, trust in governments is generally lost. Probably the most important thing is that today’s “problems of democracy” are evident not only in non-Western regions, Military coups or the absolute end of democratic governance are no longer considered the crisis of democracy. But the crisis is caused by overt or covert harassment of the quality of civil liberties and the functioning of democratic institutions. Liberalism is at greater risk than democracy itself (Bello, 2008). In short, the global weakness of democratic ideals is in the face, and we can say that democracy is in crisis, and the risks of exacerbating this crisis are high during a global pandemic.

This view may not yet apply to Western democracies. This is not a new topic. As early as the turn of the 20th century, Max Weber pointed to the “iron cage” of bureaucratization. Later, Robert Michels called for attention to be paid to the “iron law of the oligarchy.” Today, the “Iron Cage” was created with bureaucratic centralization, under the control of which, the Institute of National Security plays on various fears of the public. In the case of the Third World, this is

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compounded by the draconian policies and interventions of powerful multilateral institutions aimed at systematically undermining democratic mechanisms by local elites (Bello, 2008).

Do we even have full information about the risks and dangers that are stifling democracy around the world? To answer this question, we first need to reconceptualize or fundamentally renew democracy at various levels. For a very long time we equated democracy with elections. That is, we went to the polls and elected representatives and a party. Thus, we considered that our democratic obligations have been fulfilled. But now Rousseau's view that representational systems are so corrupt that it generates corporate will rather than the general will of the representative is more justified. It is very relevant today, as never before, and to warn Michels that elections are no longer a matter of free choice of the people, their e. ¶. Representatives, perfectly use the elections for their own purposes.

Moreover, today democracies are dying and obvious dictatorships have appeared in many countries of the world. Military coups and other methods of seizing power by force are now rare. Most countries have electoral democracies that hold regular elections. Democracies die, but in a different way. In the aftermath of the Cold War, the collapse of democratic regimes was caused not by military coups but by self-elected governments. In Venezuela, like Chavez, elected leaders overthrew democratic institutions in Georgia, Hungary, Nicaragua, Peru, the Philippines, Poland, Russia, Sri Lanka, Turkey, and Ukraine (Levitski & Ziblatt, 2018).

The democratic setback begins today at the ballot box. The way to win a fraudulent election is more dangerous than to seize power through a classic coup. Elections are held normally, tanks do not shoot in the streets, constitutions and other nominal democratic institutions are in place, people still vote, elected autocrats formally or facade maintain democracy, but core values are neglected.

Initial assessments of the many risks associated with the COVID-19 pandemic in terms of democracy have begun around the world in terms of holding democratic, fair and transparent elections. Elections are certainly an essential and important part of democracy. The risks associated with the pandemic, the diversity and number of elections, the size of the electoral cycle that can be disrupted, and the need for decision-making raise important questions about the future of democracy itself (Landman, 2020).

Maintaining a democratic order and continuing the normal rhythm of life has faced many challenges. At stake were two major values; Human life and health and democratic rights and order. According to the International Institute for Democracy and Electoral Assistance (IDEA, 2021), 65 states and territories around the world have postponed national or local elections due to a pandemic, with at least 33 countries and territories deciding to hold national or local elections as originally planned, despite Coronavirus fears.

The issue of emergency elections in the EU is relatively new. Deciding whether to hold elections under a state of emergency is not easy. Governments must take into account the many legal, technical and sanitary parameters and expected outcomes, as well as the constitutional mechanisms for planning and organizing elections and the conditions necessary to ensure proper election campaigns, so that democratic institutions function normally and fundamental human rights and freedoms are protected.

It shows how the causes of the democratic crisis are changing along with changes in modern policy understanding and practice, which is partly the result of the problems discussed above. If crisis is an inherent feature of democratic politics, no matter what form of policy it takes, we need a more referential democracy - a type of democracy that continually pushes its boundaries and operates in crisis situations with the logic of exclusion (Ercan & Gagnon, 2014)

Georgia is among the 111 countries where the state of democracy and human rights has not changed since the pandemic (Freedom House, 2020). The coronavirus pandemic is another factor that has affected the campaign for the 2020 parliamentary elections in Georgia, although it is still unclear whether this has had a beneficial effect on the government or not.

Elections and Democracy

Elections and electoral procedures are of special importance in the life of mankind. One of the defining characteristics of democracy is that it holds regular, periodic elections. This requirement is set out in Article 21 (3) of the Universal Declaration of Human Rights. Belief in holding elections means that citizens are given the opportunity to dismiss or extend the mandates of their representatives and leaders.

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At the same time, there are times when a natural disaster, famine or epidemic can mean that holding elections can pose a serious threat to people's lives. This problem exists in connection with the coronavirus (Covid-19) pandemic. Elections have suddenly become not only a democratic ritual but also an opportunity to spread infectious diseases.

Why is it that some countries pause in elections during a pandemic, while others do not during the Covid-19 pandemic? Decisions on extension or repeal are ambiguous, and the findings of the discussions are not always closely linked to the proven number of human infections, whether countries are democracies that remain strong or those that undergo a change in democracy (Asplund & James, 2020).

New research and findings from the international organization IDEA show that the relationship between elections and Covid-19 suggests that even elections can undermine democracy. For example:

- Activism may decline, especially among more vulnerable groups, undermining the principles of inclusiveness and equality in the electoral process.
- Proper implementation of a political campaign becomes impossible at a time when direct communication in large groups is restricted or prohibited;
- Public debates may focus only on the current health crisis, which hinders a broad discussion of other important topics;
- Unscrupulous government can use extreme rights restrictions to suppress opposition candidates or critical media and individuals, making elections in extreme conditions less free and less fair than they should be.

The right of citizens to participate in the formation of government structures is a universally recognized norm in modern society, as elections are the foundation of democracy and a necessary defining condition (Ginsburg & Huq, 2018). Elections are the main mechanism through which people participate in governing their country, in which way political leaders are elected and held accountable (Dahl, 1971; Lijphart, 1999; Lindberg, 2006; Landman, 2013; Webler & Tuler, 2018; Pzeworski, 2019). The ability of democracies to conduct elections is further reinforced by credible human rights legislation. In particular, to protect rights such as freedom of movement, the right of assembly, the right to form associations and the right to freedom of speech and expression (Dahl, 1971; Landman, 2013).

The increase in the number of democracies, despite the recent decline (Chu et al., 2020) compared to the “third” and “fourth” waves of democracy in the 1970s (Huntington, 1991; Doorenspleet, 2005; Landman, 2013), indicates that even during the pandemic, a large number of elections were held. Continents, and therefore political leaders, need to pay special attention to measures that reduce the most serious and potential risks associated with the spread of Covid-19 during the electoral process.

According to the final data, national elections were held in 28 countries in 2020, where a total of 88 million people voted, and in the midst of the pandemic, elections were scheduled for March-April 2020 in 22 more countries and national and local elections and federal elections were planned in 30 more countries from April to October. At a time when presidential elections in the same U.S. were scheduled for November 3, 2020 when all but the executive branch was in dispute, all seats in the House of Representatives and two-thirds of the seats in the Senate. Although some elections were scheduled for the period when the pandemic reached its peak, pandemic relief measures aimed at overcoming severe risks will still have a broad impact on all other elections around the world.

There are several ways in which a pandemic and government response can affect any of these processes.

- The virus can prevent voters from voting and affect overall activity.
- Deferment depends on the type of mode.

For example, in full-fledged or “imperfect” democracies (The Economist Intelligence, Unit 2019), procrastination can lead to controversy and disagreement (France, Italy, and Poland; USA 2020). Delay in hybrid systems (Levitsky & Way, 2010) could lead to increased political uncertainty and undermine the rule of law. Procrastination in authoritarian regimes (Schedler, 2006; Levitsky & Way, 2010) can create a power vacuum, abuse power, as well as emergency measures, further strengthening authoritarian rule, undermining the rule of law, and further threatening the state.

However, the 2020 elections have shifted to remote and digital formats, and despite restrictions, they have still played their part in democratic elections.

2020 Democratic Elections in Georgia in the condition of Pandemic

Georgia, as a new and fragile democracy, is located in the geopolitically important Caucasus region, which is a transport artery connecting Europe and Asia and a kind of bridge between these two different societies and cultures. Thus, Georgia's quest for freedom and independence is taking place against the backdrop of the influence of states on both sides of the bridge, as it is one of the "opportunistic targets" of the Russian hybrid war. Georgia is a strategic partner of the United States and the European Union and a NATO aspirant country that makes a significant contribution to Euro-Atlantic security. There is a public consensus in Georgia on the country's integration into the West, and it is characterized by good dynamics of democratic transformation. However, the biggest challenge remains the lack of an institutionalized system of good governance and the growing polarization of society.

At present, there is a debate in Georgia caused by Covid-19 on the issue of "health and economic confrontation" and the measures taken by the government to manage the crisis. In the political dimension, this is a right debate, but in terms of governance, the situation is much more complex and difficult (Kutelia, 2020).

During the first wave of 2020, the Georgian government was highly praised by the population for taking swift, tough, but transparent measures against covid-pandemics, as Georgia had one of the lowest mortality rates in the world, significantly increasing the ruling Georgian Dream's popularity ahead of the October 2020 parliamentary elections.

At the same time, the government has conducted quite successful anti-crisis communication with the population, which has had a positive impact on its rating. It is true that the current public health outcomes of the global pandemic in Georgia are generally good, but in the first three months of Lockdown, the Georgian government was criticized by opponents for not reviewing the measures as the situation changed and for maintaining a political reputation and for consolidating power.

The opposition criticized the government for a number of circumstances during the lockdown, in particular the fact that the Georgian Constitution does not explicitly state that a state of emergency can be declared when there is a substantial and imminent threat to the existence of the state and / or constitutional order.

Which does not meet the requirements of international law and the best practices of democratic states. There is a danger of an arbitrary or panicked declaration of a state of emergency.

In such a situation, the opposition parties agreed on joint actions and signed a declaration in the new parliament on the inadmissibility of a coalition with the Georgian Dream party. If the Covid Pandemic during the election period was a challenge for the government, it became an opportunity for revenge for the radical opposition.

Elections were held, voter turnout was high despite the pandemic. Georgia has passed the Democracy Test and the results have been recognized by the European Union Monitoring Mission and other international and domestic observers. 9 opposition parties crossed the election threshold and would have the most multi-party parliament in the history of Georgia. But the radical opposition party, the National Movement, led by Saakashvili, the former president of Georgia, who was an autocrat, began collaborating with other opposition parties to prepare for a new revolution that will pave the way for new elections. The opposition planned provocations in certain constituencies and the by it media controlled created the illusion that the government was using a pandemic and rigging elections. Votes were not counted as the opposition said the election was rigged and attempted to invade the Central Election Commission to disrupt the vote counting process. Protests began and 9 opposition parties that won the election boycotted.

The Covid-19 pandemic turned out to be a litmus test to understand how much Georgian democracy, society and the political spectrum have grown. It was especially interesting in this process that the Georgian society was more prepared to meet the results, to realize the risks and the opposition was left alone in the face of its own ambitions. People expressed confidence in the results and did not support the opposition. To provoke public protest, the leader of the United National Movement demonstratively removed the electric bracelet from his hand which he was done by a court decision and declared disobedience to the law, which meant his unconditional imprisonment. Naturally, the arrest of the opposition leader was seen by the West as a departure from autocracy. Moreover, due to the difficult political situation and pandemic in the Caucasus, the public became increasingly dissatisfied with the boycott of the opposition. There was an artificial inspiration for the political crisis, which eventually came to a standstill. And began

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a long and arduous process of negotiations mediated by the US and the EU to give the opposition a responsibility and entered parliament.

The case of Georgia shows that the state of emergency can be used not only by the ruling elites to prolong the regime and seize power, but also to seize power by revanchist and radical forces and force governments to meet their demands. There was hope that there would be a lot of pressure from Western countries on the Georgian government to compromise with the opposition, that the president was forced to issue an unprecedented pardon to a criminal to comply with an opposition party ultimatum. Moreover, the EU paid bail to the arrested leader of the opposition party to get him out of prison, even though the detainee himself and his party could pay the bail.

Overcoming the current political crisis against the background of the pandemic was mediated by the ambassadors of the European Union and the United States and with the participation of the President of the Council of Europe. To date, however, the agreement has not been fully implemented, and most interestingly, the government annulled the document 100 days after it was signed, citing that the document failed to fulfill its main function - the radical opposition did not sign the agreement and failed to reduce polarization. The West has done everything to save democracy in Georgia. Despite its shortcomings, Georgia has not even considered moving away from democracy.

There are various ways to maintain democracy in order to keep it in the required bed, and many countries during the global pandemic have shown significant innovative approaches and quick thinking to adapt to the new scenario.

Different approaches to managing elections during a pandemic raise many questions about what threatens democracy. The spread of Covid-19 around the world encompasses a wide range of risk issues. Including in relation to democracy and public participation (Webler & Tuler, 2018). The pandemic is a serious challenge for countries to ensure genuine and transparent elections. Without well-thought-out measures, elections can have a significant impact not only on public health but also on the legitimacy of elections. The example of Georgia clearly shows that elections may be held at a high level in pandemic trials, but there is a problem with the credibility of the results, which can be abused by both the ruling elite and the revanchist and radical opposition. Which also poses a risk of establishing autocracy.

Society and Pandemic Democracy - Citizen-centered democracy

We face the fact that capitalism and democracy are no longer compatible and that the main challenge lies in the nature and quality of the constraints we place on the market. An important challenge is the elite bureaucracies that put themselves above democratic politics.

What is strange about the behavior of these elites? As if nothing but the silent assertion that technocratic centralization is necessary for the proper functioning of modern societies.

The spread of Covid-19 virus has also had a significant impact on public life. The society was filled with fear and uncertainty (Sankar, 2021), which was caused by the so-called infodemics and a vague prospect of tackling the unknown virus, tight lockdowns and closed borders, economic stagnation and political tensions in many parts of the world. This was accompanied by a number of restrictions on democratic rights, including restrictions on freedom of movement, association and assembly, education and labor rights, as well as religious rites and, to a lesser extent, participation in elections and voting.

Covid-19 has negatively changed the attitudes of ordinary voters and the election process in general. Optimism has fallen: The share of people who think the government is on the right track has dropped significantly. The pandemic has given new impetus to issues such as access to health care, inequality and security, and has replaced the favorite topics of politicians with the pandemic and even disappeared from view. Voters are basically the same, but the context has changed for the 2020 election (Ball, 2020).

However, questions were raised as to whether only through democracy can society provide a solid balance between needs and priorities; Between fighting the spread of the virus and protecting economic security; Between implementing effective crisis response responses and protecting the civil and political rights of the people in accordance with constitutional norms and guarantees?

Democracy does not guarantee competent leadership and good governance. Democracies predominate among the countries that deal more effectively and contain this virus. However, it is also a fact that the main advantage of democracy is its ability to self-regulate.

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Numerous analysts point out that the impact of the pandemic on political rights and civil liberties in countries will be largely negative for the next three years. During the coronavirus pandemic, four major problems were identified:

- Lack of transparency and information from the government regarding the virus,
- Growing corruption,
- Insufficient protection of the weak part of the population
- Abuse of power by governments

The measures taken to protect public health during the Covid-19 pandemic in Georgia were generally developed within the framework of inclusive processes and were positively assessed by all parties involved. These measures included the requirement for voters to wear protective gear by masked individuals, election administration officials, observers, and the media, and to measure their temperature as they enter the polling station, as well as to regularly disinfect polling stations.

The coronavirus has hit an already fragile system. It would be a mistake to think of a pandemic as something very different from other problems in our electoral system (Hassen, 2020). The pandemic exposed the shortcomings of Georgian society, as well as one thing: there is a great deal of polarization. The vast majority of citizens supported the restrictions, believing that it was far more important to eradicate the virus than elections or to improve the economy.

Conclusion

When democracy is in crisis with the global pandemic crisis, we cannot view the problem as one of a series of processes that simply need to be understood and sorted out. The answer to the question of whether the global process of democratization will deepen or whether society will return to the past also depends to some extent on what the reality will be in the post-Soviet world. The global distribution of Covid-19 has already had an impact on the health and well-being of the world's population. And electoral decisions will have a significant impact on the health of democracy in the future.

When society finally emerges from isolation and evaluates the results of a pandemic and ideas that have not survived the crisis, I think, one idea really cannot stand the test of time - the US idea of a first democratic state as a model

economic, political or cultural country for world democracies . The revival of the liberal democratic ideals of the past is no longer enough to revive Western democracies today. Not only the restoration of democratic norms, but also their expansion is important in an increasingly diverse society.

Given the dangerous erosion of democracy in Georgia, a more holistic model of democracy is needed, the same hybrid model that includes deliberative, participatory, direct and representative forms of democracy, where everyone can act to overcome the shortcomings of others. Within this “dynamic democratic ecology”, there is an urgent need for participatory democratic innovation . Modern democracies urgently need to accelerate progressive change and overcome dangerous polarization, paving the way for greater sustainability and human development. The ability of democracy to reconsider itself and the success it achieves in doing so may be our only hope in developing the slow facts, the future and the rest of the policies necessary to overcome many crises.

The transformation of COVID-19 virus from China to Europe and other parts of the world has forced people to continue social divisions, which has had an impact on social integration. The mode of human relations, interdependence and interaction has changed due to the emergence of epidemic conditions in social events. I think we need to revisit democratic institutions to make them more inclusive, pluralistic and consensus-based. Only then will democracies be able to effectively counter the threat of the emergence of despotic autocratic leaders, as has so often been seen in the last ten years, and also confront global threats, including pandemics and climate change.

Authoritarian leaders view the COVID-19 crisis as a new field of political struggle and seek to undermine democracy as a weak political system and deny its enormous achievements over the past few decades. Democracy is in jeopardy and the people who care about it must show the will, discipline and solidarity to protect it.

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5

THE FOURTH TRANSFORMATION IN MEXICO. TRAPPED BETWEEN THE NEOLIBERAL CAGE AND THE IMPACT OF COVID-19

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Abstract

On December 1st, 2018, Andrés López Obrador began his term as president of Mexico facing a deep national economic crisis with an 11 trillion pesos (50% of GDP) debt, 50.9% of workers involved in the informal economy, 52.4 million poor people, and growing violence throughout the country. Given this, his promise to promote a reorientation of neoliberalism through a proposal based on national sovereignty, employment, and well-being for all as the base of the Fourth Transformation of the country, represents serious problems, which increase when continuing with the same neoliberal austerity policy in force for 36 years. Thus, in February 2020, when Covid-19 broke out in the country, the same model continued to be applied with the assistance modality towards young people and the elderly, also named as the new “electoral reserve army”. The impact of the Covid-19 pandemic on the national economy led to a -8.5% GDP collapse in 2020, the loss of 2.3 million jobs, and a health system exceeded by the 2 million infected and 200 thousand deaths at the beginning of 2021, the Fourth Transformation promise is not only a prisoner of neoliberalism but also of health and economic impact of Covid-19.

Keywords: Welfare neoliberalism, Fourth Transformation, expansive economic policy, “electoral reserve army”

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THE FOURTH TRANSFORMATION IN MEXICO. TRAPPED BETWEEN THE NEOLIBERAL CAGE AND THE IMPACT OF COVID-19

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Introduction

For over three decades, the political fight of Andrés Manuel López Obrador (AMLO) for the presidency of Mexico maintained an anti-neoliberalism speech and its economic, social, and political consequences in the country. During the 2018 elections, which he won to become the president of Mexico, he promised to promote the Fourth Transformation (4T) as a continuation of the struggle for the independence of Mexico (1810-1821), the Liberal Reform (1857-1961), and the Mexican Revolution (1910-1917). For his 4T, AMLO promised to reverse neoliberalism and to promote a profound transformation of the economic, political, social, and institutional administration of the country, focusing on national sovereignty, internal market, equity, employment, and the well-being of the entire population. However, after two years of administration, the 4T's objectives are far from fulfillment, since the Mexican economy and the 4T are still prey to neoliberalism through its assistance to the young and the elderly, the so-called "electoral reserve army", but without a national policy for employment to eradicate poverty and generate endogenous conditions for economic development.

In this paper, the analysis will be on how, for over two years of AMLO's government, the Mexican economy continues to be under the neoliberal model in the welfare modality and with austerity as a central feature. This situation has been aggravated by the health and economic consequences of Covid-19 in 2020 and 2021, and caused the 4T promise to be caught between the neoliberal cage and the serious effect of Covid-19. So, the national economic dynamics depend fundamentally on the recovery of the United States' economy and the increase in exports to the country.

Neoliberal balances in Mexico after 36 years of existence

Arturo Huerta points out that fiscal policy has relegated the objectives of economic development and job creation. There has been no room for the so-called populist goals that involve addressing the national demands, but rather the priority has been on the low inflation and fiscal austerity demanded by the financial sector and the business leadership. Anything that questions the prevailing economic model and favors employment, growth, and welfare policies for the vast majority classifies as populism. The opponents of populism are the defenders of free trade, more market, and less state. They do not recognize that these policies

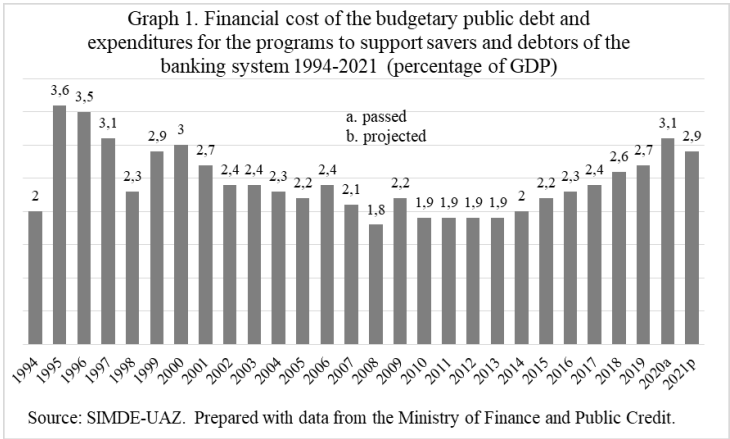
have led to low growth, the deterioration of the productive sphere, and to depend on the inflow of capital, which places us in a highly vulnerable context. They defend current policies because they have favored them and do not care that they have taken us to recurrent economic crises and the current climate of violence.

Huerta highlights how the economy was held back by the contraction of the domestic market, which derived from the restrictive fiscal policy and the high interest rates, underemployment, low wages, and income inequality. Added to this is the growth in imports, caused by production lags, free trade, and low growth in imports, which will be accentuated by the tariff policies established by the United States. The economic policy sovereign management was lost looking to overcome problems, recover productive development, reduce the foreign trade deficit, and meet national demands. The situation aggravated because of global economic uncertainty, the trade disputes between the United States and China, and the delay in the T-MEC approval. This researcher suggests that, by keeping the same economic policy, the country will continue to face the same problems (2019, p. 121). The promises that the greater the market share and the lower the State's participation in the economy would mean an increase in efficiency, productivity, and economic growth, have not been accomplished. Those favored by these policies have been the financial sector, large capital, and transnational companies. The first, because the macroeconomic policy of "stability" values its financial wealth; and the second, because they have expanded their participation in the economy by appropriating state companies, and have started to invest in sectors where the state has stopped or has reduced its investment, and transnational companies because they have appropriated the domestic market and command the growth of exports. Productive and external sector imbalances have increased, as well as indebtedness levels and income inequality.

The report of the Ministry of Finance and Public Credit shows that the financial cost of public debt, similar to the 1997 figure, represents 3.1% of GDP in 2020 with a 3.8% estimated reduction for 2021 but a 5.5% external debt increase (Graph 1). "From the amount of resources requested for the fiscal year 2021, it is estimated that 74.7% will be for interests, commissions, and expenses coverage of the federal government debt (Branch 24); 1.6% will be channeled to cover the cost of programs to support savers and debtors of the bank (Branch 34), and the remaining 23.7% to the financial cost of the PEMEX and CFE debt" (SHCP: 163).

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One of the components of total net spending is programmable spending, which includes the expenditures that the Federation uses to provide public goods and services to the population, and which amounts to 4618.3 billion pesos for 2021; only 291 billion (6.3% of programmable spending) will be for priority programs. Migrants are not a priority of the government’s agenda (Table 1).

Table 1. Total net expenditure of the budgetary public sector (project) 2021

Resources for 2021	Billions of pesos		Billions of pesos
Programmable	4618.3	1.3% > in real terms than the level of spending approved in 2020	
Non programmable	1677.4	-4.7% < in real terms than the level of spending approved in 2020	
Priority programs		Budget projects	
Pension for the elderly	135.1	Tren Maya	36.3
High school scholarships	33.2	Aeropuerto General Felipe Ángeles	21.3
Primary school scholarships	31.9	Mantenimiento y conservación de carreteras	8.2
Sembrando vida	28.9	Tren interurbano México-Toluca	7
Jóvenes construyendo el futuro	20.6		
People with disabilities	15.5		
Producción para el bienestar	13.5		
La escuela es nuestra	12.3		
Total	291		72.8
% of programmable expenditure	6.3%		1.6%

Source: SIMDE-UAZ. With data from the 2020 report of the Ministry of Finance and Public Credit.

According to the analysis by Arturo Huerta (2019), the Mexican economy and AMLO's government will continue to be prisoners of the neoliberal cage with no chance of fulfilling the 4T promises: economic development, employment, and well-being, if they do not break that cage and dare to design actual public policies for national economic development with the State and public investment as its main instruments. According to Huerta, by prioritizing the free mobility of goods and capital, as well as the exchange rate stability that the latter requires, the government has no margin to create a more flexible monetary and fiscal policy that achieves the objectives of economic growth, job creation, and well-being of the population, therefore, the current economic, political, and social problems of the country will worsen.

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Due to the above, continuing with fiscal austerity (zero fiscal deficit) implies continuing the privatization of the economy, contracting the internal market, public services, and economic activity, which increases unemployment and misery. The low dynamics of accumulation, imbalance in the external sector, and the high levels of indebtedness of the public and private sectors are the consequences of the fiscal austerity policy, high interest rates, accelerated trade liberalization, and the free movement of existing money capitals.

With fiscal austerity, high interest rates, and the neoliberal policy, there is no possibility of boosting investment and moving forward in the new technological wave, neither to face the productive lags nor to increase employment. Huerta concludes (2019, p. 122) that if the austerity policy is not modified and the sovereign management of the economic policy is not recovered to address national challenges and demands, the country will be condemned to backwardness, to permanent deterioration of the standard of living of the population, underdevelopment, and economic, political and social instability.

2020: the neoliberal cage of the Mexican economy and Covid-19

The Mexican economy began 2020 with a fall in GDP, regarding the previous year, with all the ravages of 36 years of neoliberalism in the administration of the national economy, an enormous weight of public debt, recessive trends, significant budgetary problems, and the dismantling and commercialization of the national health system. Thus, when Covid-19 broke out in Mexico at the end of February with rapidly perceptible health, economic, and social consequences, it was recognized that the effects would be of great dimension for the country. The above led to a debate about the strategies to face the pandemic, the economic confinement to stop its expansion, the new economic performance of the Mexican State, and the economic reactivation. At the health level, the Ministry of Health quickly assumed the leadership of the national strategy against the pandemic, but, at an economic level, the Ministry of Economy or an inter-ministerial commission evaded the management of the emergency strategy against Covid, the confinement, and the national economic reactivation. President López Obrador defined and reiterated that austerity would continue as a central feature of his administration. So, with the fight against corruption as a collection mechanism, he refused to promote a tax reform but announced an increase in the assistance

programs of his government and in microcredits to strengthen the “electoral reserve army” in the 2021 and 2024 electoral processes.

Throughout 2020, the president’s stance is reiterated by renouncing an expansionary spending policy to face the effects of economic confinement and actively promoting economic recovery. In fact, the proposals from business organizations and the International Monetary Fund to create a national alliance for economic reactivation based on public investment and fiscal and monetary subsidies are disregarded, even resorting to the temporary increase in the debt to strengthen the national economic recovery. In the same month, July 2020, the ECLAC stated that Mexico and Latin America face a decade of economic and social development loss with a GDP decline equivalent to that of 2010 and a decline of 15 years in the fight against poverty. In what refers to Mexico, from 41.9% to 49.5% of the population, from 53.6 to 63.3 million people, and from 14 to 22 million people in extreme poverty. Alicia Bárcena, director of ECLAC, considers that the crisis is deep, structural, and long-term, so it is necessary to reinforce and broaden the expansionary fiscal and monetary policies carried out as an emergency to alleviate the crisis. For her, we are in a lost decade, and it is a priority to maintain an expansionary, sustained policy in which the State’s central role is noticeable. Also, promoting economic reactivation “will not be possible with austerity measures (...) emergency expenses and reactivation expenses are complementary and not substitutes.” She noted that the fiscal spending of Mexico is 1.1% of GDP (one of the lowest in the region), highlighting the effort from the Mexican government who looks to achieve a structural strategy that benefits the population with the lower income. However, in the same way, Bárcena mentioned that there are fiscal limitations to face if the government would look to propose an emergency universal basic income (transfer of a minimum welfare line) since it would require a 2.2% of GDP which, if sought to expand to the entire population with fewer resources, would exceed 10% of the national GDP (Villanueva, 2020).

Within the framework of the national debate between the federal government and the business sector who proposed a strategy for economic reactivation, since the beginning of the pandemic, with a fiscal and monetary support package, greater public investment, and an increase in debt, Banco Bilbao Vizcaya Argentaria (BBVA) stated: the country will have a “slow and tortuous recovery” after the Covid-19 crisis. Anticipating that the economy will contract 10% of GDP, resulting from low investment levels, a drop in consumption, and noticeable job

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loss. Carlos Serrano, chief economist at BBVA, argues that it is a reversible scenario if the government can implement the following actions: make the most of the new Agreement between Mexico, the United States, and Canada; provide certainty to investors, change the business plan of *Petróleos Mexicanos*, and address the social inequality levels. Serrano supports the approval of a tax reform in the Mexican Congress that signals the markets to know that additional expenditure can be financed with higher collection (Gutiérrez, 2020, p. 16).

At the beginning of August 2020, Arturo Huerta (LJ: August 4) analyzed how the tax and monetary authorities have repeatedly indicated that Mexico is incapable of increasing spending or reducing the interest rate like developed countries to face the pandemic and the economic crisis. For him, if this has been the case, it is because Mexico has decided to stabilize the exchange rate, disregarding the 1995 decree to work with a flexible exchange rate. Countries such as the United States, the United Kingdom, Japan, Australia, Canada, among others, work with a flexible exchange rate so that they do not have to work with high interest rates and fiscal austerity. They can lower the interest rate and expand public spending to fight the pandemic and boost economic growth. On the contrary, the Bank of Mexico and the Ministry of Finance implement everything in their power to keep a stable exchange rate, which creates high interest rates and fiscal austerity, acting in favor of financial capital at the expense to stop having an economic policy that counteracts the crisis we are facing.

On Friday, August 28th, 2020, the Secretary of the Treasury, Arturo Herrera, anticipated that the crisis would extend to 2021. He said that he would present a more restrictive fiscal package, compared to that of 2020 and two years before, to the Chamber of Deputies no later than September 8th. He pointed out that it would be a “very responsible” package, but one wonders, responsible to whom? For the financial sector? For those who benefit from the reduction of the state in the economy? It will be irresponsible for those who are looking for a job and are unable to find one, for companies who want to increase their sales and production because, in the face of the greater contraction in public spending, there will be a greater drop in demand, sales, production, employment, and income, not only for companies and individuals but also for the government since, by spending less, it contracts the national income causing it to collect less. The Secretary of the Treasury called “to learn to live with Covid and adjust economy and finances so as not to go into unemployment.” The problem for Huerta is that, while

Covid remains, there is no possibility of resuming activities, especially with the restrictive adjustment of public finances, which will not prevent unemployment but will accentuate it (LJ 2020: September 1st).

The president stated that he would patent his “vaccine” of an economic policy to support the popular economy and not the large companies by resorting to debt because it is already reactivating the economy. However, Huerta points out that it actually is not the case; Banxico’s prediction for GDP in 2020 is of a 12.8% drop, and The Economist Magazine announced that Mexico would be the last country to achieve its recovery. By continuing the restrictive fiscal policy, not supporting companies, and keeping the high interest rates, he undermines productive capacity. This will lead to a drop in economic activity, similar to the one in 1932 of 14.2% of GDP, and will imply serious economic cost for companies, families, and the government and its party, despite its social policy, which does not stand out in what refers to reactivating the economy.

2021: The Mexican economy in the face of the persistence of Covid-19

Orlando Delgado Selley (LJ 2020: September 3) points out that during 2021 Mexico will experience the strongest economic crisis since 1932. Faced with the statements of the Secretary of the Treasury who said that there would be greater budget cuts for the following year, Delgado highlights Ricardo Monreal’s statements: “the Congress of the Union must promote a progressive tax reform to face the challenges brought to the country by the Covid-19 pandemic,” and the Senate is already working on it within the framework of the discussion of the Income Law.

Delgado Selley believes that next year will be rough, but not as 1932. However, the fact that public finances have no room for maneuver is relevant. Public spending, contracted since the arrival of AMLO and at the beginning of the impact of the pandemic, suffered a further reduction of 560 billion in 2020, as stated in the Second Presidential Report. Therefore, as proposed by Senator Monreal, it is urgent to agree on a tax reform that deepens progressivity in such a manner that those who earn more pay proportionally more taxes. The depth of progressivity proposes to concentrate the increase in the tax burden in the decile with the highest income, but especially in the one per cent that receives the highest income in the country, for which is time to implement a progressive income tax fiscal

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reform. The country needs a State who is capable of protecting those who have the least. The best way to move towards a better country will be to get healthy requirements funding through progressive taxes.

For his part, León Bendesky (LJ 2020: September 14) highlights how the focus of the economic policy is not on growth, in circumstances of a deep drop in the expected product for this year, of a massive bankruptcy of businesses, and enormous loss of jobs; a process whose negative impact, although there is a quantitative rebound, is still in development. The government has consistently stated that product growth is not its main objective. The Package proposal is conventionally made, in an unconventional scenario, one of deep economic, social, and public security crisis. But these are not normal times; concepts such as primary “equilibrium” in public finances, or financial “stability”, are commonly used. With such an austere budget, there are no signs of economic recovery. The budget priority remains to maintain fiscal discipline at all costs.

Israel Rodríguez points out that the 2021 budget has to cover several unavoidable expenses, such as personal services for 1.2 trillion pesos; current expenses and transfers for another 1.2 trillion; 1.5 million for participation and the financial cost of the debt; 950 billion pesos for pensions, and an additional 350 billion for the social programs of the current administration, which adds up to a total of 5 trillion 200 billion pesos.

Once the Ministry of Finance officially published the 2021 Expenditure Budget and its justification, Arturo Huerta (2020: September 14) stated that, despite the crisis, the fiscal austerity policy would remain during 2021. The problem, for him, is that the implemented fiscal austerity policy has restricted economic activity, increased unemployment, and decreased the income of companies and individuals despite the government’s social policies and strategic megaprojects. The current economic policy affects financial and economic stability by reducing national income and the capacity to pay the debt. As much as they reiterate that the Package aims at protecting those who have the least, it has not yet been visible. Unemployment increased, and wages participation in national income has reduced; the consequences are more people with low resources and greater income inequality.

The 2021 Economic Package contemplates a significant increase of the budget for the Santa Lucía Airport (296.8%) and the Mayan Train (48.5%); for their part, Pemex and the CFE will have 21.9% of the programmable spending, Social

Security and Health 30.6%, Agriculture 1.7% of programmable expenditure, which leaves 1.6% for Economic Development and the Environment. These data show that the impulse of the productive dynamics continues marginalized and that there is a decrease in the participation of multiple Secretariats, and Participations (6.7%) and Contributions (1.1%) to States and Municipalities, whose financial problems and spending will worsen. From this perspective, Huerta argues that the strong economic contraction, high unemployment, and the continuation of the pandemic show that the implemented fiscal policy has accentuated the problems instead of counteracting them. The Economic Package is optimistic in forecasting an 8.0% drop in GDP for 2020 and a 4.6% growth for 2021. Huerta thinks that this will not happen because it does not include public spending growth. Programmable spending will fall 1.0% in 2021, so there will be no growth in demand to offset the drop in exports. Given the fall in economic activity in the United States, and the rules that the Trump administration established in its favor, such as the protectionist measures, the T-MEC will not reactivate exports.

Finally, Huerta contradicts the official stance that considers a rapid national economic “V-shape” recovery because it lacks well-founded arguments, given the fall of exports, of private investment consumption, and public spending. Despite the application of the vaccine next year and the economy reopening, revival will not happen as many companies have gone bankrupt. Since the government did not help to prevent it, there will be a reduction in productive capacity, growth opportunities, and job creation; in other words, it will be a longer recession and harder to overcome.

The debate on the economic policy of austerity, its recessive impact, and the need for a public investment expansion policy at the end of 2020 in Mexico, the fact that the International Monetary Fund (IMF) is in favor of the latter option acquires relevance. The FMI warns that the gains of the past decade will be lost and that the old problem of low economic growth will worsen with 12 million lost jobs during the first months of the Great Quarantine, leaving 4 million people unemployed by October and an increasing poverty proportion, from 36 to 48%. This organism observes a two-speed recovery: the fast, manufacturing driven by external demand, and the slow, dependent on domestic demand. Under these conditions, the IMF projects a 9% GDP reduction in 2020, a 3.5% growth for 2021, and 2% for the following years. Therefore, it will take several years for employment, income, and poverty to regain pre-pandemic levels.

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From the IMF perspective, this recessionary scenario can reverse to give way to a robust recovery with strong, long-lasting, and inclusive growth through the application of a short-term fiscal and monetary support package and medium-term measures to increase fiscal sustainability along with reforms to boost investment and growth. Among the medium-term reforms, the Fund proposes fiscal reform that increases the maneuver margin of public finances by generating the necessary resources to expand public investment and social expenditure. In their estimates, the implementation of the proposed package could boost GDP growth by four percentage points and, in the medium term, reduce the public debt-to-GDP ratio. The tax reform proposal involves four components: income, property, value-added, and gasoline taxes. Regarding the former, one must remember that, due to high informality and inequality, it is low for Mexico in comparison to international standards. The IMF argues that increasing taxes could generate unlimited additional income, so it is important to broaden the tax base and streamline inefficient and regressive tax-exempt expenditures, thereby lowering the tax threshold for high income (Delgado Selley, 2020: October 15th).

Delgado Selley highlights that the government's response reiterated that it would not create a tax reform. Its argument, stating that the strategy is "that those who deliberately evade, pay" and that "they will not increase the tax burden on compliant taxpayers", does not resolve the requirements raised in a situation in which the responsibilities of the State have substantially increased. Avoidance and evasion are indeed considerable, between 2-2.5% of GDP, and reducing it is essential, but the income it generates will not be annual. A tax reform that increases the burden on large companies and high-income taxpayers is a permanent source of additional tax revenue that would contribute at this juncture, that is, in the short, medium and long term. In 2021 it will be impossible to recover the economic growth before 2018 due to the impact of Covid-19 and the absence of a national economic reactivation strategy.

From Huerta's perspective, what determines economic growth for the coming years are not visible, that is: a) management of monetary, exchange, and fiscal policy; b) behavior of the private investment; c) foreign investment and exports. It seems that the economic policy will continue as it is along with the interest rate differential to curb the outflow of capital and stimulate its inflow to maintain the nominal stability of the exchange rate. Likewise, fiscal austerity will continue trying to ensure the conditions for debt repayment, and such policies act

against economic growth. This means that the pressure on public finances continues, both due to the high cost of domestic debt, as well as to the lower tax collection derived from lower economic growth, which prevents the government from increasing spending and investment looking to resume growth. This situation leads the economy to depend both on investment and private sector spending, as well as on exports and capital inflows.

On January 13th, 2021, the Secretary of the Treasury stated that some countries massively increased their public deficit by increasing their debt between 10, 20, and up to 30% of GDP, subsequently achieving interest rates close to zero. However, Mexico cannot afford these luxuries and opted to apply fiscal austerity measures. The secretary added that “for an emerging economy it is difficult to apply the same canons as advanced economies” and “when the Mexican government goes into debt by issuing a ten-year bond, the interest rate is close to 6% so, if we would have borrowed, for example, 20 or 30% of GDP, it would have cost us around 400 billion additional pesos.” Arturo Huerta (2021, January 19) answered the above by stating that the Secretary of the Treasury should not have to resort to the financial market to place debt at a rate of 6%. The current crisis should eliminate the restriction that prevents Banxico from buying direct government debt to not have to resort to private markets and pay high interest rates; rather, it should be capable of only spending the necessary to combat the pandemic, support companies, and create jobs to stop the crisis.

Huerta highlights that those 400 billion additional pesos that would have to get paid for contracting greater public debt, at rates close to 6%, would represent 1.5% of GDP that would be reached until the end of 2021. If the government increased deficit spending and the amount of debt between 20 and 30% of GDP, the economic activity would increase by 10% by 2021, which would also increase tax collection and might cover the cost of the debt, it could even reduce its amount and the debt-to-GDP ratio. According to Huerta, authorities must evaluate public finances based on their impact on national economic activity and not on fiscal balance and the non-increase in debt. Decision-makers have to consider that all global crises have been overcome through greater liquidity, injected by central banks, and greater public spending to support businesses, employment, and family income. By not carrying out these actions, Banxico and the Treasury will not only be responsible for the fact that the income of companies and individuals will continue to fall, but also for the bankruptcy of companies along with the

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growth of overdue portfolios that, in addition, will lead to a banking crisis. All of the above further reduces the potential growth of the economy, which condemns us to backwardness and a sustained economic crisis.

At the end of January 2021, the report was that Mexico closed 2020 with a record surplus in foreign trade, presenting a favorable balance of 34 thousand 476 million dollars due to a fall in imports compared to exports due to the pandemic. It highlights that agricultural exports exceeded oil companies. On the same date, the IMF announced a weak advance of the Mexican economy due to its “conservative” budget, which had no changes in financial policy due to the crisis and the risk of having weak recovery (Villanueva: La Jornada, January 29). This institution estimates that the national debt grew almost 10 points of GDP last year, which is equivalent to 63% of the total economy, to continue in the same way during 2021. With this, the fiscal balance deficit rose to 5.2% of GDP in 2020 and will drop to 3.5% in 2021. One reason for the rebound in debt is the contraction of economic activity in 2020, calculated at 8.5% by the IMF. Although it does not grow in nominal terms, the amount of the liability is greater as a proportion of a smaller economy. Another cause is the depreciation of the peso, which increased the debit's value in national currency, as the Secretary of the Treasury stated (Villanueva: La Jornada, January 29th).

Strikingly, at the beginning of 2021, when the debate about the different options to reactivate the national economy grew, there was an announcement that remittances sent by Mexican migrants to the country were the highest in history, representing 40.6 billion dollars. It was a consequence of the economic recovery of the United States, the increase in the minimum wage, and the different fiscal supports provided by this government. On the contrary, in February, the report was that both Mexican citizens and companies sent 21 billion dollars to banks in the United States for the last two years, according to information from the Federal Reserve, the central bank of that nation. In fact, in November 2020, the accounts of Mexicans in that country totalled 93 thousand 618 million dollars, which is equivalent to 84% of the external debt of the Mexican government that, according to the Ministry of Finance, reached 111 thousand 62.3 million dollars last December (González Amador, 2021: LJ February 13th).

At the beginning of March 2021, León Bendesky (LJ, March 1) expressed his concern about the stubbornness of the Mexican government in continuing its

economic austerity policy without acknowledging the profound changes provoked by the pandemic and economic crisis, requiring a radical turn in the administration of the country. The government has strictly adhered to its infrastructure projects, its fiscal austerity policy (since 2019), and its speech. But the reality changed in March 2020, and the chosen adjustment has questionable points. One has to do with managing the pandemic itself, expressed in a high number of officially recognized deaths, over 185,000. Another is the social effects on the health system, on users, and all workers in clinics and hospitals. At an economic level, the impact is traumatic because productive activity collapsed, resulting in -8.5% of GDP in 2020; second consecutive year of decline and the worst since 1932, as several authors have pointed out before.

Bendesky highlights the insufficiency of public intervention at the budget level when facing the impact of the pandemic, which has been rather negative on employment, income, and poverty, whose estimate by CONEVAL is 10 million more poor people. Additionally, the lack of political sensitivity in recognizing the complexity of the new pandemic reality and the urgency to overcome neoliberal orthodoxies indicates the absence of a clear and consistent comprehensive information system, from the federal government, on the health and economic impact of the pandemic in public actions, as well as the effect on the control of Covid-19, the economic reactivation, and, particularly, on employment, income, and well-being of the population.

Given the various forecasts of better economic growth for Mexico during February 2021, two central elements stand out: firstly, the external sector and the improvement in the current account balance, linked to the expected recovery of the US industry that would help the Mexican export industry, especially the automotive industry. Secondly, especially relevant, the central bank's approach to job changes. This year the estimated amount of new jobs is between 250 and 570 thousand, a significant increase compared to the previous estimate, which had a range of 150 to 500 thousand. In this sense, the occupation is far from complete, on the contrary, a lot of slack translated into poverty.

In the complex economic situation of Mexico, Bendesky highlights the importance of the economic reactivation plan of the Biden government in the United States with 1.9 trillion dollars on Mexican migrants employment and remittances sent to the country that benefits 1.7 million households, a situation that led Bendesky

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to suggest that economic growth will be subsidized from that country. A scenario in which employment plays a central role; in 2020, the number of jobs affiliated with the IMSS was 19 million 773 thousand 732; 86% permanent, 14% temporary. That year, formal positions decreased by 647 thousand 710, that is, 3.2%, which reflects the insufficiency of the government support for the vulnerable population and with a long trend of falling investment. In December 2020, the aggregate spending item fell 12.9% compared to the same month, November 2019, showing the conditions of the economy since that year and the severe negative impact caused by the pandemic and public policy decisions. The above confirms that the recovery of the Mexican economy will depend on what happens in the United States in the absence of decisive changes at the domestic level, but there will also be collateral effects on inflation, on the value of the dollar, the prices of Treasury bonds, and the interest rates.

On March 1st, at the inauguration of the 84th Banking Convention, the Secretary of the Treasury, Arturo Herrera, said that the institution had divided the crisis into four stages: confinement, reopening, start of the vaccination program, and the current economic recovery. He announced that there would be a 5% GDP growth, with the banking system as one of the engines of economic recovery, but will the vaccination process that would allow us to overcome one of the most acute crises that the country has experienced since 1932 (Rodríguez, 2021 LJ, 12 March).

For Alejandro Díaz de León, governor of the Bank of Mexico, the Covid-19 pandemic implied “considerable risks” for the financial system that led to extraordinary measures to maintain orderly behavior, provide greater liquidity, and strengthen financing. From his perspective, as a result of the pandemic, the Mexican economy faced a combination of three shocks: financial, supply, and demand, for which the central bank had to adapt its strategy to conduct the country’s monetary policy promptly and prudently. The central institution has fulfilled its mandate to maintain low and stable inflation, reflected in the quality of life of Mexicans: “That is the best contribution of the bank to national development, and to the objective of a more vigorous and equitable economic growth and sustained in time “(Carbajal, LJ March 12).

It is important noting that Díaz de León recognizes the existence of important risks in the global economy and markets. These risks may be by multiple factors

such as the new outbreaks of Covid, problems in the global vaccination strategy, and the impact of the increase in the interest rate due to the strong fiscal stimuli and the economic reactivation plan in the United States with 1.9 trillion dollars, 8% of its GDP. The above explains the growth forecasts of 6.5% in its GDP for this year, with an expansive policy for public investment and a different package, from the orthodoxy of austerity applied in Mexico, of fiscal and monetary subsidies for companies.

For Daniel Becker, the new president of the Association of Banks of Mexico (ABM), the Mexican economy is in recovery, but with latent risks such as faring uncertainty due to the pandemic. Hence, greater certainty is needed by demonstrating commitment to build a robust rule of law and to implement favorable actions for economic activity. This may make the difference between a fast and robust, or a slow and marginal recovery (Gutiérrez, LJ 2021, March 13).

At the closing of the 84th Banking Convention, President Andrés López Obrador guaranteed banks and companies that his government would not change the rules for continuing their operations without obstacles since he is in favor of doing business without corruption and with a reasonable profit. He noted that Mexico has been able to resist the “tremendous” effects of the pandemic thanks to a strategy that allows recovery and growth, and recalled that last year the economy fell -8.5% of GDP, compared to 2019, but without hiring more debt. He also highlighted that the Presidency estimates that growth for this year will be 5% of GDP (La Jornada, March 13).

Conclusions

After two years and three months at the head of the Mexican government and an economic policy characterized by inherited debt, austerity, low growth, and the economic and social consequences of 36 years of neoliberalism, which increase by the national impact of Covid-19 and the lockdown in 2020, it is clear that the promises of the Fourth Transformation will not be fulfilled. These involved: the reorientation of neoliberalism towards a national development strategy with employment and well-being for all and with the State as the manager, expansive economic policy to manage fiscal, monetary, exchange rate, and public investment policies as support for the country's regional and sectoral development.

THE FOURTH TRANSFORMATION IN MEXICO. TRAPPED BETWEEN THE NEOLIBERAL CAGE AND THE IMPACT OF COVID-19

Rodolfo García Zamora, Selene Gaspar Olivera

The López Obrador government and his Morena party have wasted two junctural elements that made it possible in 2019, 2020 and 2021 to advance in a post-Keynesian, developmental orientation of the national economy: having a majority in Congress and the Senate, and the exceptionality of the Covid-19 pandemic with its health and economic impact that required a more energetic economic and health intervention, equivalent to a stage of “war economy”, with a radical change in the design of the expansive economic policy, growing budgets, a strategy comprehensive health and a national agreement for economic recovery. All of this by strengthening the domestic market, regional and sectoral development with public investment as the axis and fiscal, monetary and exchange rate policy as support for a national employment policy.

For his part, President López Obrador reiterates that there will be no change in the administration of the national economic policy, which leaves the promises of the Fourth Transformation of development, that is, employment and well-being, in good wishes relegated by the persistence in neoliberal austerity. Progress in controlling the Covid-19 pandemic, economic reactivation and growth will continue to depend, as has happened since 1994, on the signing of the Free Trade Agreement with the United States and Canada, and the operation of the economy of the former country as it defines the amount and rhythm of 80% of Mexican exports. Thus, in 2021, it is clear that the Mexican economy, the Fourth Transformation, will continue to be prey to the neoliberal cage and the impact of Covid-19, increasing the vulnerability and subordination of the United States, who pressures the Mexican government on energy, security, and migration issues, even conditioning the supply of vaccines to said subordination; as happened in March with the closure of the southern border by the National Guard due to the “reappearance” of irregular immigration with 100,000 migrants detained during February at the United States’ border with Mexico.

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6

WORKING HARDER OR HAPPIER? HOME OFFICE ADOPTION AFTER COVID-19

Humberto Merritt¹

Abstract

The emergence of the COVID-19 pandemic during the early months of 2020 created several unexpected socioeconomic worldwide effects, with governments across the globe forced to take urgent action. The most common restrictions were strong social distancing together with stay-at-home policies. As a result, a large number of economic activities, especially those requiring physical interactions, suffered deep transformations, prompting the appearance of the so-called work from home (or telework), with many enterprises, corporations, and organizations embracing telework as a means for keeping their employees on duty. However, a critical question for labor markets has arisen from the pandemic: can workers plausibly work from home? In answering this question, one can devise two perspectives. One relates to the long-term effects of telework, which can be reflexed by inquiring if working from home has been more effective (i.e., productive) than working at the office. The other has to do with the unexpected (psychological) effects of telework, such as mental fatigue, anxiety and lack of privacy. This paper analyzes telework's social and productive consequences by reviewing the main themes arising from the rapid adoption of working from home as reported and commented on by the world media.

Keywords: Economic Crisis; Telework; Labor Market; COVID-19; Productivity; Job Satisfaction;

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Introduction

In January 2020, China confirmed reports that a novel coronavirus (COVID-19), triggered in December 2019 in Wuhan, posed a severe threat to human health. The government announced drastic measures to contain the spread of the virus, including travel restrictions and bans on good shipments, and a few weeks later, the World Health Organisation (WHO) declared a global health emergency. While these measures helped slow the rate of new infections and deaths, there have been catastrophic economic and business impacts on the rest of the world (OECD, 2021).

Coronavirus disease is currently the most significant world threat. Apart from affecting the population's health, it is also destroying jobs and firms around the world. For example, after sporadic reports of COVID-19 infections, in late February 2020 many large Japanese companies ordered their employees to work from home. Consequently, business closures and travel bans reduced productivity akin to temporary employment drops (The Economist, 2021).

Several studies have pointed out that the pandemic is changing the way of producing and consuming goods and services, increasing the likelihood that some of the effects of the crisis will become permanent and that different occupations would radically change or even disappear (Baldwin & Weder, 2020; Cohen, 2020; Farrell, 2020). Also, many governments have taken harsh measures to limit the spread of the virus, such as quarantines or mandatory confinement measures, all of which have caused drastic reductions in economic activity, leaving millions of people unable to work (Osterholm & Olshaker, 2020). In addition, many adverse socioeconomic consequences appeared soon afterward: rising unemployment rates, reduced labor participation and employment, and drops in both hours worked and income. In Latin America, for example, Inter-American Development Bank (IADB) estimates suggest that up to 17 million formal jobs were lost, and labor informality reached 62 percent, which would be equivalent to erasing all progress made in these dimensions between 2000 and 2013 (IADB, 2020).

As for the workers, COVID-19 has taken a terrible toll on the world's labor markets. It has destroyed millions of jobs, causing rising unemployment that has been several times bigger than the one after the 2008 financial crisis (OECD, 2021). In many countries, layoffs have increased to levels last seen in the 1930s, with the worst effects for the low-skilled workers. In particular, job inequalities have

worsened because ‘essential workers’ have no option but to continue traveling to and from their workplaces; whereas, many office-based colleagues have been able to shield themselves at home (The Economist, 2021).

This study follows Messenger (2019) and Ollo, Goñi and Erro (2021). They point out that remote work, home office, hybrid work, work-from-home, and telework are designations frequently used to describe environments where people are not physically present in their assigned workplace. We set to examine the effects of home office adoption on workers’ welfare by reviewing the pros and cons of teleworking as reported by some recent reports and surveys. In particular, we harness the large number of comments posted on the BBC web page regarding the impact of remote work on people’s wellbeing between 1-2 March 2021. The document is structured in seven sections, including the introduction and conclusion. The following section deals with the current situation of the pandemic.

The COVID-19 Health Crisis and Its Impact on the World Economy

Examining why the world is currently involved in the health crisis is not simply a matter of accountability. COVID-19 should serve as a warning of how much worse a pandemic could be and trigger the necessary action to contain an outbreak before will be too late (James & Valluvan, 2020; Osterholm & Olshaker, 2020). To gauge the human dimension of this health crisis, Table 1 shows the state of the principal countries affected by the pandemic as of August 2021.

Table 1. COVID-19 cases by principal countries as of August 2021

Country	Total Cases (Millions)	Deaths (Thousands)	Death Rate (per 100,000 people)
United States	35.6	614.0	187.7
Brazil	20.2	563.2	268.8
India	32.0	428.3	31.7
Mexico	3.0	244.4	193.7
Peru	2.1	197.0	615.7
Russia	6.4	162.1	111.2
United Kingdom	6.1	130.3	194.1
Italy	4.4	128.2	211.5
Colombia	4.8	122.5	246.6
France	6.3	112.2	172.6
Argentina	5.0	107.5	242.2
World	202.8	4,294.6	55.4

Notes: Data refers to the eleven most affected countries. The death rate is reported for 100,000 inhabitants.

Source: CSSE-Johns Hopkins University (2021), national public health agencies, and U.N. population data [Retrieved from <https://bit.ly/2VwI8np> and consulted on 5 August 2021]

Table 1 depicts a sample of the nations most affected by the pandemic. Notably, almost half of the countries listed belong to the Latin American region, and (unfortunately) they also hold the highest death rate per 100,000 people. This situation exhibits the kind of problems faced by developing nations when coping with public health issues. Hence, the disease has created a challenging operating climate for the world economy. For instance, before COVID-19, international organizations and specialists had known that another significant pandemic would come. Although it is expected that the current public health crisis will eventually end, either when all inhabitants get vaccinated or when enough of the global population has developed immunity, neither of those outcomes will come quickly. Still, the human and economic costs in the meantime have been enormous. However, it is too early to assess if any of these statistics reflect harder economic realities. At best, we will only know when the full extent of the recession and recovery costs have been correctly measured (Cohen, 2020).

On the other hand, the pandemic has had a more visible impact at the macroeconomic level, which has forced most governments to apply policies to help people out of the economic crisis. In this regard, last year saw a previously unthinkable experiment in social spending. In 2020, the world launched at least 1,600 new social protection programs, with rich countries providing almost six percent of Gross Domestic Product (GDP) to help workers (OECD, 2021). So far, government debts are piling up, but if low-interest rates can hold in the long-term, they would be cheap to service.

It is worth noting that, after the 1930 depression and World War II, voters and governments in developed nations recast the relationship between the state and its citizens. Now, the health crisis has forced advanced countries to review their current long-lasting fiscal rules on social spending (The Economist, 2020). In the case of the United States, more than three-quarters of Americans support President Joe Biden's \$1.9 trillion stimulus bill, which includes \$1,400 cheques for most adults, whereas, in the United Kingdom, the current government has put money in family's pockets in order to recover household spending under a furlough scheme (The Economist, 2021). For Britain, these actions have sent public debt at its highest level since 1945. Yet, some scholars have warned that such boldness can bring dangers because governments could stretch the public finances to breaking point, distorting incentives and creating sclerotic societies. All in all, the COVID-19 crisis offers a chance to devise new social welfare policies that can help workers thrive in a time of rapid (and unpredictable) technological changes (OECD, 2021).

As a consequence, public opinion regarding government intervention has shifted. For instance, a recent survey shows that most Europeans would support a universal basic income. In Britain, the changing mood regarding social assistance can be confirmed by looking at affluent professionals paying closer attention to the adverse working conditions of those who deliver food and look after the sick (The Economist, 2021). The relatively rapid rollout of vaccines to combat the pandemic also confirms the adoption of renewed welfare policies, although mass immunization will take time (OECD, 2021).

Concerning the world labor markets, the manufacturing sector has got a triple hit. Manufactured goods are susceptible to demand shocks, like those seen during the 2008 crisis. However, the pandemic also hit the service sector, as restaurants,

hotels, tourist resorts, and entertainment sites were forced to stay empty. Consequently, many employees were unable to keep on working, at least in public spaces. Only those with the conditions (and skills) to shift their duties to the virtual sphere could maintain their routines (Ollo *et al.*, 2021).

COVID-19 and World Employment

With the pandemic, the percentage of workers performing remote work suddenly rose as companies took steps to facilitate the practice in an effort to keep their operations ongoing. In Argentina, for example, a survey of 250 large firms carried out in March 2020 found that 93 percent had adopted teleworking as a policy in response to the pandemic. Similarly, Tata Consultancy Services (a large Indian firm) reported that 85 percent of its 400,000 employees in India and elsewhere in the world were working from home due to lockdowns (ILO, 2020).

It is worth noting that teleworking is a flexible way of performing jobs that entails a wide range of work activities, all of which involve working remotely from either the employer's premises or from a traditional place of work. Teleworking may be part-time or full-time and considers people working at home, people working from home, and people working at local centers such as telecottages or neighborhood offices. This designation fits labor activities that require a vast amount of screen work. According to Messenger (2019), advances in digitization and the introduction of knowledge-intensive jobs have made remote work more likely for employers and employees.

In this respect, growing empirical evidence suggests that COVID-19 encouraged the rapid adoption of teleworking since February 2020. Still, the tendency towards pushing workers to work from home had already existed well before the pandemic. For example, in 2008, Americans spent 5 percent of their working time at home. By spring 2020, the figure was 60 percent (The Economist, 2021). To set the comparison, Table 2 depicts the proportion of teleworkers in the United States that existed in 2010 as reported by Mateyka, Rapino and Landivar (2012) from the U.S. Census Bureau.

Table 2. Workers' Occupation by Work-at-Home Status in the United States in 2010

Category	Total Employed	Home Workers	(as %)
Management, business, and financial occupations	20,097.2	2,594.5	12.9
Professional and related occupations	31,705.9	2,635.4	8.3
Service occupations	25,759.7	1,115.7	4.3
Sales and related occupations	15,195.4	1,246.9	8.2
Office and administrative support occupations	18,617.2	817.6	4.4
Farming, fishing, and forestry occupations	1,261.7	198.7	15.7
Construction and extraction occupations	7,344.1	249.2	3.4
Installation, maintenance, and repair occupations	5,019.3	165.8	3.3
Production, transportation, and material moving occupations	16,616.7	345.2	2.1
Total	141,645.6	9,373.9	6.6

Notes: *Civilian employed age 15 years and older; numbers in thousands. Homeworkers are defined as those who worked exclusively at home (i.e., every day they worked, they performed at home).*

Source: *Author's elaboration based on Mateyka et al. (2012)*

As seen in Table 2, in 2010, just a handful of workers could carry out their duties remotely, with the higher proportion of teleworkers in farming, fishing, and forestry occupations, followed by management, business, and financial professions. To some extent, these employees were the precursors of the current shifting wave, although they would probably be volunteers rather than forced adopters. Nowadays, the shift towards telework has gone better than expected. However, people are now working longer hours, but they report higher levels of happiness and productivity (OECD, 2021). Then, we can assume that as lockdowns lift, teleworking is likely to stay.

Telework: Origins, Evolution, and Current Situation

Although remote work is becoming a popular working category, it is far from being novel. According to the International Labour Organization, working from home was the norm during ancient times. Until the last century, most production was home-based, with families producing goods for self-consumption or as a source of income. When mass production began, working from home evolved towards

a subprocess within a more elaborate division of labor, with tasks most amenable to parsing often outsourced to homeworkers. It is worth noting that these workers differed from independent artisans in that they supplied a product or service, as specified by the employer or intermediary, for remuneration (ILO, 2020).

As the economic structure evolved, homeworking branched into the service sector. In the United States during the 1940s and 1950s, the expanding direct marketing mail industry relied on homeworkers for most of its clerical typing tasks. And a few years later, in the 1980s, the insurance industry used homeworkers to help process insurance claims (Messenger, 2019). More recently, industrial homework has adapted to newer industrial requirements and can be found, for example, in Italy's high-end fashion industry. Yet, most industrial home-based work is in the developing world (IADB, 2020). In India, there are about 37 million home-based workers (8.5% of employment), including both independent artisans and homeworkers. Homeworkers, most women, are found predominantly in the country's garment export sector (ILO, 2020).

But the concept of working from home changed as a result of the pandemic. Like homeworking, teleworking is a narrower concept than is applied to employees who carry out their work remotely from home (Berry, 1996; ILO, 2020). First described as telecommuting, telework emerged in the 1970s in California, when employees in the technology sector began using information and communication technology tools to work remotely from home (Nilles, 1975). Telework also involves a key spatial aspect because geographical dispersion and employees' dependence on technology are crucial when communicating with each other (Raisiene *et al.*, 2020). Like previous industrial and clerical homework, teleworking has also been advocated as a means for allowing women (and some men) to earn an income while doing unpaid home tasks such as family care, for example (Jackson, 1999).

Although teleworking has received much attention, before COVID-19, most remote works were occasional, with just a tiny percentage of employees doing so permanently. As depicted in Table 2 for the United States, the practice was mainly limited to managerial and professional staff. More recently, a 2017 survey from the consultancy FlexJobs found that the average employee would like to work from home nearly half the time (FlexJobs, 2017).

While employees are keen to work from home, employers are more reluctant to transfer duties towards virtual offices. Yet, available data suggest that, sooner or later, a fifth of working time will be spent at home (one day a week), which represents a spectacular shift from the previous norm (The Economist, 2021). It is expected, however, that remote-only firms will remain a small minority due to entrenched work practices and traditional visions regarding office work.

Nonetheless, telework is not exempted from criticisms. For example, Raisiene *et al.* list the advantages and disadvantages of working from home. As regards the former, workers can balance personal life. Firms have the chance to attract and hire qualified employees living anywhere globally, extending the organization's working hours regardless of time zones. And workers and firms can negotiate time and location for work, and thus enhancing productivity. However, teleworking is also blamed for the loss of socialization, no clear-cut separation between work and personal life, and lack of effective communication and cooperation with co-workers and managers (Raisiene *et al.*, 2020). The following section provides a more detailed revision of these issues.

Telework: Benefits and Disadvantages

As hinted before, COVID-19 has revived the debate around the pertinence of performing remote work. To some extent, it has helped to re-evaluate employees' engagement in jobs because blurring the line between work and home makes it harder for firms to treat office staff as automatons (The Economist, 2021). In this regard, some anecdotes surrounding teleconferences have served to remember that people are still people. Take, for example, the sight of children invading Zoom meetings, or people showing their laundry in the background, all of which has softened even conservative managers, prompting them to pay more attention to their staff. In addition, because many employees have discovered they could do their job remotely, now they can assess whether to choose remote-only or hybrid workplaces. In any case, a full year of teleworking has given organizations a better perspective on the future of work (OECD, 2021).

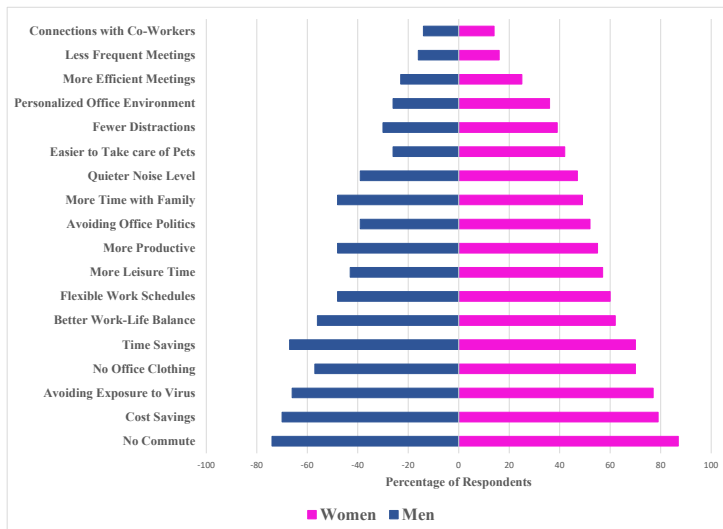
On the other hand, the analysis of the benefits and challenges of telework has been addressed in several surveys. Concerning the benefits, some studies point out that employees praise more flexible schedules and saving commute time and money as the most critical gains (Wrycza & Maślankowski, 2020). These advantages translate

into the option to work from anywhere, thus easing the chance of spending more time with family (Farrell, 2020; Kelliher & Andeson, 2008). Nonetheless, various drawbacks are still ingrained in the concept of remote work. Many remotely working employees report not being able to balance their professional and private lives, experiencing difficulties collaborating and communicating because of home office (FlexJobs, 2017). These objections emphasize the role modern technologies play in enabling different remote work options. Not only are information technology decision-makers looking to improve technological infrastructure and work-from-home-capabilities, but employees are generally acknowledging the various applications and devices that can positively impact their work environment (Ollo *et al.*, 2021; The Economist, 2021; Wrycza & Maślankowski, 2020).

Gender also plays a role in determining the perceived benefits of telework. The importance of gender in teleworking adoption was researched by the consulting firm FlexJobs in a survey of more than 2,100 people between March and April of 2021 (Pelta, 2021). FlexJobs found that the respondents either worked or were still working remotely due to the pandemic. The sample included 550 men and 1,600 women, and while male and female respondents shared several similarities in their remote work experience, they also showed different perspectives regarding this kind of work. Survey results show that 69 percent of men and 65 percent of women said that having increased telework policies will improve gender equality in the workplace. However, 26% of men and 17% of women felt their professional skills suffered during the pandemic.

Rachel Pelta stresses that only 13% of women think that working remotely during the pandemic has hurt their chances of promotion or advancement. When respondents were asked if they could not continue remote work in their current position, 60% of women would look for a new job, while 52% of men stated they would quit. And, in that search for a new job, 69% of men and as many as 80% of women said remote-work options are among the most important factors to consider when evaluating a new job (Pelta, 2021). It seems likely that women prefer remote work at higher rates than men. Figure 1 presents a more detailed summary of the survey findings.

Figure 1. Benefits' assessment of remote work by gender



Source: Author's elaboration based on data extracted from the 2021 FlexJobs Survey, as reported by Peltia (2021), which are freely available at: <https://www.flexjobs.com/blog/post/men-women-experience-remote-work-survey/>

As Figure 1 shows, the unfolding of telework due to COVID-19 has had a significant impact on women. Although many jobs cannot be performed remotely and require that workers be physically present at their worksites, people who could shift to remote work did, helping organizations and workers to sort the crisis. For many women, a full year of teleworking has given them a new perspective on the future of jobs. All in all, remote work is quickly becoming the preferred way to work for them. In the case of young job seekers, it seems likely that they will give preference to employers willing to embrace telework.

Public Opinions Regarding Telework: An Empirical Analysis

Since the COVID-19 outbreak, many more socioeconomic effects are becoming evident. In the case of telework, a growing body of evidence suggests that not all adopters look happy. A recurring complaint has to do with difficulties in separating leisure time from work responsibilities. In the beginning, early adopters

were excited by the broader possibilities of distributing spare time between tasks, but once remote work became the norm, they realized that free time was frequently sacrificed to meet timetables. And then, much of the expected flexible work transformed into actual extended work hours. Other remote workers also felt annoyed by the uncertain return to on-site work. And discussions are also emerging over the possibility to cut salaries and work fringes given non-existent physical office needs.²

In order to gauge the current mood regarding telework adoption, we looked at the case of Britain, where there has been a large number of media reports on the lockdown effects on British society. Therefore, we carried out a semantic analysis of the comments posted on the BBC's webpage between 1-2 March 2021 in an article titled: "Covid: 'People are tired of working from home'"³. Interestingly, this article triggered an exciting discussion regarding the pros and cons of teleworking in Britain.

The methodology consisted of creating a weighted list of words in visual design (i.e., word cloud) to represent text data visually. This approach is typically used to depict keyword metadata (tags) on websites to visualize free-form text. Tags are usually single words, and the relevance of each tag is shown with font size or color (Knautz *et al.*, 2010).

We collected the most relevant comments posted on the BBC webpage via the Internet. The quality and frequency of comments were used to select opinions. The BBC webpage reports that 2,758 comments were posted between 1-2 March. Using the free software Wordle (<http://www.edwordle.net>), we could prepare a word cloud of the most recurrent terms posted on the BBC webpage. Figure 2 shows the first step in analyzing the most frequent words that appeared in the statements posted.

2 See, for example, the BBC's post "Google may cut pay of staff who work from home," available at the URL: <https://www.bbc.com/news/business-58171716> [accessed on 11/August/2021].

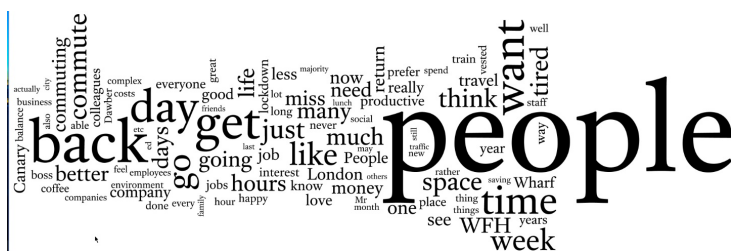
3 The article and comments are available at <https://www.bbc.com/news/business-56237586> [accessed on 2/August/2021].

[illegible]

Source: BBC's webpage: <https://www.bbc.com/news/business-56237586> [accessed on 3 August 2021].

On the other hand, vested interests can also affect the debate's direction. For example, office developers, real estate agents, and local authorities can be eager to see workers returning to physical workplaces because empty spaces represent huge losses due to sunk costs. In this case, the cited BBC's article reports that London's Canary Wharf financial complex had only about 6,000 people on-site in March 2021, compared with 100,000 in pre-COVID-19 times. Therefore, Canary Wharf Group, the developer behind roughly 7.5 million square feet of office space, would stand to benefit if there is a surge in demand once lockdown restrictions ease.

Figure 3. Selected word count analysis of comments posted on the BBC's webpage



Source: BBC's webpage: <https://www.bbc.com/news/business-56237586> [accessed on 3 August 2021].

Donald Thump. At 12:10 on 1 March 2021.

“Thumbs up if you’ve enjoyed the opportunity to work from home and have a better quality of life. Thumbs down if you would prefer to spend 5K plus a year on a cramped commute into London 5 days a week.”

Ranked # 2: 2,486 likes and 59 dislikes

bbc waste. At 12:07 on 1 March 2021.

“It’s not fatigue from working at home. It’s fatigue from lockdown. Two very different things....”

Ranked # 3: 1,906 likes and 50 dislikes

Saturnine. At 12:08 1 March 2021.

“Owner of offices says people don’t want to work from home.’ Shocker. I’ve worked from home since last March. Within my company, productivity is unchanged if not better. There are undoubtedly people who would rather work from the office but not me! Fatigued? Nope. I was fatigued when doing a two-hour commute every day and paying £150 a month in travel costs. Beware of blanket statements!”

Ranked # 4: 1,693 likes and 22 dislikes

Kenny. At 12:08 1 March 2021.

“Man with vested interest in getting people back into offices says that people want to get back into offices.”

Ranked # 5: 1,223 likes and 30 dislikes

Enter name here. At 12:06 on 1 March 2021.

“the occasional day working at home’ LOL, in his dreams. After an initial rush back, once people realise how much more expensive it is to commute in each day, and how much time it eats out of their day, they will revert to at least 2 or 3 days a week working at home, and why shouldn’t they? Good for them, good for the environment.”

Ranked # 6: 1,191 likes and 42 dislikes

Will all be fine. At 12:14 on 1 March 2021.

“People are tired of working from home’ says the boss of the UK’s biggest office complex. Well he would wouldn’t he. I’m not tired, I love it, saving hours of pointless commuting, saving money on travel and overpriced coffee and sandwiches. I never want to go back to the office ever again.”

We think these comments reflect, to some extent, the general perception regarding telework (at least in Britain). It is also worthy of note that many believe that working from home has offered the advantage of avoiding transport costs, which seem to be significant for many Londoners. However, people also seem to miss

evening drinks with co-workers, which is a clear example of how the lockdown sacrificed social contact.

In this regard, the comment posted by Right Way Forward, who replied to Donald Thump at 12:13. 1 March 2021 is worth noting: *“It’s the social aspect of working which is being missed, I do more deals in a social environment than sitting at home.”* In this case, the solution seems to be affordable: 100% - *working from home would be great if you could leave the house in the evening.*

Conclusions

COVID-19 has had several socioeconomic side effects. One of the most visible and far-reaching was on employment. The impossibility of moving around due to strict social isolation measures forced most companies to implement telework. In the case of those workers who could adopt this modality, the effects are just beginning to be analyzed. This paper has reviewed the emergence of home-based work and how employees have reacted to this phenomenon.

In principle, not all productive activities can be performed remotely. So, telework remains relatively contained for some specific jobs and workers. As Garrote and colleagues have pointed out, only one of every five jobs can be performed from home (Garrote Sanchez *et al.*, 2021). We also need to consider that working from home requires the appropriate technology infrastructure, such as a computer and a suitable internet connection. Since better-paid workers are more likely to work from home, COVID-19 has likely augmented inequality. Therefore, young, poorly educated workers and those on informality are least likely to work from home and more vulnerable to the pandemic effects.

This paper focused on a sample of British workers reporting the advantages and drawbacks of teleworking. Empirical evidence suggests that perceptions of the pros and cons of remote work have to do with the individual’s social position, gender, and type of activity, as Raisiene and colleagues have reported for Lithuania⁴.

We reported that teleworking made the continuity of productive activities possible to the extent that moving paid work from the office to the home was feasible. For

⁴ According to these authors, the most satisfied teleworker is a Millennial woman holding a higher education degree, with 4-10 years of professional experience, and working from home two days a week in the management and administration field (Raisiene *et al.*, 2020, p. 21).

employees, this change has meant fewer commuting expenses and more flexible shifts. In contrast, employers seem to hesitate to embrace telework more openly, given the sunk costs that brick-and-mortar offices still represent. The evidence is ambiguous, though. While some employees think that remote work creates the chance of saving time and money without undermining their work performance with the plus of enjoying more time with their families, others believe that once telework becomes the norm, their chances to be promoted will suffer in the future.

All in all, the debate is far from being settled. In a sense, the COVID-19 pandemic has created the opportunity to devise the future of work, although teleworks effects still need to be fully understood. Public policies will have to address what can be considered telework and how it should be regulated and accepted by the parties involved. In any case, sooner or later, the ongoing technological revolution will set the conditions for the labor market of the future.

Acknowledgments

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7

COVID 19 IMPACTS ON EMPLOYMENT LEVELS IN EUROPE AND BULGARIA

Julia Dobрева

Abstract

The COVID-19 pandemic which started in the beginning of 2020 has affected the global economy more than the financial crisis in 2008-2010 and has caused serious problems for development and growth in both developed and developing regions. This paper explores the impacts of the COVID-19 crisis in Europe in terms of employment implications and the relevant policy measures which were introduced by EU governments to tackle the problem with unemployment levels. The paper treats the primary economic measures taken by governments during the onset of the epidemic and discusses their major impact on the economic systems in Europe. Thus the paper also comments on the policy dynamics during the COVID-19 process. In addition, the paper analyses the COVID-19 impacts on employment in Bulgaria and the relevant government measures.

Key words: COVID-19 pandemic, economic growth, development, unemployment

1. Introduction

It is important to consider the reasons behind difficulties in economic development during crisis periods, driven by non-economic factors but having profound economic impact. The pandemic from the spread of the novel coronavirus (referred to as COVID-19), which started in the beginning of the year 2020 has definitely affected the global economy more than the financial crisis in 2008-2010 and for just one year it has reached levels of economic downturn more than double than those achieved during that crisis period 13 years ago. As a result, the anti-covid measures implemented by governments, which led to general

restrictions on economies worldwide, have caused serious problems for development and growth in both developed and developing countries.

The aim of this paper is to comment on the impacts of the COVID-19 crisis in Europe in terms of its employment implications as well as the policy measures which were introduced by EU governments to tackle the problem with unemployment levels. The paper treats the primary economic measures, in view of employment, taken by governments during the onset of the epidemic and discusses their major impact on the economic systems in Europe. In addition and to explain the effectiveness of the measures, it comments on the policy dynamics during the COVID-19 process. In its last section, the paper analyses the COVID-19 impacts on employment in Bulgaria and the relevant government measures.

2. Employment implications of COVID-19 in Europe

According to the Eurofund Report⁵ in Q2 2020, 5.7 million fewer people were in employment in Europe than in Q4 2019, and the EU27 unemployment rate increased from 6.6% to 6.7% over the same period. However, a clearer picture of the impact of COVID-19 on the labour market emerges when observing trends in weekly hours worked and when the share of those employed but who did not work are considered. In addition, it is reported that between Q2 2019 and Q2 2020, EU employment declined by 2.4%, average weekly hours worked of those who attended work reduced by nearly one hour, while the share of workers employed but not working more than doubled to 17%. There are significant differences between Member States and also young people were most impacted by reductions in employment levels. They were also highly represented among furloughed groups. Prime-age workers in the age group 25–54 years and older male workers were most likely to be working reduced hours.

It is interesting to note that while the 2008–2010 financial and economic crisis hit the male-dominated manufacturing and construction sectors in particular, the COVID-19 pandemic mainly affected the more female-dominated accommodation, food and beverage, travel and tourism and arts and entertainment sectors. This was somewhat balanced by a rising demand for workers in other female-dominated sectors. Another important observation is that while the 2008–2010 crisis

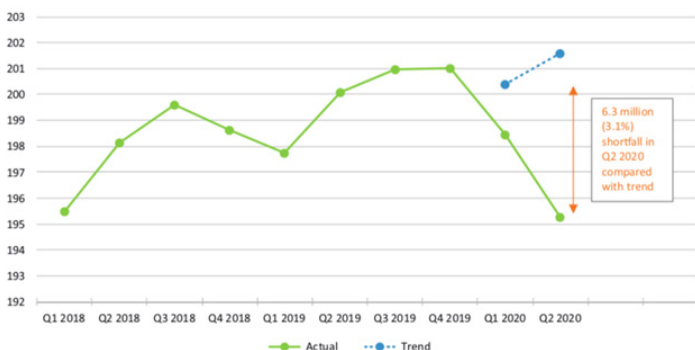
5 Eurofound (2021), *COVID-19: Implications for employment and working life*, COVID-19 series, Publications Office of the European Union, Luxembourg.

saw the greatest losses in the middle of the wage distribution whereas, up to Q2 2020, the COVID-19 crisis had impacted mainly on the lowest paid workers.

These observations point to a rather differential impact of the pandemic which in addition is also seen in the large shift to telework. It is reported that by July 2020, nearly 50% of the EU workforce had moved to exclusive or partial telework. As this option is not available to all, this opens up new labour market gulfs, as the more highly educated and those in urban areas are more likely to have their jobs protected through the ability to telework. *They are also the ones who turn to be more adaptable to the impossibility to work in office than whereas the workforce in low skilled labour had no other option but to remain out of business activity and hence be more vulnerable and prone to unemployment.*

When explaining the discrepancy between the change in unemployment rate and the change in employment level as a result of the crisis, it is obvious that the main reason for that is that most of the decline in employment occurred as a result of transitions to inactivity rather than unemployment. People who lose their jobs and are no longer seeking work are classified as inactive and outside the labour force and the fact is that these forms of temporary joblessness are not measured in the unemployment rate.

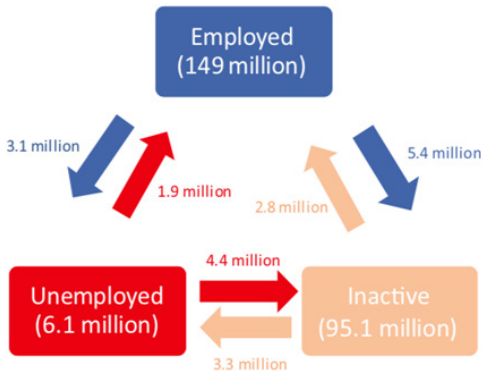
Figure 1: Employment levels, Q1 2018–Q2 2020, EU27 (millions of workers)



Source: Eurofund Report 2021

When observing the dynamics of the data illustrated in Figure 2 it shows that labour market transitions were strongly employment negative between Q1 2020 and Q2 2020. The net flow out of employment into unemployment (+1.2 million) was less than half of the net flow from employment to inactivity (+2.6 million). Also, the gross flows for each of these transitions were the highest recorded for any quarter in the last 10 years. It is then evident that the outcome was that employment shrank by 3.8 million in the quarter marking the first wave of the pandemic. Nearly all of this decrease was reflected in a large increase in inactivity (+3.7 million), with a much more modest increase in unemployment (+0.1 million). In addition, there was a net flow of 1.1 million people from unemployment to inactivity, which further mitigated increases in unemployment in the quarter. Hence, inactivity on the labor market due to suppressed economic conditions should be considered as a form of exceptional unemployment which is born not by economic difficulties or by inconsistency of the qualification of human resource with the economic structure. Rather, this is a form of unemployment resulting from short or long-term closures of specific sectors to reduce the possibility of virus transmission.

Figure 2: Employment levels, Q1 2018–Q2 2020, EU27 (millions of workers)



Source: Eurofund Report 2021

In addition, it is reported that demand for services in the knowledge-intensive services sectors appears to have been boosted as ongoing processes of digitalisation accelerated as a result of the crisis. One sub-sector in manufacturing – pharmaceuticals – has also been largely unaffected by the crisis and it is also a ‘knowledge-intensive’ sub-sector, one of the few in manufacturing enjoying structural

employment growth. It has most likely benefited from increased research activity and product demand arising from the public health emergency. The other unaffected sector is construction but as the economies have been trying to revive in Q1 and Q2 of 2021, it turned into a source of unforeseen price increases for the basic construction materials.

The studies performed indicate that each Member State has regulated the pandemic-related lockdown mainly by identifying essential and non-essential activities by sector, broadly related to the satisfaction of basic needs, primarily health, food and security (Fana *et al.*, 2020). Another interesting tendency observed is that the levels of agricultural employment, which are otherwise in general decline, have been supported and as a result labour inputs in this sector have declined only marginally.

The pandemic in 2020 has been more seriously affected by unemployment than the crisis period 2008-2010, considering that the unemployment levels have outgrown them for just one year. Based on EU-LFS quarterly data provided by Eurostat⁶, employment levels in the EU27 declined by 4.9 million in the 12-month period from Q2 2019 to Q2 2020, a larger fall than the 4.3 million decline recorded in the two years between Q2 2008 and Q2 2010. Also, employment losses during the current crisis were therefore larger and occurred more quickly than those experienced during the global crisis, despite the huge fiscal supports mobilised to protect employment.

3. Policy measures as a response to COVID-19 impacts on EU level

While the COVID-19 crisis was unfolding, the EU Member States have taken action to minimise its impact on businesses, workers and citizens. In particular, the broad range of financial and other support measures were adopted on EU level to assist Member States in their efforts to mitigate the worst effects.

In early April 2020, a €540 billion emergency rescue package was proposed which included a pan-European Guarantee Fund established by the European Investment Bank, providing €200 billion in financing for companies (particularly small and medium-sized enterprises (SMEs)), and a new fund, the SURE instrument, providing up to €100 billion to support Member States in the implementation

⁶ <https://ec.europa.eu/eurostat>

of short-time working schemes and similar measures in an effort to safeguard jobs. As a mechanism and by definition, the SURE instrument provides loans on favourable terms to EU countries facing a ‘sudden and severe’ rise in public expenditure to protect employment. Another approach was the flexibility in the use of the EU Structural Funds which was increased to allow Member States to transfer money between different funds and regions in order to reduce the impact of the pandemic on economic life in the region. Specific sectoral measures have also been developed to support the most hard-hit sectors, particularly the tourism sector. A plan to borrow €750 billion to support recovery efforts in the EU was agreed by EU leaders in July 2020 and a central role in this effort is the €672.5 billion Recovery and Resilience Facility (RRF). The goal of the RRF is to assist Member States in dealing with the economic and social impacts of the pandemic while ensuring that economies undertake green and digital transitions to make them more sustainable and resilient.

Also, income protection measures beyond short-time working made up the next largest share of measures. They emphasised the importance of extending support to groups not previously covered (such as self-employed people) and enhanced sick pay schemes for workers affected by COVID-19 or self-isolating. During the first wave of the pandemic in 2020, when schools and crèches were closed in many EU countries in the months April-June, the support of parents who were unable to work was considered to be crucial. These measures became less relevant in the context of the second wave in the autumn, as childcare facilities and educational institutions remained open in most countries. Most Member States extended access to – and in some cases increased the level of – unemployment benefit payments in order to assist both individuals claiming unemployment benefits when the crisis struck and those losing their jobs as a result of the pandemic. In the face of diminishing job vacancy rates, many Member States reduced the requirements for job searching.

In addition, the information gathered in Eurofound’s COVID-19 EU PolicyWatch database demonstrates that the expansion of what it categorises as ‘employment protection’ 11 schemes has been one of the key features of the pandemic, building on lessons learned during the 2008–2010 financial and economic crisis (Eurofound, 2020). It is important to note that, as reported, the use of such schemes to preserve jobs in companies experiencing a temporary drop in demand received

strong backing from the European Commission and the Council of the European Union with the introduction of the SURE instrument.

In addition, twelve countries introduced new schemes during the first phase of the pandemic (Cyprus, Denmark, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Malta, Poland, Romania and Slovenia). The other countries amended existing measures and these amendments primarily revolved around simplifying administrative access and broadening eligibility criteria. As observed, Austria, Finland, France, Germany, Italy, Portugal and Spain increased access to groups of workers not previously covered (for example, apprentices and workers on non-standard contracts, such as part-time and fixed-term contracts, and agency workers or workers in domestic settings). Also, eight countries enhanced the generosity of benefits by temporarily increasing income replacement rates. These were Austria, Belgium, Czechia, France, Germany, Slovakia, Spain and Sweden.

It has been reported that the 'traditional' distinction between temporary unemployment and short-time working was often maintained in countries newly introducing such schemes and this means that both types of measures now exist in Cyprus, Romania and Slovenia. Also, a temporary unemployment scheme was created in Denmark to meet the restrictions imposed in many sectors by the lockdown. This complemented a pre-existing job-sharing scheme that is similar to short-time working arrangements. By September 2020, Latvia had introduced only a temporary unemployment scheme requiring the full cessation of working hours.

Apart from that, many new schemes and amendments to existing measures were introduced very quickly in the early phase of the pandemic response (in early to mid-March 2020). The effort was to avoid large-scale job losses because parts of the economy were forced to close down or had their operations significantly limited as a result of government public health measures. Thus, existing systems of collaboration and consultation were disrupted or functioned less effectively in some countries. Because of the evolution of public health measures and their economic impact over time, many schemes were subject to a range of further changes in the following groups:

- explaining and addressing initial shortcomings and anomalies, usually soon after their initial implementation

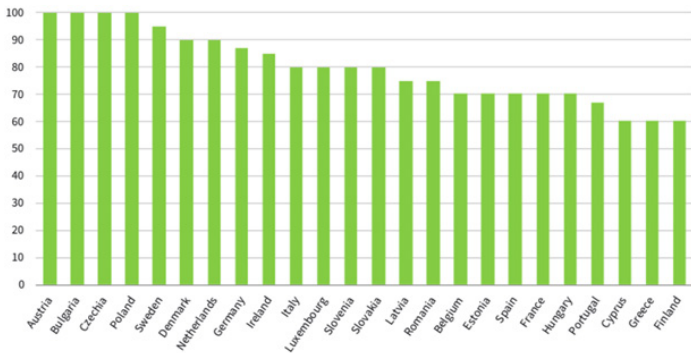
- consideration on the longer-term nature of the economic impact of the pandemic and the requirement to adjust measures in response to the gradual opening up of the economy

It has been argued that the latter types of amendment can also be seen as efforts to ensure sustainability and prevent the emergence of adverse effects linked to the longer-term use of short-time working schemes, which includes also the deadweight effects or the sustaining of 'zombie companies' that would not have survived in the long term (Cahuc, 2019; Hijzen & Martin, 2013). A key feature of the clarifying adjustments was the inclusion of additional groups of workers. Ireland for example revised its temporary wage subsidy scheme to address unintended anomalies that had emerged, such as the exclusion of women who were on maternity leave and apprentices who were on block release for training on the cut-off date for access to the measure. The pressure from specific interest groups was also addressed as for example Romania adjusted its scheme to include freelance workers.

In order to reduce deadweight effects, several countries (for example, France and Spain) increased the requirements for employers to cover a higher share of the costs if they wished to continue to receive support. In Estonia further eligibility criteria for access were introduced that had initially provided broad support in order to reduce deadweight effects. Overall, all new and amended schemes were conceived to be time limited, with a number expiring by November 2020. Some schemes were subsequently reactivated with the emergence of the second wave of the pandemic in October 2020.

Figure 3 shows that schemes in Austria, Bulgaria, Czechia, Poland, Sweden, Denmark and the Netherlands offered replacement rates of between 100% and 90% of previous salaries, with Cyprus, Greece and Finland offering the lowest rates of up to 60%.

Figure 3 Replacement rates as % of pre-Covid salaries



Source: Eurofund Report 2021

In addition, caps applied to the maximum levels of wage support available can have a significant impact on the actual replacement income received by workers. Most national schemes applied such caps and in some countries, the cap was expressed in relation to the minimum wage. For example, in France the cap was 4.5 times the minimum wage whereas in Portugal it was 3 times this level, and in Poland the limit was set at 40% of the national average wage. However, most other countries set a maximum level of wage support that could be paid. Therefore, irrespective of the percentage of income to be paid, the amount could not exceed this level.

Yet, in the medium to longer term the employment protection schemes can impact on workers' incomes through the extent to which (and the level) social security and pension contributions continue to be paid while a worker is working reduced hours and receiving a lower income. In all EU countries, with the exception of France, Hungary, Ireland and Latvia, these contributions continued to be paid at a level reflecting the full salary and in most cases, this cost was covered by the state.

Also, the duration for which support could be claimed varied significantly. Germany and France offered support for the longest periods of time while eligibility criteria were met, whereas in Belgium, support for full-time workers was limited to eight weeks. The relatively short durations over which support could be

claimed in a number of countries, like Estonia, Hungary, Poland and Romania, were delimited by the time periods for which the measures were implemented.

In terms of source of funding, only Czechia, Estonia, Lithuania and Poland required employers to contribute to this cost from the outset. The share of the cost borne by the state in Finland was also limited, with the remainder covered by the unemployment insurance system, which is formed by contributions by both employers and workers. On the other hand, in Hungary, the state covered the full cost of hours not worked up to 50% of unworked hours. In Poland, the employer contribution required was set at 60%. In addition, these countries also required employers to cover a greater share of ongoing social insurance contributions. In France and Slovenia higher employer contributions were subsequently also introduced and Germany restricted the continued payment of employer social insurance contributions after June 2021 to employers offering training.

4. COVID-19 impacts on employment levels in Bulgaria

After reaching the highest peak of COVID 19 infected cases in November 2020, since March 2021 the Bulgaria faced another wave, which continued by the end of May 2021. As of 8 September 2021, the total number of cases since the outbreak is 467 000 and the number of fatalities is 19 335. According to official data a little over 2 million doses of vaccines have been administered (1st and 2nd dose), or approximately 16% of the population is vaccinated. This places the country last among the EU member states which have reached their goal for 70% vaccination by September 2021.

As the emergency epidemic situation has been prolonged the government of Bulgaria introduced a set of social and economic measures. Currently as of beginning of September 2021, the Delta variant is predominant in Bulgaria and the number of vaccinated are insufficient for collective immunity. The experts expect the outbreak of the fourth wave during the same period. The extraordinary epidemic situation, which replaced the state of emergency introduced in mid-March 2020, has been extended until August 31, 2021, then extended for two more months, and so far, is being extended on a roll-over basis every month.

Since the first wave of the outbreak, the government implemented a range of containment measures, including social distancing and travel restrictions. The current restrictions in Bulgaria are not as many, with mandatory mask wearing,

disinfection, maintaining distance of 1.5 meters and utilizing only 30% of the capacity in indoor public spaces. Restrictions of different severity apply for travelers visiting Bulgaria according to three colour zones – red, orange and green.

According to the Ministry of Finance, in 2020, Bulgaria's GDP decreased by 4.2% in real terms. On the demand side, most affected by the crisis caused by COVID-19 were investments and exports of goods and services. Final consumption grew by 1.8% in real terms. Increased government spending led to a 7.5% rise in public consumption. At the same time, private consumption increased by 0.2%. Restrictive measures against COVID-19, reduced employment and higher uncertainty have led to a sharp growth slowdown but not a decline. Consumption was supported by growth in household disposable income driven by increasing compensation in the industrial and General Government sectors, social transfers and pensions. The budget forecast of the Ministry of Finance foresees GDP of BGN 124.5 billion and real growth of 2.5%, following a decline of 3% in 2020.

Expected unemployment rate for 2021 is 5.2%, to stabilize in 2022 and 2023 to 4.6%. On 30 March, the government introduced a decree for compensation of wages for the most affected businesses. The ones most affected from the lockdown receive compensation without any conditions and all the other businesses are entitled to support provided they can prove a decline in sales of more than 20%, 30% or 40% for different target economic sectors. Another condition is also that companies do not have unpaid taxes. The government covers 60% of the wages (income on which social and health insurance contributions are calculated) of workers and the employer should cover the remaining 40%. The governmental decree was renewed in July 2021 prolonging this particularly successful measure (known as the 60/40 measure) for the time in which there is extraordinary epidemic situation. Businesses can apply to take advantage of the measure through the national employment. According to the NSI (national statistical institute), as of beginning of July the measure brought to some 13 thousand businesses nearly BGN 1,5 billion, saving around 304 thousand jobs.

The state provided 4.5 billion BGN to support the business. Out of these 1 billion will be used to support the business in order for them to retain their workers. There are multiple measures in support of businesses grouped according to the type of economic operator that is targeted (SMEs, big enterprises, the self-employed, and farmers). Currently, there are some special measures for the tourism

and transport sectors as the ones that suffer the most in economic terms. Some of the measures are grants for wages or working capital; others are loans with favourable conditions. Such loans guaranteed by the state have been negotiated between the Bulgarian Development Bank (BDB) (state-owned) and several commercial banks. The Portfolio Guarantee Programme in support of the liquidity of the companies affected by the pandemic was also extended. The deadline for including the loans in the guaranteed portfolio has been extended until December 31, 2021. Companies can apply for financing until December 20, 2021. The programme is open to all sectors of the economy and is implemented by the partner commercial banks throughout the country. BDB provides guarantee coverage of 80% of the principal of each loan under the measure. At the initiative of the Ministry of Economy, work is underway to add the Business Finance Programme to the new Recovery Programme announced in support of businesses through guarantees from the Fund of Funds and BDB.

Deadline for annual close down of accounts and tax payment of corporate tax was extended to 30 June 2020. Some other possibilities were to reschedule tax payments (by individuals and legal entities), and to ease and renegotiate the terms and conditions for bank loans instalments. During the debates of these measures there were some comments that requirements to companies are very restrictive (e.g. sectors, revenues, no tax and social security liabilities).

Financial measures for workers can be divided into three categories:

such aimed at workers on unpaid leave,
workers who continue working and their salaries are covered by the 60/40 measure,
measures aimed at workers who have lost their job.

Workers whose contracts have been terminated can receive unemployment benefits, provided that:

- They have contributed to the “Unemployment” Social Security Fund for at least 12 out of the last 18 months before their social security contributions stop
- They are registered as unemployed in the Employment Agency
- They have not acquired the right to receive a pension or do not receive a pension based on their employment history

- They are not in employment, hence they are not obliged to pay social security contributions under Bulgarian or another country's legislation, with the exception of workers who have short-term contracts in agriculture

The daily amount of unemployment benefit depends on the reason for termination of the employment contract and on the average daily wage the worker has received in the past 24 months, while the duration of this benefit depends on their length of service. The 2020 thresholds are set as follows:

- Minimum benefit amount per day is 12.00 BGN (6.14 EUR)
- Maximum benefit amount per day is 74.29 BGN (37.98 EUR)

For length of service of up to 3 years, the benefit can be received for 4 months. In the bracket between 3 years and 1 day and 7 years length of service, the period is 6 months, in the bracket 7 years and 1 day to 11 years – 8 months, in the bracket 11 years and 1 day to 15 years – 10 months. The maximum period to receive the benefit is 12 months (for workers with length of service of more than 15 years). If the employer has terminated the worker's contract one-sidedly, the worker will be able to receive the unemployment benefit as described. However, if the worker has terminated the contract on her own initiative or has agreed with the employer on the termination, then the worker is eligible only for a benefit of 12.00 BGN per day for a period of 4 months.

During the pandemic situation families with children up to 14 years of age are entitled to monthly aid, provided they meet certain requirements:

- One or both parents cannot work remotely or be on paid leave
- Upper earnings limit is 150% (BGN 975) of the minimum wage per member of the family
- The amount of aid monthly aid depends on days when children could not go to school/ kindergarten due to restrictions for the respective month and on the number of children

30 000 pupils from 1st to 9th grade (including 1 accompanying parent) will have a summer vacation in Bulgaria fully financed by the state. The Council of Ministers has approved an extension to the application deadline under BDB's interest-free loan guarantee programme for individuals temporarily unemployed due to the Covid-19 pandemic.

The deadline to apply for an interest-free loan under the programme is extended until the guarantee limits for financing by partner commercial banks are exhausted. BDB is in the process of signing annexes with the banks that still have a free limit for financing under the programme, so that the process of accepting applications can be resumed.

The anti-crisis measure enables the extension of interest-free loans of up to BGN 6,900 to individuals working on an employment contract, self-employed, agricultural producers and seasonal workers who have ceased working due to the Covid-19 pandemic. The maximum repayment period is 5 years, with a grace period of at least 6 but not more than 24 months. The loans are exempt from fees, commissions and penalties.

So far, the Bulgarian Development Bank has approved loans for over BGN 559 million under the two-state anti-crisis programs, supporting 52,320 individuals and providing opportunities for financing to more than 1,800 companies.

Since the outbreak of the pandemic, based on recommendations sent to employer associations in March 2020, employers were obliged to update their risk assessments for workplaces with the support of Occupational Health Service Companies (all companies in Bulgaria are obliged to have a mandatory subscription service from such company). The updated risk assessments are supposed to describe the Covid-19 related risks, as well as the necessary protective measures to mitigate the infection at the workplace.

The requirements for accessing funds are in all cases cumulative and, arguably, cover quite a limited group of workers. Applying for funds is and has always been a highly red-tape process, which can be a barrier for workers, especially because governmental institutions encourage online applications because of social distancing measures. Additionally, there may be a language barrier for workers from minorities.

5. Conclusion

The paper made an overview of the main impacts on employment levels in the EU as a result of the COVID-19 pandemic. It commented on different levels of unemployment and the measures introduced by governments for the period 2020-2021. A major contribution of the paper is that it compares the dynamics

in employment levels during the financial and economic crisis in 2008-2010 and the ones during the onset of the COVID-19 pandemic in 2020. Another important observation is that in the medium to longer term the employment protection schemes can impact on workers' incomes through the extent to which social security and pension contributions continue to be paid while a worker is working reduced hours and receiving a lower income. This is going to be another challenge to the social security systems worldwide, as well as to the healthcare package as both are also tied up to the salary levels. In this respect, the negative impact on employment is expected to have long term impacts on all economic indicators.

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8

GERMANY, THE PANDEMIC, AND ITS “SOCIAL MARKET ECONOMY”

Ali Erdem Bayülke

Abstract

German ordoliberalism became a contested topic especially in the aftermath of the 2008 crisis and its following Eurozone debt crisis. Some attributed Germany's response to the crisis to their ordoliberal heritage, and Germany's insistence on an alignment towards its ordoliberal thoughts. On liberal perspectives, some argued that Germany (and Europe) had very little in accordance with the ordoliberalism of the Freiburg school. Other critical voices also espoused a similar view in that they considered ordoliberal theory to have very little importance as a guide for German officials, what rather guided policy was pragmatism, the pressures of global labor competitiveness, the needs of Germany's socio-economic actors and so on. Others also question whether or not ordoliberalism and neoliberalism are two different approaches and if they should simply be bundled together. The matter is also complicated by Germany's declarations of its “social market economy” as not just a Germany specific model, but a model globally viable, and also likely, to fix the problems of crisis countries. This paper aims to analyze the response Germany's “social market economy” gave during the pandemic, and what it means for ordoliberalism, its viability for other countries, and its legitimacy as a vastly different alternative for neoliberalism.

Introduction

Ordoliberalism has been and still is a matter of contention, it is regarded as having shaped Germany's and the European Union's economic model, and the reason behind policies of austerity, but some also argue that adherence to it is not the primary concern for Germany (and the EU). Bastian van Appeldoorn (2009, p. 22) criticized what he called as the rising ideology (or model) of “emdedded neoliberalism” in European economic governance, he did not differentiate “ordo” and “neo” liberalisms, yet he identified the characteristics of the “Continental European

model”, noted its vast contradictions and split it from the “Anglo-Saxon” style of neoliberalism (Ibid, pp. 32-33). With the 2008 Financial Crisis and the following Eurozone debt crisis, the same model was taken as “ordoliberalism” was blamed for having caused both the debt crisis, and later aggravated it by policies of austerity, called a “dangerous idea” (Blyth, 2013), and an ordoliberal iron-cage, (Ryner, 2015) and Germany’s insistence on economic policies being in-line with its ordoliberal ideology was given as a reason for Germany’s firm stance towards crisis countries (Crawford & Rezai, 2017). Werner Bonefeld and Gareth Dale on the other hand argued that an insistence for policies to be “ordoliberal” was not the reason for German policies, Dale (2019, p. 1048) for example argued that there was no “rulebook” to which German officials kept themselves adherent to, while Bonefeld (2019, pp. 997-99) emphasized the need for both German and European labor to be competitive globally (in terms of labor costs) as the driving reason for Europe’s crisis response. Alan Cafruny and Simona Talani (2019, p. 1012) made a similar point in that German policies were not determined purely by ideas, but primarily shaped by the needs of Germany’s “most important socio-economic actors” (the export capitalist class). Another emphasis was that Germany had selectively practiced its ordoliberal model (Cafruny & Talani, 2019, p. 1012).

Indeed, this can also be seen as a criticism by the liberal side, as various scholars writing for Germany’s Walter Eucken Institute have argued similarly, that ordoliberalism had not had primacy in influencing the development of Germany’s economic model, and that Germany had followed ordoliberalism “too little” during the Eurozone crisis (Feld, Köhler, Nientiedt, 2015). Looking at ordoliberalism as a “rule-oriented approach”, they note that Germany has been just as pragmatic as other countries when it came to following, or breaking from, the economic rules of the Eurozone as well as its own (Ibid, pp. 15-18). Granted, its debatable how much this absolves “ordoliberalism” from the blame. Seeing as however Germany in practice deviates from it, from Ludwig Erhard’s near twenty-year reign along with Müller-Armack of German economy, and contemporarily, Angela Merkel has for example spoken at an event marking the “70 Years of Social Market Economy” (Escritt & Martin, 2018), and praised Emmanuel Macron’s commitment to a social market economy (Reuters, 2017, May 8). Peter Altmaier (2019) in his “National Industry Strategy 2030” also declared Germany as a “social market economy”, following in the legacy of Erhard, as well as reiterating the thought that the “social market economy” can be a global model

of economic order. The German Ministry of Economic Affairs also has a whole page devoted to explaining the “social market economy” and Erhard’s legacy.¹ Deviations seem to be characteristic of ordoliberalism to begin with, as Erhard himself is noted to have not followed for example the full extent of the “envisioned” competition, or anti-trust policies, by H.M. Oliver, (1960, p. 140) then Razeen Sally (1994, p. 474) notes Germany’s move towards an encompassing welfare state both through Erhard’s reign and onwards. “Real ordoliberalism” is thus hard to find at any point of Germany, even though German officials declare themselves ordoliberals and followers of the “social market economy”. Interestingly, Viktor Vanberg (2004) also considers there to be an “erosion of market principles that has taken place in Germany during the last half century”, but instead attributes it to Müller-Armack’s “social market economy” thought rather than the Freiburg ordoliberalism, as he considers Armack’s views on “social provision” to be unconstrained (Ibid, p. 2). Although Armack (1978, p. 327) does note that any such social provision has to be in conformity to market (Peacock & Wilgerodt 1989 p. 9.). This paper seeks to look at Germany’s policies during the pandemic and their “attunement” to ordoliberal thought or lack-thereof, to better understand the practice of ordoliberalism and its validity as a global model.

Ordoliberalism and its tenets

Ordoliberalism is associated with a “constitutional economics”, Vanberg (2004, p. 2) considers it a “procedural and rule-oriented liberalism”. The strong state writes the economics constitution, the general framework of the rules, and then does not make discretionary (political) interventions to it, resisting the particular interests of labor unions and monopolies alike (Böhm, 1989, p. 64; Erhard, 1950, p. 103; Oliver, 1960, pp. 125-26 and 137; Sally, 1996, 234 and 243). Of course, as ordoliberals also noted, the adherence of Germany and German officials to some of these rules is quite selective, Erhard’s near twenty-year reign during which he had various ordoliberals as his advisors such as Müller-Armack, amongst others (Wilgerodt & Peacock, 1989, p. 3). has notably been “not very ordoliberal” in practice either (Sally, 1996, pp. 249-50). As such, deviation from the rules is not just a 21st century matter, and considering Germany’s touting of its social market economy as a global model, and insisting on its application by other

1 The Federal Ministry of Economic Affairs of Germany. “Prosperity for all. A thriving economy combined with a social rebalancing scheme.” <https://www.bmwi.de/Redaktion/EN/Dossier/the-social-market-economy.html>

states including European partners, and also its officials insistence on following “the rules” of the Eurozone, it must be regarded that in practice, for ordoliberals pragmatism wins over following “the rulebook”. As such, when Germany’s break from the Stability & Growth Pact and the bailouts of its Landesbanken was not acting according to the rules but pragmatically, (Feld, Köhler, Nientiedt, p. 15). Although this does not mean that ordoliberalism itself is absolved of blame or criticism. Instead, as David Harvey (2007, p. 21) noted for neoliberalism, when pragmatics and theory clash, the choice is pragmatism.

Although there are various contradictions of ordoliberalism, this paper will mainly look at their views on social welfare and competition policy, as these two areas are which Germany made moves on during the pandemic. A focus on social welfare specifically should help dispel the illusion of social democracy noted by Dale (2019, p. 1056). Although Vanberg (2004, p. 2) blames Müller-Armack’s views on “social provisions” for Germany’s break with ordoliberal tenets, Wilhelm Röpke, Alexander Rüstow, and Ludwig Erhard himself, who are also regarded as part of the “social market economist” wing of ordoliberals, were quite similar in their regard for social welfare with those of the Freiburg wing (Sally, 1996, pp. 248-50). Even Müller-Armack (1978, pp. 326-27; Armack, 1989, pp. 84-85) himself believed that any welfare provision by the state must be in conformity with the market (which is not so much an opposite to the views of the wider ordoliberal thought) (Peacock & Wilgerodt, 1989, p. 10). Of course, contrary to other social market economists, Müller-Armack (1989, p. 84) considers some form of redistribution of income to achieve social justice as an integral part of his social market economy. All the while, Müller-Armack was working under Ludwig Erhard, not vice versa, and as such, to explain Germany’s deviation from ordoliberalism it is also necessary to look at Erhard’s views rather than just attribute it all to Müller-Armack. Ludwig Erhard’s *Prosperity Through Competition* is both a book on his successes as a minister and his economic views. Interestingly, although he is blamed by Sally to have allowed an expansive welfare state to take hold in Germany, he attacks it, calling it the “Modern delusion” (p. 185). Erhard, (p. 186 and 189) also argues that “economic freedom and compulsory insurance are incompatible”. For Erhard (1950, pp. 7 and 72-74) one limiting factor for any social provision must be currency (and price) stability. It should be noted that price and currency stability is near unanimously championed by the other ordoliberals, (Böhm, 1989, p. 56; Erhard, pp. 194-99; Röpke, 1960 p. 192) hence the labeling of ordoliberalism as an ideology of austerity and fiscal responsibility

and the famous inflationary concerns of Germany. Finally arguing that calls for “compulsory collective security” and the “push towards a welfare state” can only bring disaster, and would “surely kill all human virtues” (Erhard, 1950, p. 187). As such, Sally’s (1996, p. 249) placement of Erhard away from the “Müller-Armack camp” and into the “Wilhelm Röpke camp” of social market economists, is quite apt. Röpke’s (1960, pp. 171-75) thoughts are similar, in that he prefers voluntary social assistance (charities) to those of compulsory, state/government distributed welfare, which makes the state gain unimaginable powers and turns people into sheep, and the government into a shepherd. Röpke’s story of a prudent man who saved money in good times to prepare for the bad, being forced (by the government) to take care of the “profligate ones” who did not, notes here an injustice and explains his view towards the rising welfare states (Ibid, p. 174). Finally, the small amount of social security that Röpke tolerates is where the weak and the helpless only receive “enough sustenance so that they do not become destitute, no more, no less” (Ibid, p. 176). Rüstow espouses similar views, and for both Röpke and Rüstow the “social crisis of their time” is collectivism and an erosion of the principles of “self-help” and so on (Oliver, 1960 p. 131 and 135; Sally, 1996, p. 245). The ideas of “self-help” “self-responsibility” feature in ordoliberal works prominently. For Röpke (1960, p. 161) for example, people should also privately budget for sicknesses that might prevent them from working. Thus, social policy of a social market is not a redistributive policy or a social democratic welfare state, but a social policy that will “integrate” the laborer into the market order (Bonefeld, 2012, p. 639; Sally 1996, p. 249) or as Bonefeld (2012, p. 635) says, “turn the laborer into an entrepreneur of labor power”. Ultimately, while Müller-Armack may have been more open to the idea of social provisions, to blame the turn of Germany towards a welfare state on just Müller-Armack wouldn’t be apt as for example Walter Eucken himself was an advisor to Erhard (Wilgerodt & Peacock p. “xv”) and Erhard himself as per his views in his *Prosperity Through Competition* was definitively opposed to the welfare state, and as such it was not as if Müller-Armack was the sole shaper of the direction German economy took. Also, Dale’s view that conception of the “social market economy” as a “social democratic maverick” is unfounded is apt, Germany’s move towards a significant welfare state has no basis under ordoliberalism, but it likely did due to the political realities and pragmatics of the Cold War.

Competition policy is also a matter of significance for ordoliberals, the question of private interests, creating cartels, monopolies, and oligopolies to manipulate

the price mechanism and the workings of the market is foremost. For Erhard (1950, p. 2) for example, ensuring free competition was a central to any country hoping to have a free social order. And hails his monopoly law as a milestone in Germany's economic reconstruction (Ibid, pp. 119-20). On the other hand, Oliver (1960, p. 142) notes that Erhard and his party has not as stringent a monopoly law as defended in the scholarly papers of ordoliberals. Müller-Armack (Armack, 1989, pp 82-83; Armack, 1978, pp. 325-26) too, although the "black-sheep" in terms of the extent of his social provisions, argues that "for competition to be main instrument of organization in our societies, it must be safeguarded by a clear structural framework." Although Vanberg (2004, pp. 1-3) considers the "social market economists" and the Freiburg school to separate due to their stances on social policy, at least for competition, they are of like mind. For ordoliberals "effective competition" must be established if not free competition, a constitutional arrangement must be made so that private interest can not subvert the free workings of the market (Armack, pp. 82-85; Böhm, 1989, p. 56; Sally 1996, p. 237; Vanberg, 2004, pp. 9-11). The threat of monopolies and law to prevent their formation is not just a thought of Erhard and the social market economists, but also of principle importance for the Freiburg school Böhm (p. 56) and Eucken (29-35). Competition thus serves as the central piece of their thought, *laissez-faire* is criticized for giving rise to monopolies, although the government too is often blamed for their rise (Sally, 1996, p. 237).

Of course, although theory dictated a fight against welfare, the welfare state took hold in Germany, and similarly, although theory gave the utmost importance to battling monopolies and oligopolies, practice was the opposite. As Blyth (2013, p. 132) sarcastically noted the various (but not all) century old German industrial giants and their monopolistic or oligopolistic positions, in practice German economic strength is attributed to its strong oligopolistic corporations (Bellofiore, Garibaldi, Halevi, 2011). Sally (1994, p. 475) for example recognizes the further rise of monopolies and oligopolies in Germany during Erhard's reign. And today, as an example, German makes along with other European makes participated in a truck cartel making around 9 out of 10 of all trucks in Europe, with the market shares of Volkswagen subsidiaries MAN and Scania as well Daimler making around half of the European truck market, with the competitively inclined EU giving a slap on the wrist while national governments including Germany were

quiet.² And with European commissioners as well as German officials aiming for the creation of more European (and German) “champions”,³ it seems that from Erhard to this day, ordoliberal practice has not been as eager to fight anti-competitive practices as their theorizing dictated. Having looked at the dictates of ordoliberal theory, some developments in Germany in terms of its social welfare policies, and other developments will be discussed.

German Covid relief

German covid relief efforts included the short-time work allowance (*Kurzarbeit*), guarantees, liquidity, and loans offered by the state-owned KfW Group (to the tune of 757 billion euros), other support for companies through the economic stabilization fund (WSF), and state and municipality level relief.⁴ A thorough look at the destinations of these funds and the amount set aside for employees and employers has led Thomas Sablowski (2020) to deem the response “class characterized”. Vast majority of the money put aside for stimulus and support has been for corporations, with lesser and lesser devoted to as one goes down the socio-economic class. Larger companies have access to larger loans and guarantees (Ibid). As per June 2021, 8.6 billion euros have been used for recapitalization efforts through the WSF (largest recipient was Lufthansa who received close to 6 billion), while another 34 billion euros were given as loans.⁵ For the KfW Group support scheme, Sablowski notes that again largest recipients were large corporations with Daimler receiving 10 billion euros of credit, and 3 billion for Lufthansa (Sablowski, 2020). A Bruegel (November 2020) report on the central government’s financial efforts (amounting to 284.4 billion euros) also shows us the various destinations of relief offered by the government. With a hundred billion set aside for the aforementioned WSF, a 25 billion euros for companies with a decline in revenue of 60%, 6 billion set aside for “climate friendly mobility”

2 The European Commission fined the cartel a total of 2.93 billion euros. There were no fines by national governments. https://ec.europa.eu/commission/presscorner/detail/es/IP_16_2582

3 A speech by commissioner Neelie Kroes in 2006 here: https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_06_480, and another speech by commissioner Pierre Moscovici in 2017 are some examples: https://ec.europa.eu/commission/presscorner/detail/en/speech_17_286.

4 IMF report on policy responses by country including Germany. <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#G>

5 Companies that took part of WSF are available on German Ministry of Finance website. <https://www.deutsche-finanzenagentur.de/en/economicstabilisation/>

(transportation), 4.4 billion for artificial intelligence investments and so on, showing that a large part of the government budget also went towards companies. The 20 billion euros set aside for cutting VAT rates is notable, Sablowski questions how helpful this would be for the working and the middle class, as VAT reductions might not be translated to lower prices, his question is all the more important as food prices have been globally rising, setting records (FAO, 2020 June 3). Considering that the working classes and the middle classes spend more of their income, and spend most of it on subsistence, the reduction in VAT likely did not translate to lower prices, and Germany has not been an exception to the rise food prices (Look, 2021 March 1). Support that was likely directly beneficial for those in need were in rather smaller sizes, with 7.7 billion set aside to expand and increase access for child allowance and income support, a 5.2 billion for health and long-term care insurance, a 5.3 billion to help cover the social benefits system and so on (Bruegel, 2020).

A 23.5 billion euro was also set aside for Germany's famous *Kurzarbeit* (short-time work scheme). This scheme was notably praised by the IMF for its success during the 2008 crisis, yet its insufficiency was brought to attention for the pandemic (IMF, 2020, June 15). The IMF's attention to the marginally employed is significant, as around 7.6 million of Germany's 42 million workforce work “mini-jobs”, and of which around a million was lost during the pandemic (The Local, 2021 February 14). The marginally employed can not benefit from *Kurzarbeit*, and whether or not they worked a mini-job to supplant their full-time work (The Local 2020, January 22). Although many may have been working mini-jobs as their second job, the practical reality is that whether it is their first or second job, it just changes the severity of the loss in standards of living. Besides which, *Kurzarbeit* is covered by taxpayer's money, thus it means that workers are subsidizing their own pay-cuts, while *Kurzarbeit* definitely helps save jobs, it mostly takes on the employers burden of wage payments, while employees take pay-cuts, and will further subsidize this scheme through their taxes, hence the class character noted by Sablowski, on the other hand, the IMF also notes another character, two thirds of all job losses in Germany through January to October 2020 were women (Mineshima & Mai, 2021). At the height of the pandemic, around 6 million workers were a part of the scheme, which fell down to 2.3 million by May, and apparently cost at least 35 billion euros through the pandemic (Martin, 2021 July 5). Finally, for companies receiving help through share purchases,

Sablowski (2020) notes that the state has acted as a silent participant in a rather “market conforming” way.

Still, for ordoliberal theory, social provisions offered were minimal, thus it should be normal that the German social market economy has not set aside much to take over the burden on the poor, on the other hand, ordoliberal theorists were adamant on the principles (and virtues) of “self-help”, “self-responsibility”, “liability for economic choices”, and so on (Röpke, 1950, p. 165; Röpke, 1963, p. 254; Sally, 1996, p. 245), these principles are also found in the works of Milton Friedman (2020, p. 201) and Friedrich Hayek (1944), whose works are found to be central to the neoliberal variant. And similar to neoliberalism, in practice, what happened was the socialization of the losses, and bailouts for irresponsible banks (and companies in this case), with the taxpayers taking over their burden, this happened not only in the “neoliberal U.S.” but also in the social market economy of Germany through SOFFIN and for Varoufakis (2016, p. 158) and Stiglitz (2017, pp. 202-03), through the bailout packages for the crisis countries of Europe. It is also considerable that this “ideology of austerity” seems to apply only to the workers, who take pay-cuts to keep their jobs, and also pay themselves for the short-time work scheme, while companies receive multi-billion euros through various schemes. Röpke’s story of the injustice of a prudent man having to cover for the burden of an irresponsible man who spent in times of good and left poor in hard times needs to be reminded here, as companies worth billions of dollars

Increasing protectionism during covid

Other developments include those for which hints were given by Peter Altmaier’s (2019) “National Industry Strategy 2030”. Namely, the protection of companies from foreign take-overs on the basis of “national security” and their “strategical importance” (Ibid, p. 2). Although towards the end, the end aim of Germany is cited as an “extension of multilateralism because it is the best guarantee of any kind against protectionism”, the rest of the paper highlights the necessity to protect certain sectors, and the incapability of companies at times to seek the advancement of the country (Ibid, p. 2 and 14). This of course is also contradictory with Germany’s practice itself, as Stiglitz (2017, p. 195) for example noted the “privatization” of a Greek airport to a company partially owned by a German state. Also, state-owned Deutsche Telekom has slowly increased its shares of Greece’s largest telecommunications company OTE to a current 45% in 2018,

in 2020, “OTE” sold its Romanian subsidiary.⁶ Meanwhile Germany in 2020 has taken steps towards further protectionism. Its move towards protecting companies in the healthcare sector may have been acceptable (Blackman, 2020 April 28), but that was not where the moves stopped, Germany in 2020 prevented the take-over attempt of a Chinese company of a German metals company on the basis of “national security” and instead let it shutdown (Shabalala & Daly, 2020, August 14). In 2021 it became apparent that further expansion of government protection for more sectors was on the line, although China is constantly cited as the target (and cause) of these protections realistically there are very little countries outside of Europe with companies that have the financial capabilities to take-over German companies (Reuters 2021, January 22). European economies (including Germany) were already considered to be practicing some type of neo-mercantilism (Bellofiore *et al.*, 2011) and these developments further show that the proponents of the free market and “level playing fields”, when it comes to practice do not take kindly to the equality of all market participants. Greece for example does not have the right to protect its “strategically important” sectors and is thus not an equal of Germany. Internal competition too has seen further monopolization and oligopolization as mergers and acquisitions have also been plenty, and many moves are lauded as “industry consolidation” (Busvine, 2021 February 26). Hence, the lack of strong anti-monopoly stance noted for Erhard and his party during Germany’s economic miracle continues, with still various companies in which the states of Germany or the German state itself holds veto rights, and sometimes with the backing of state agencies threatens to for example increase the infrastructure costs for telecommunications for which Deutsche Telekom exists as a monopoly (Reuters, 2019, April 19).

Conclusion

It thus seems par for the course for ordoliberalism to deviate from theory. Erhard did it, Schauble did it, and now Altmaier does it, while at the same putting it forth as a global model, an “economic system” not just specific to Germany but one that would help many countries of the world. The fact that Germany deviates from the theory does not absolve ordoliberalism, it only shows that in practice, this is what ordoliberalism looks like. Just as neoliberalism is practiced

6 News found on Telekom’s website. <https://www.telekom.com/en/media/media-information/archive/ote-agrees-to-sell-telekom-romania-612114>

contradictorily, ordoliberalism is also, Germany for example still holds significant influence over some of its companies, holding veto rights for Volkswagen, holding both veto rights and appointing board members for Deutsche Telekom, owning the third largest bank in Germany while at the same time prescribing privatizations to other countries, German companies freely penetrate other countries markets where as Germany prevents the take-overs of some of its companies, and has taken further steps to prevent take-over attempts over its companies. Thus, it is also not quite apparent if countries for which ordoliberalism is prescribed should follow the theory or Germany's practice. In another sense this could also be taken as the "class character of German international politics", as Germany is more equal than other countries, while take-overs by countries like China are "hostile" and full of "bad intent", German companies purchase of companies in key sectors are acceptable.

Here Cafruny and Talani's argument makes more sense, Germany selectively practices ordoliberalism, its primary guide for policies are in actuality the needs of its most important socio-economic actors, namely its export-capitalist class (Cafruny & Talani, 2019, p. 1019). When David Harvey questioned neoliberal practice and contrasted it with theory, he came to the conclusion that neoliberalism primarily worked as a class project, for the restoration of economic power to the capitalist elite, hence the constant deviation from theory in preference for pragmatism (Harvey, 2007, p. 70). Appeldoorn defends a similar view, calling "embedded neoliberalism" a class project (Appeldoorn, 2009, pp. 22-26). These views are more helpful in explaining ordoliberalism's deviation from theory, when ordoliberalism taken as a class project by Germany's (and Europe) most important socio-economic actors. In 2019, Bonefeld noted that German economic policy was not shaped by ordoliberalism but by the need to keep its labor globally competitive in terms of costs (Bonefeld, 2019). This for example explains why ordoliberal principles of "self-help", "self-responsibility", and "liability for economic choices" do not apply to companies, who have large funds devoted to support them through downturns, guarantee their liabilities, socializing their losses while workers have to take pay-cuts through short-time work schemes which are subsidized by their own social security contributions. Although it might be argued that Germany has "too little ordoliberalism" guiding it, it makes more sense that through such constant allusions to the ideals of social market economy and Ludwig Erhard (whose ordoliberal views are quite clear in his book), that although Germany is "lax" in practicing ordoliberalism, it does not absolve it, it only sheds

light on how it translates to practice. And although Germany had a strong and expansive welfare state, it developed despite ordoliberalism, with the views of ordoliberals on this matter quite clear, the trend of austerity for the masses and bail-outs for the few continue with the pandemic.

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THE GREEK COLLECTIVE BARGAINING SYSTEM BEFORE AND BEYOND THE COVID-19 PANDEMIC: FROM CRISIS TO CRISIS?

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Abstract

Until 2010, the Greek collective bargaining system was highly centralized while the collective bargaining and the collective agreements at the sectoral and occupational level were dominant. The fiscal adjustment programs (memoranda) imposed in the period 2011-2018 by the European Commission, the European Central Bank and the International Monetary Fund, focused on the drastic change of the institutional framework for the conduct of collective bargaining and for the conclusion of collective agreements. During this period, the process of “dis-organized decentralization” of the collective bargaining system took place that led to the collapse of collective arrangements at a sectoral and occupational level, the dramatic reduction of the coverage rate by collective agreements and the widespread dissemination of the use of individual labour contracts. This paper investigates empirically the evolution of the sectoral/occupational collective arrangements in the period 2000-2020, the volume of which consists an indication of the centralized or non-centralized nature of the collective bargaining system. We argue that after the formal expiration of the memoranda (2018) and during the pandemic, the Greek collective bargaining system has entered a new period of crisis, in which its decentralized nature tends to be permanent. In this new period, the institutional devaluation of sectoral/occupational collective bargaining and collective agreements is consolidated, while the new element is the institutional weakening of the trade unions’ collective action, as the crucial variable for the existence of collective bargaining.

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Keywords: collective bargaining, decentralization, trade unions, Greek economic crisis, COVID-19

1. Introduction

Until the onset of the economic crisis the sectoral collective bargaining was dominant in European countries over collective bargaining at enterprise level and/or individual determination of employment terms (Zisimopoulos *et al.*, 2019; Zisimopoulos, 2019). The recent economic crisis accelerated the pre-existing –since the 1980s– trend towards the decentralization of collective bargaining systems (Marginson *et al.*, 2003). In Greece, the decentralization of the collective bargaining system was accelerated by the imposition of fiscal adjustment programs (memoranda) and took the form of “disorganized decentralization”. The collective bargaining coverage rate was sharply decreased which led to a deterioration of the terms of employment and working conditions for more than 1,200,000 employees (approximately 75% of private sector employees). The outbreak of the COVID-19 pandemic puts further pressure on the wage employees and makes the prospect of revitalization of the sectoral/occupational collective agreements questionable.

In this context, the main purpose of the paper is to investigate the nature of the collective bargaining system before, during and beyond the pandemic period, by examining the evolution of sectoral/occupational collective arrangements during the period 2000–2020, the reduction of which indicates the transition from a centralized to a decentralized collective bargaining system. For this purpose, the present paper is structured as follows: In section 2 we examine the role of the institutional framework regarding the collective agreements, and the role of the trade unions’ strength for the existence of a centralized collective bargaining system, as well as the collective bargaining systems’ trend towards decentralization. In section 3 we examine the characteristics of the Greek collective bargaining system in the period preceding the occurrence of the COVID-19 pandemic. The fourth section is dedicated to the effects of the pandemic on labor relations. The fifth section includes the methodology adopted for the empirical investigation. In section 6 the results of the investigation are presented, while in the seventh section there are some concluding remarks and discussion.

2. Multi-employer bargaining: the institutional framework, the trade unions' strength and the decentralization trends

The extent to which the sectoral collective bargaining is the dominant level of bargaining compared to negotiations at the enterprise level determines the degree of centralization of a collective bargaining system (see Zisimopoulos, 2019). In centralized systems, the collective bargaining coverage rate is significantly higher compared to countries dominated by single-employer bargaining. In the latter, the potential of individual labour contracts use is expanded (Traxler, 2003).

The level of collective bargaining coverage is determined by: a) the strength of the trade union movement and b) the ensuring of the articulation of collective agreements at the different levels of bargaining (Zisimopoulos, 2019).

The determinants of labour unions' strength and consequently of union density have been examined in various studies (Ebbinghaus & Visser, 1999; Groot & Van den Berg, 1992, 1994; Freeman & Medoff, 1984; Ebbinghaus *et al.*, 2011; Schnabel & Wagner, 2007; Arleen, 1995; Visser, 2006: 47; Bean & Holden, 1992). According to these studies, union membership is more common among middle-aged workers, male workers, employees with secondary education, manual workers, workers in the secondary sector, full-time employees under open-ended contracts, public sector employees, employees in large enterprises, and employees covered by sectoral collective agreements.

From the end of the WWII and until the economic crisis of 1973 union membership increased worldwide. The period that followed the economic crisis of 1973 is a period of union density decline (see Ebbinghaus & Visser, 1999), which intensified during the last three decades (see among other studies Groot & Van den Berg, 1994; Western, 1995; Scruggs, 2002; Visser, 2006). The explanations proposed in the literature regarding the union decline are the rise of neoliberalism (Kouzis, 2007), the weakening of labour parties (Western, 1995), the changes in work organization and the spread of flexible forms of employment especially among young and female workers (Visser, 2006). Other factors were the shrinking of the public sector employment due to privatizations, the shrinking of the manufacturing sector that was traditionally the core of the trade union movement and the expansion of the service sector (*ibid.*).

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The articulation of collective agreements is based on two institutional pillars: a) the “favourability principle” and b) the “extension” of collective agreements (Marginson, 2015; see also Visser, 2013; Economakis *et al.*, 2016). The “favourability principle” ensures that collective agreements concluded at the enterprise level cannot contain terms that are worse than the terms of agreements concluded through multi-employer bargaining (sectoral/occupational level). The principle of “extension” ensures the binding nature of the sectoral collective agreements implementation even for employees who are not covered by collective bargaining, and thus increases the coverage rate and drastically limits the use of individual contracts (Zisimopoulos, 2019).

In the last three decades before the onset of the current economic crisis, a tendency towards decentralization of collective bargaining systems was developed worldwide. This process took the form of either (mainly) the maintenance of sectoral collective agreements but with a gradual undermining in favor of enterprise-level collective agreements (organized decentralization), or (secondarily) the replacement of sectoral collective agreements by enterprise-level agreements and individual labour contracts (disorganized decentralization) (Traxler, 1994; Traxler, 2003; Marginson *et al.*, 2003; see Zisimopoulos, 2019; Economakis *et al.*, 2016). In both forms the decentralization is associated with the undermining of the “favourability principle” and, especially in the case of disorganized decentralization, is accompanied by the abolition of the “extension” of collective agreements. In the case of disorganized decentralization, the most obvious effects are a reduction of the coverage rate, the expansion of the individual contracts use and, consequently, the deterioration of wages and terms of employment (Zisimopoulos, 2019).

In the same period a tendency towards unions’ weakening was developed worldwide. This decline was due to institutional changes, such as the decentralization of collective bargaining (Western, 1995), the increase of unemployment and the spread of flexible forms of employment especially among female and young workers, the shrinkage of the public sector as a result of privatizations (Visser, 2006). Moreover, the increase of the services sector at the expense of the industrial sector, where union density is traditionally higher, has also contributed to this decline (*ibid.*).

During the current economic crisis, the decentralization trend has been strengthened (Marginson, 2015) and the countries where multi-employer bargaining was dominant have also decreased, from 16 countries in 2007 to 12 countries in 2014 (Zisimopoulos, 2019). Moreover, in the majority of the countries where single-employer bargaining was dominant in 2014, both the coverage rate by collective bargaining and union density decreased (*ibid.*).

This process is fueled in many countries by the international organizations, which consider the collective bargaining as a main source of labour markets rigidity (Marginson 2015). The European Union policy encourages the erosion of the institutions for the regulation and protection of employment (Hyman 2018), undermining the so-called “European Social Model of Labour Relations” (Zisimopoulos *et al.* 2019). In this direction, the decentralization of collective bargaining according to Hermann (2016, p. 53) is a part of common structural reforms adopted at a different extent in many EU countries in response to the crisis, that “differ from regular austerity measures inasmuch as the proposed measures not only and sometimes not even reduce public spending; the main goal instead is to change the institutional framework governing employment and welfare issues as well as other aspects of the economy”.

3. The past of collective bargaining and trade unions in Greece

3.1 The period before the onset of the economic crisis

During the period 1955-2010, the Greek collective bargaining system was centralized. The “favourability principle” and the “extension” were in effect, while collective bargaining took place mainly at a national and occupational level and, from 1990 onwards, at a sectoral and enterprise level. In 1990, the Organization for Mediation and Arbitration (OMED) was founded, to the services of which employees could resort when employers refused to negotiate. The OMED’s decisions were equivalent to collective agreements (Zisimopoulos, 2019). In addition, the union density remained high during the period 1955-2010 (48.22% in 1977) but demonstrated an overall declining trend especially after 1992 (37.6% in 1992, 22.23% in 2010) (Visser, 2019; see Zisimopoulos, 2019).

The centralized nature of the collective bargaining system ensured high collective bargaining coverage rates. This fact was particularly important for the coverage of employees by collective arrangements at the sectoral/occupational level,

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given the structure of the Greek economy and the dispersion of employment in small enterprises. In Greece, until 2010, the establishment of a union required the participation of at least 20 employees, while the concluding of a collective agreement at the enterprise-level was possible in enterprises with more than 50 employees (see Table 1 and 2).

Table 1 Private sector wage employment by enterprise size and sector of economic activity, 2000-2007 (3rd quarter)

	20 employees or less		50 employees or less	
Sector of the economy/sector of economic activity	2000	2007	2000	2007
Primary sector	85.33%	90.71%	92.64%	94.13%
A	85.98%	93.50%	93.12%	94.97%
B	80.89%	73.93%	89.36%	89.09%
Secondary sector	65.97%	63.87%	77.98%	72.51%
C	54.06%	36.39%	80.33%	48.41%
D	55.18%	49.19%	70.37%	61.84%
E	27.05%	45.52%	54.31%	54.63%
F	89.75%	87.08%	94.05%	89.58%
Tertiary sector	74.18%	71.34%	83.75%	79.45%
G	78.05%	73.75%	86.54%	81.79%
H	75.77%	75.53%	83.89%	83.99%
I	61.62%	58.83%	76.05%	70.80%
J	53.80%	49.52%	73.03%	56.87%
K	75.13%	69.68%	82.92%	77.62%
L	41.00%	n.a.*	57.78%	n.a.*
M	76.39%	74.99%	88.82%	81.54%
N	63.92%	56.44%	74.51%	65.79%
O	75.39%	70.02%	83.28%	80.18%
P	98.23%	99.42%	98.77%	99.42%
Q	100.00%	8.42%	100.00%	18.02%
Total	71.20%	69.04%	81.67%	77.27%

Source: ELSTAT, author's calculations.

Note: the classification of the economic activities is based on NACE Rev.1.1.

*not available

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Table 2 Private sector wage employment by enterprise size and sector of economic activity, 2008-2016 (3rd quarter)

	20 employees or less		50 employees or less	
Sector of the economy/sector of economic activity	2008	2016	2008	2016
Primary sector	85.18%	85.39%	91.85%	89.04%
A	85.18%	85.39%	91.85%	89.04%
Secondary sector	65.07%	50.12%	73.86%	63.66%
B	40.43%	43.08%	51.69%	55.06%
C	49.90%	44.20%	62.86%	60.19%
D	55.20%	22.28%	56.68%	43.20%
E	47.45%	44.65%	67.14%	51.51%
F	87.51%	72.10%	90.32%	77.96%
Tertiary sector	70.47%	63.01%	79.40%	73.81%
G	72.94%	66.79%	81.73%	78.09%
H	52.72%	46.84%	67.70%	62.93%
I	76.64%	71.88%	84.32%	79.87%
J	41.41%	30.29%	50.65%	42.21%
K	48.10%	41.13%	62.58%	56.93%
L	76.16%	100.00%	76.16%	100.00%
M	75.14%	68.95%	82.56%	78.83%
N	67.91%	61.35%	77.22%	73.21%
P	75.74%	65.75%	84.06%	78.80%
Q	55.81%	53.09%	71.60%	64.81%
R	65.18%	58.74%	70.91%	64.09%
S	86.05%	86.39%	91.31%	91.72%
T	99.39%	98.69%	99.39%	98.69%
U	9.14%	23.86%	16.70%	58.71%
Total	68.87%	60.77%	77.71%	71.98%

Source: ELSTAT, author's calculations.

Note: the classification of the economic activities is based on NACE Rev. 2

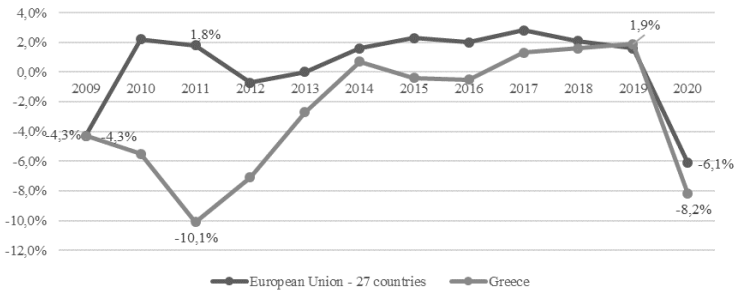
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3.2 The economic crisis period

The Greek economy has faced a deep recession since 2009 (Figure 3.1). In 2013 the growth rate of GDP was -10.1% and only in 2017 the Greek economy returned to positive growth rates. The recession negatively affected all sectors of the Greek economy, which was expressed in the decline of Gross Value Added (GVA) in all sectors.

Figure 3.1. Real GDP growth rate in Greece and EU-27, 2009-2020



Source: Eurostat

According to Economakis *et al.* (2015: 428) “[t]he Greek debt crisis and Greece’s recourse to the financial support mechanism in the conjuncture of global economic crisis pose the question of the ‘structural characteristics’ of the Greek economy”. The Greek economy is an “extraverted economy” with “relatively weak domestic sectoral productive linkages (especially in manufacturing industries and high-tech industrial sectors), strong specialization, relatively low level of industrial and technological development, ‘unfavorable’ relative income elasticities of demand, and accordingly relatively low international competitiveness” (*ibid.*: 439). Given the above, the Greek economy within the EU and euro area faced the deterioration of its position in the international competition (due to the low degree of its “structural competitiveness”), which was expressed in the increasing current account balance deficits from 1994 and onward (*ibid.*: 428-429). The financing of the deficits of the current account balance before the 2008 economic crisis and the resort of Greek governments to the support mechanism in 2010, relied

mainly on raising funds from the international financial market (Economakis *et al.*, 2016: 55-56). The mainstream (neoliberal) argument of the international organizations (see IMF, 2012) and Greek governments was (and still is) that the recovery of the Greek economy's competitiveness depends on price competitiveness improvement, through the imposition of the so-called "internal devaluation", i.e. the reduction of labour costs through structural changes in the labour market and austerity policy measures (see Economakis *et al.* 2016) on a long term base.

In this direction, the recourse of the Greek governments to the support mechanism was accompanied by the Memoranda imposed by the EU-ECB-IMF and incorporated into Greek legislation. The memoranda focused on austerity measures (see Zisimopoulos & Economakis, 2018) and the reforming of the institutional framework for collective bargaining (Zisimopoulos *et al.*, 2019; Economakis *et al.*, 2016), and took place in conditions of increased unemployment (Table 3) and, therefore, of intense pressure on the labor movement (reduction of union membership by 26.45%).

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Table 3 Unemployment by sector of the economy and by sector of economic activity in Greece, 2008-2019 (3rd quarter)

Sector of the economy/sector of economic activity	2008	2013	2019
Primary sector	1.01%	3.43%	2.62%
A	1.01%	3.43%	2.62%
Secondary sector	5.44%	33.16%	15.48%
B	5.27%	21.93%	6.37%
C	6.12%	26.38%	12.82%
D	4.13%	19.07%	10.79%
E	11.62%	36.16%	23.69%
F	4.07%	45.08%	21.34%
Tertiary sector	4.35%	20.47%	11.56%
G	4.37%	23.28%	12.07%
H	3.36%	21.89%	8.67%
I	7.05%	26.86%	14.09%
J	6.01%	23.96%	8.85%
K	2.78%	10.84%	4.31%
L	0.00%	27.56%	17.57%
M	2.98%	15.04%	7.93%
N	6.39%	31.50%	15.71%
O	2.71%	15.57%	9.57%
P	4.47%	14.77%	12.10%
Q	3.16%	13.99%	9.47%
R	8.18%	29.62%	21.20%
S	4.81%	22.33%	16.80%
T	4.82%	27.55%	21.20%
U	0.00%	16.74%	3.33%
Total	7.27%	27.20%	16.36%

Source: ELSTAT, author's calculations.

Through the Memoranda that were incorporated into the Greek legislation and were in effect during the period 2010-2018, the Greek collective bargaining system was led to a “disorganized decentralization”. The legal reforms implemented

for the implementation of the memoranda guidelines led to: (see Economakis *et al.*, 2016; Kouzis, 2018; Zisimopoulos, 2019):

- a) the weakening of the National General Collective Agreement
- b) the abolishment of both the “favourability principles” and the “extension” of collective agreements
- c) the abolishment of trade unions’ right for unilateral resort to the OMED services (until 2014)
- d) the strengthening of collective bargaining at the enterprise level, even in enterprises that employed less than 20 employees.

The immediate consequences of the “disorganized decentralization” of the collective bargaining system were (Zisimopoulos, 2019):

- 1) The drastic reduction of collective arrangements at sectoral/occupational level and a marginal increase of those at the enterprise level
- 2) The drastic reduction of the coverage rate (100% in 2010, 21,93% in 2014, 25,46% in 2016, see Table 4).

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Table 4 Collective bargaining coverage rate in Greece, 2007-2016

Year	Workers with the right to participate in collective bargaining		Workers excluded by law from collective bargaining	Total wage employment	Collective bargaining coverage rate*
	Employees covered by collective agreements	Uncovered or employees under individual employment contracts (estimate)			
2007	2,068,111	0	882,489	2,950,600	100.00%
2008	2,120,228	0	875,547	2,995,775	100.00%
2009	2,071,276	0	877,349	2,948,625	100.00%
2010	1,958,827	0	867,573	2,826,400	100.00%
2011	1,581,568	179,323	825,184	2,586,075	89.82%
2012	1,206,948	384,191	749,186	2,340,325	75.85%
2013	937,020	547,537	728,693	2,213,250	63.12%
2014	339,600	1,208,806	714,719	2,263,125	21.93%
2015	391,500	1,258,142	698,233	2,347,875	23.73%
2016	431,800	1,264,350	724,400	2,420,550	25.46%

Source: Visser (2019), adapted by the author.

* The AdjCov index has been used (employees covered by valid collective bargaining agreements, as a proportion of all wage and salary earners in employment with the right to bargaining).

For a very short period of time (August 2018-October 2019) after the official expiry of the memoranda, there was a weak revival of the “favourability principle” and of “extension” that did not lead, however, to a remarkable increase in the volume of collective agreements (Zisimopoulos *et al.*, 2019; see Section 6). In October 2019, the neo-liberal government of New Democracy set new restrictions both on the implementation of the “favourability principle” and of “extension”, as well as on the use of trade unions’ right for unilateral resort to the OMED services (Zisimopoulos, 2019). At the same period, both the SYRIZA-ANEL government (Law 4512/2018) and the New Democracy government (Law 4635/2019) sought to impose restrictions on the unions collective action, and in particular on their right to strike, which is the basic mean of exerting pressure during a period of collective bargaining (Zisimopoulos, 2019).

4. The period of covid-19 pandemic

The outbreak of the pandemic found the Greek labor movement already in a difficult position, due to the conditions that had already formed during the economic crisis period and immediately after the official expiry of the memoranda. In contrast to other European countries where the employment protection measures during the pandemic have been the subject of collective bargaining with the unions and have been reflected in collective agreements (Kapsalis, 2021), in Greece protection measures have been the result of unilateral imposition by the government, which essentially is an institutional devaluation of collective bargaining. The key features of the measures taken during the pandemic and lockdown (March 2020-May 2021) are the limited protection against redundancies, the flexibility regarding the working time and workplace, the suspension of employment contracts, the salary substitution from a “special purpose allowance”, and the limited control over violations of labor legislation (*ibid.*).

It must be noted that the suspension of employment contracts, creates circumstances of quasi unemployment that negatively affects union membership and therefore the dynamic of collective bargaining. More precisely, in March of 2020 205,984 enterprises suspended their activities (14.6% of Greek enterprises), in which 1,063,098 persons were employed, that represented 25.4% of total employment (Kritikidis, 2021).

As a result of the conditions shaped during the pandemic, 52% of employees work overtime, 40% are not paid for overtime work, and 60% of part-time employees report that work more hours than those set in their contracts (INEG-SEE, 2021). A study by Eurofound (2021) points out that Greece is the country that has suffered the highest portion of job loss by employees among all EU members during the pandemic.-

All factors mentioned above negatively affect the union density rate, undermine unions' strength, and their position in the collective bargaining process.

5. Methodology

The research question empirically investigated is the evolution of collective arrangements (collective agreements and arbitrational decisions) at the sectoral/occupational level during the period 2000-2020. For this purpose, the qualitative

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content analysis is adopted. The data consist of 2,284 collective arrangements which are derived from the OMED online database.

The sampling unit is the collective arrangement, and the unit of analysis is the whole text of the collective arrangement. The coding categories are the period (before, during and after the official expiry of the memoranda, as well as the pandemic period), the year of arrangement, the sector of the economy (primary, secondary and tertiary sector) and the sector of the economic activity (in accordance with NACE Rev2.).

It must be noted that we use the term “sectoral/occupational level collective arrangements” because in most cases collective arrangement at a sectoral level do not cover all the employees of a sector, but the employees of certain occupations within a sector.

6. Results

The analysis of the results concerning collective arrangements during the period 2000-2020 (Table 5) shows that 2020 –the year the pandemic broke out in Greece– is the year in which the least sectoral/occupational collective arrangements were concluded. Moreover, the analysis of the collective arrangements during the period 2000-2020 (Tables 5 and 6) shows that their majority was concluded in the tertiary sector, while in the period 2011-2018 there was a drastic reduction of the collective arrangements in all sectors of the economy. The partial restoration of the “favourability principle” and of “extension” seems to have led to a marginal increase of collective arrangements in 2018. However, the re-undermining of the institutional framework for collective bargaining (2019) and the outbreak of the pandemic (2020) explain the reduction of collective bargaining in the period 2019-2020.

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Table 5 Collective arrangements at sectoral/occupational level by sector of the economy, 2000-2020

	Primary	Secondary	Tertiary	Coverage in more than one sector of the economy	Total
2000	1	81	81	13	176
2001	1	45	104	11	161
2002	2	84	95	12	193
2003	1	46	115	10	172
2004	2	91	137	13	243
2005	1	50	125	10	186
2006	1	95	126	11	233
2007	2	50	100	6	158
2008	3	97	134	11	245
2009	0	44	64	6	114
2010	0	42	69	5	116
2011	2	22	38	3	65
2012	0	5	31	1	37
2013	0	5	16	3	24
2014	0	4	14	1	19
2015	0	5	16	2	23
2016	0	3	20	0	23
2017	0	6	13	2	21
2018	0	8	25	2	35
2019	0	7	14	1	22
2020	0	3	13	2	18
Total	16	793	1350	125	2284
Average	Primary	Secondary	Tertiary	Coverage in more than one sector of the economy	Total
2000-2010	1	66	105	10	182
2011-2012	1	14	35	2	51
2013-2014	0	5	15	2	22
2015-2018	0	6	19	2	26
2019-2020	0	5	14	2	20

Source: OMED, 2021, author's calculations.

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Table 6 shows that since 2010 a significant redistribution of collective arrangements between secondary and primary sectors in favor of the tertiary sector has taken place.

Table 6 Collective agreements at sectoral/occupational level by sector of the economy as % of all collective arrangements, 2000-2020

Average	Primary	Secondary	Tertiary	Coverage in more than one sector of the economy	Total
2000-2010	0.70%	36.30%	57.59%	5.41%	100%
2011-2012	1.96%	26.47%	67.65%	3.92%	100%
2013-2014	0.00%	20.93%	69.77%	9.30%	100%
2015-2018	0.00%	21.57%	72.55%	5.88%	100%
2019-2020	0.00%	25.00%	67.50%	7.50%	100%

Source: OMED, 2021, author's calculations.

The largest decrease of collective arrangements in the secondary sector is mainly fueled by the reduction of collective arrangements in the manufacturing and construction sectors (see Table 7 and 8). In addition, the secondary sector as a whole and especially the construction sector, faced higher rates of unemployment from 2010 onwards (see Table 3), that weakened trade unions and collective bargaining.

It must be noted that the collective arrangements in all sectors of economic activity have decreased.

Moreover, Table 8 depicts that among the collective arrangements concluded during the period of the “disorganized decentralization” of the collective bargaining system, most were concluded in the sectors of “Manufacturing”, “Transportation and storage”, “Accommodation and food service activities”, and “Administrative and support service activities”. The collective arrangements in the last three sectors –that related to the so-called “tourism industries”– represent the biggest part of the collective arrangements concluded in the tertiary sector of the economy.

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
A	1	1	2	1	2	1	1	2	3	0	2	0	2	0	0	0	0	0	0	0	0	16
B	6	2	5	6	6	3	6	3	5	3	3	4	0	0	0	0	0	0	1	0	0	53
C	70	38	73	33	78	42	82	41	84	36	38	17	3	4	2	4	3	4	5	5	2	664
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E	0	1	0	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	1	1	1	15
F	4	3	5	5	5	3	5	4	5	4	0	1	1	0	0	0	0	0	0	0	0	45
G	7	6	9	7	11	8	8	6	10	2	5	3	4	2	1	0	1	1	1	1	0	93
H	7	8	6	10	7	11	7	13	5	7	4	4	3	1	2	3	2	3	6	5	2	117
I	7	7	10	5	12	10	11	5	10	3	10	0	7	1	4	1	6	3	6	5	4	127
J	5	13	11	15	18	11	18	15	21	8	13	4	6	1	1	3	3	0	2	1	3	172
K	2	3	2	1	2	2	2	3	2	3	0	1	0	1	0	0	1	0	1	1	1	28
L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	2	0	2	1	2	4	2	2	3	1	0	1	0	0	0	0	0	0	0	0	0	20
N	3	7	5	14	15	10	12	6	10	4	7	5	2	3	2	4	4	3	5	1	1	123
O	15	22	13	26	27	23	23	25	25	14	11	5	0	0	2	0	1	0	4	1	1	238
P	8	8	7	8	8	8	8	8	10	6	6	3	2	1	0	1	0	0	0	0	0	92
Q	12	15	14	16	12	15	11	6	12	7	4	1	0	2	2	1	1	0	0	0	0	132
R	4	5	3	8	5	14	7	8	6	6	3	6	4	3	1	2	0	2	0	1	1	89
S	4	5	4	4	5	5	4	1	4	1	1	1	0	1	0	0	0	0	0	0	0	40
T	1	0	1	0	2	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	7
U	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	8
Other	17	16	18	14	21	18	19	15	19	10	9	4	2	4	2	4	0	4	4	3	2	205
Total	176	161	193	172	243	186	233	158	245	114	116	65	37	24	19	23	23	21	35	22	18	2284
<i>L. Real estate activities</i>																						
<i>M. Professional, scientific and technical activities</i>																						
<i>N. Administrative and support service activities</i>																						

Source: OMED, 2021, author's calculations.

Note: the classification of the economic activities is based on NACE Rev. 2

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Table 8 Collective arrangements at sectoral/occupational level by sector of economic activity as % of total collective arrangements at sectoral/occupational level, 2010-2020

Sector of the economy	Sector of economic activity	2000-2010	2011-2018	2019-2020
Primary	A	0.70%	0.81%	0.00%
Secondary	B	2.40%	2.02%	0.00%
	C	30.80%	17.00%	17.50%
	D	0.00%	0.00%	0.00%
	E	0.45%	1.62%	5.00%
	F	2.15%	0.81%	0.00%
Tertiary	G	3.96%	5.26%	2.50%
	H	4.46%	9.72%	10.00%
	I	4.51%	11.34%	22.50%
	J	7.41%	8.10%	10.00%
	K	1.10%	1.62%	5.00%
	L	0.00%	0.00%	0.00%
	M	0.95%	0.40%	0.00%
	N	4.66%	11.34%	5.00%
	O	11.22%	4.86%	5.00%
	P	4.26%	2.83%	0.00%
	Q	6.06%	4.45%	0.00%
	R	3.46%	7.29%	5.00%
	S	1.90%	0.81%	0.00%
	T	0.35%	0.00%	0.00%
	U	0.40%	0.00%	0.00%
Coverage in more than one sector of economic activity		8.81%	9.72%	12.50%
Total		100.00%	100.00%	100.00%

Source: OMED, 2021, author's calculations.

7. Discussion

The Greek collective bargaining system was quite centralized until 2010 and ensured high coverage rates by collective agreements. Up until 1990, this was the result of the institutional framework and unions' strength, while after 1990 it was mostly due to the preservation of the institutional framework and much less due to the strength of unions which decreased at a fast pace.

During the economic crisis period, the "internal devaluation" which was enforced through the memoranda led the collective bargaining system to a "disorganized decentralization", that is, a drastic decrease of collective arrangements and a fall in the coverage rate by collective arrangements. A basic goal of Greek governments' policy during the 2010-2018 period was to undermine one of the two pillars that secured high coverage rates by collective arrangements, that is, the institutional framework concerning collective bargaining. At the end of this period and before the pandemic broke out in Greece, governments' policy aimed to make permanent the past reform of the institutional framework concerning collective bargaining, and to undermine the operation and collective action of unions. Given the context which had formed during the period 2010-2019, sectoral/occupational collective arrangements were further weakened in the COVID-19 period.

In June 2021, the neoliberal government of New democracy passed a law (4808/2021) that promotes more employment flexibility, undermines multi-employer bargaining, and aims to restrict trade unions' collective action, which is the crucial variable for the dynamic of collective bargaining and the presence of collective agreements. The undermining of the collective action of unions is the new qualitative element of this new crisis of the collective bargaining system, which will affect at a greater degree unions and collective bargaining at a sectoral/occupational level.

According to Asimakopoulos (2021, p. 29), "the axis around which the government organizes its 'employment paradigm' is the employee as an isolated person, the weakening of organized wage labour and its collective identity, and the redistribution mechanism of income and time" at the expense of wage labour. With the aforesaid law:

- a) The flexible arrangement of working time is adopted (potential to exceed the 8-hour working day for certain periods without any additional remuneration) without the consent of unions (as until now).

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- b) The maximum days of overtime per year is raised while at the same time their compensation is lowered. The working hours of part-time employees can be extended by unilateral decisions of the employers. These measures are a substitute for new hirings, promote the conversion of full-time jobs to part-time ones, and encourage dismissals.
- c) The role of sectoral/occupational unions is undermined as they are excluded from the participation in control procedures concerning labour law violations.
- d) The right to strike is restricted through the stricter preconditions required for the realization of strike (e.g. compulsory electronic voting, increase the number of employees that have to remain as safety personnel during the period of the strike).
- e) The existence and operation of trade unions is undermined through –among other– the limited protection of trade unionists from a dismissal.

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10

FACING THE PANDEMIC, AFTER AN ECONOMIC EPIDEMIC: “GREEK NATIONAL HEALTH SYSTEM VERSUS COVID-19”

Haris Poulakis¹, Thanos Poulakis²

Abstract

Undoubtedly the pandemic of COVID-19, caused by the SARS-COV-2 virus, has put Healthcare Systems, and the study of health policies and economics, at the center of interest. The health crisis, at the same time, highlighted the vital need to protect Public Health. Therefore, the coronavirus pandemic, demonstrated the bad situation in which the Greek National Healthcare System has found itself. Greece in 2009-10, entered one of the most serious and more lasting socio-economic crises in contemporary history. The latest situation, which was intensified by the fiscal adjustment programs issued by the EU-ECB-IMF, caused, among other things, loss of almost 1/4 of the country's GDP, persistent unemployment, disintegration of the productive structure and partial collapse of the welfare state. In this paper, we will make a brief analysis of the “effects” of the economic crisis on the National Healthcare System of Greece. In addition, we will examine how the crisis and austerity policies have affected household health spending, key health indicators and citizens' access to health services. Then we seek to show, how the Greek Health System, as well as all stakeholders, responded to the pandemic especially to the first two pandemic waves.

Keywords: *Greek Economic and Health Crisis, Health Policies, Greek Health Care System, Political Economy of Pandemic*

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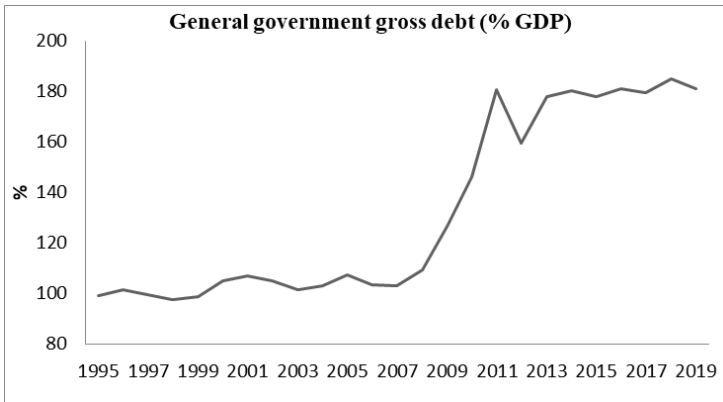
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Introduction

In 2009-10, the Greek economy entered the greatest recession in its contemporary history. This economic crisis took place in the context of the global Great Recession of 2007-9 and was decisively burdened by the structural characteristics of the EU-EMU (Lapavitsas, 2013). In addition, this crisis was exacerbated by a combination of excessive government debt accumulation, budget deficits and current account deficits. The gradual “exclusion” of Greece from the international bond markets also played a decisive role in the outcome of the recession. Also, in the tradition of classical political economy, it has been argued that the crisis in Greece, as well as worldwide, was the result of the downward trend of the average rate of profit (Tsoulfidis & Tsaliki, 2014).

Figure 1



Source: *Authors' elaboration with data from IMF*

In order to deal with the “public debt crisis”, the Greek government in May 2010 signed a loan agreement with the European Union, the International Monetary Fund and the European Central Bank. This agreement was accompanied by a fiscal adjustment program. This was the first of the three “rescue” programs that Greece signed with its lenders. The second program was signed in 2012 and the third in 2015. These programs are often referred to as “Memoranda”. By implementing these programs, the Greek governments eliminated budget deficits. Nevertheless, the cost of this “fiscal consolidation” was unbearable. The immediate

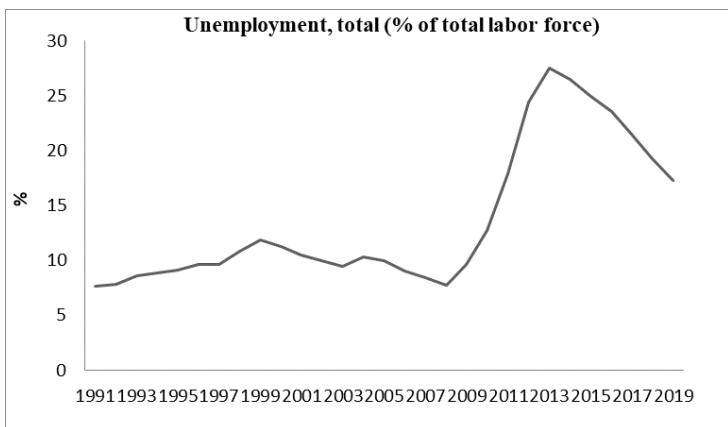
result of the implementation of the adjustment programs, for which even the IMF itself has admitted that they contained serious errors, was the “escalation” of the crisis and the creation of a vicious cycle of recession that, among other things, increased the public debt to GDP ratio (Figure 1).

Figure 2



Source: Authors' elaboration with data from World Bank

Figure 3



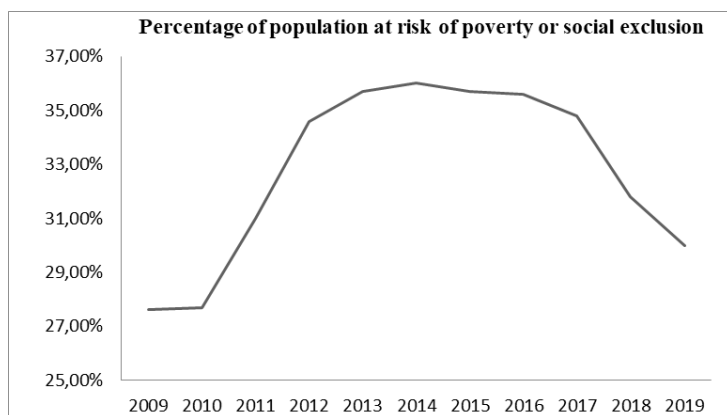
Source: Authors' elaboration with data from ILOSTAT

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During the crisis, the Greek economy lost almost $\frac{1}{4}$ of its GDP (see Figure 2). The recession “disintegrated” the productive base of the country, intensifying the serious structural problems of the Greek economy in the primary and secondary sectors. In addition, it caused explosive unemployment, which in 2013 exceeded 27% and de-escalated³ only after the overall labor costs were over-compressed (Figure 3). Austerity programs have reduced the average disposable income and made it difficult for middle- and lower-income people to make ends meet. As a result, there is an increase in citizens at risk of poverty or social exclusion (Figure 4). At the macroeconomic level, Greece’s economic hardship has not yet been overcome. The growth rates achieved during the period 2017-9 are anemic and cannot make up for the “lost” GDP. The long-term viability of public debt also remains questionable.

Figure 4



Source: Authors' elaboration with data from ELSTAT

Fiscal Austerity and Public Health

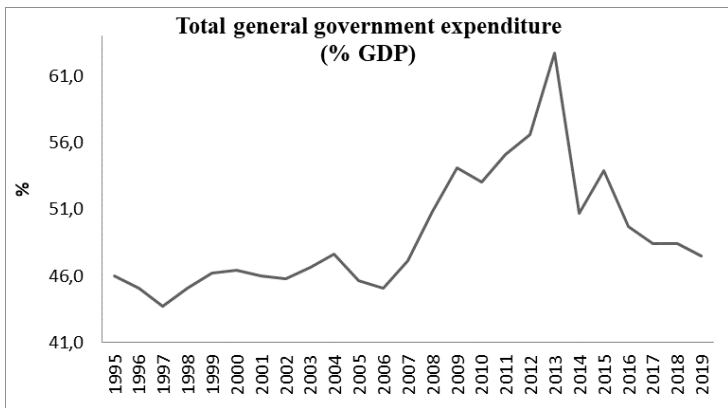
In the context of the “Memoranda”, one of the main goals that Greece had to achieve was the elimination of budget deficits and then the achievement of primary surpluses. First and foremost, the primary surpluses were deemed necessary on the one hand for the Greek state to be able to pay its external debt, on

3 The “fall” in unemployment is also due to the phenomenon of immigration outside Greece.

the other hand in order to reduce the requirements for issuing new debt. At the same time, the long-term primary surpluses are a “guarantee” in the international bond markets that Greece maintains solvency. The Greek Government in 2018 pledged to achieve high and uninterrupted primary surpluses by 2060. Constant austerity became the “new normal” in Greece (Parguez, 2013).⁴ Therefore, the issue of public debt management became the occasion for the complete neoliberal restructuring of Greek society and economy.

Since the implementation of the first Memorandum, in order to eliminate budget deficits, general government expenditure decreased and the overall tax burden, including social security contributions, increased significantly (see Figures 5 & 6). After all, this is a classic “recipe” for austerity (Parguez, 2013). This “recipe” therefore includes the dramatic reductions in government spending on public health. In fact, this sector is suitable for “fast cuts”.

Figure 5



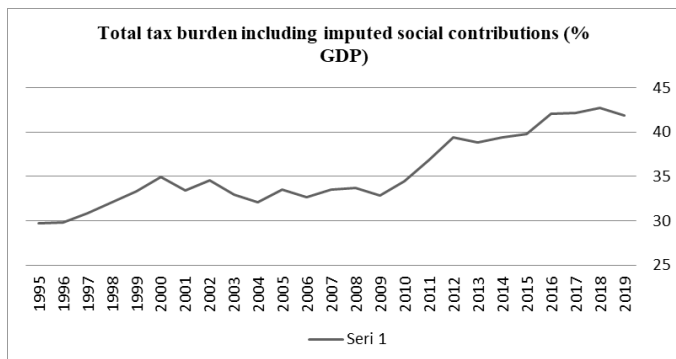
Source: Authors' elaboration with data from Eurostat

4 Through the Stability and Growth Pact austerity is becoming a “regime” throughout the European Union. For more see: Parguez, A. (2016). Economic Theories of Social Order and the Origins of the Euro. *International Journal of Political Economy*, 45(1) 2-16.

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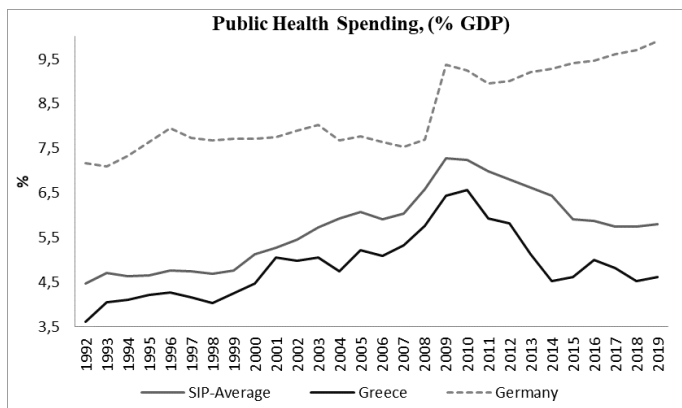
Figure 6



Source: *Authors' elaboration with data from AMECO*

The “Fiscal Adjustment” programs that Greece was called to implement, therefore set the goal of public spending on health not to exceed 6% of GDP. Consequently, the Greek governments reduced health spending by implementing their commitments (Figures 7 & 8). The real value of public spending, however, is higher by about 1% of GDP due to the clawback mechanism. Even so, per capita public health spending in Greece is lower than the EU average.

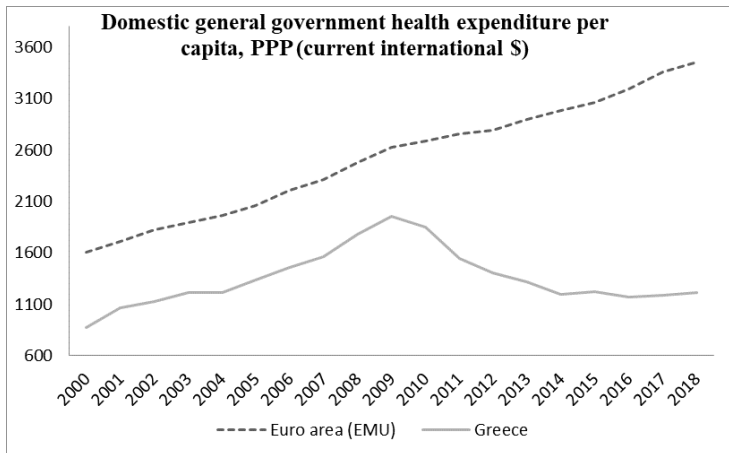
Figure 7



Source: *Authors' elaboration with data from OECD*

As public spending shrank, overall⁵ health spending fell sharply as a percentage of GDP over the past decade (Figure 9). This percentage, after 2013, is consistently lower than the OECD average. During the eurozone crisis, we also see a contraction in public spending on health in countries such as Spain, Ireland and Portugal.⁶ Exactly the opposite course was followed by Germany (Figure 7). So we locate another element of “asymmetric development” between the core and the periphery of the Eurozone.

Figure 8



Source: Authors' elaboration with data from World Bank

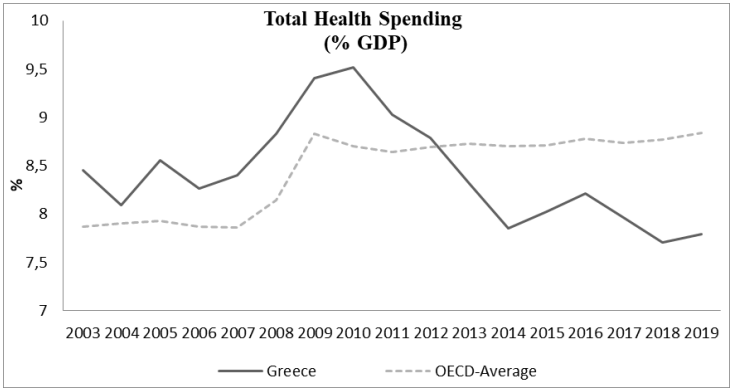
⁵ Public + Private

⁶ SIP: Spain-Ireland-Portugal

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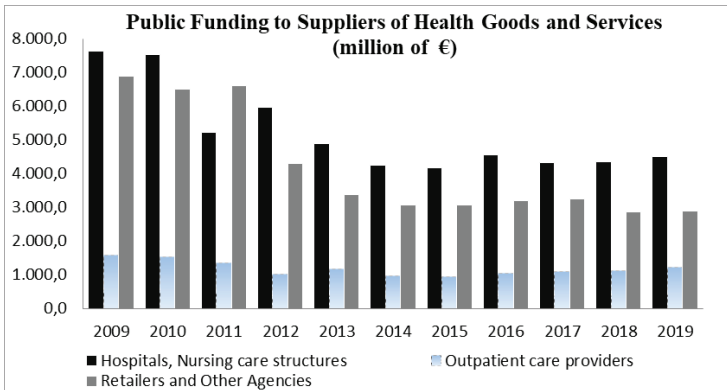
Figure 9



Source: *Authors' elaboration with data from World Bank*

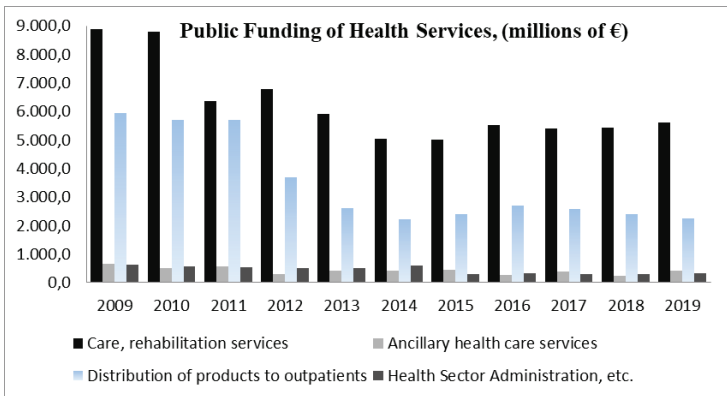
In Greece, a large part of the cuts in public spending on health concerned the funding of hospitals, nursing and outpatient facilities (Figure 10). With regard to publicly funded care services, there have been significant cuts in care and rehabilitation services as well as the provision of outpatient medicines (Figure 11). Public pharmaceutical spending, which was considered excessive, has therefore dropped significantly (OECD/EOHSP, 2019). Yet it should be noted, that the waste in the field of medicines was due to the inefficient allocation of public funds, the lack of control mechanisms in the distribution and prescription of medicines, etc. In order to reduce public pharmaceutical expenditure, among other measures, the participation of policyholders in the price of the medicines was increased.

Figure 10



Source: Authors Elaboration with data from ELSTAT

Figure 11



Source: Authors Elaboration with data from ELSTAT

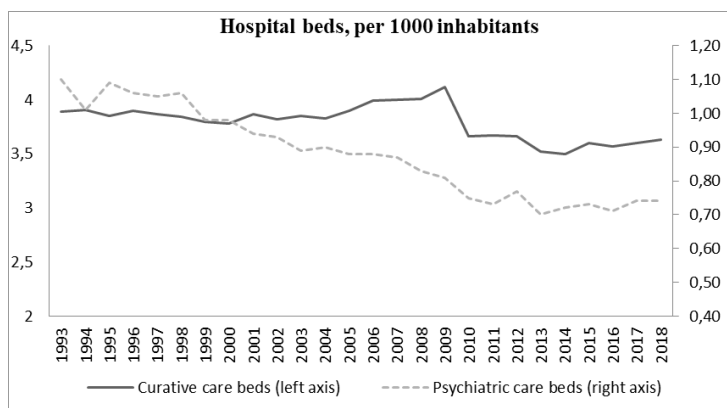
Due to cuts in public funding for health, the number of public hospitals decreased from 142 in 2009 to 125 in 2017 (Siettos *et al.*, 2021). It is a tragic irony that, among the hospitals that closed at the time, there were two that dealt with the treatment of infectious diseases. One of them opened recently in a hurry, as a “response” to the pandemic. In addition, the reduction of doctors from 2010

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to 2013 amounted to 35%. Due to the austerity also, the available nursing beds were significantly reduced (Figure 12). All these large cuts in public health expenditure, in such a short period of time, have resulted in the degradation of the overall capacity of the health system in both quantity and quality.

Figure 12



Source: *Authors Elaboration with data from OECD*

The reforms of the “Memoranda” failed to solve the timeless weaknesses of the GHS⁷. By sampling we mention some: First, it is characterized by particularly high out-of-pocket⁸ expenditures. Second, on the part of the governments, there has been inefficient use and distribution of resources.⁹ Thirdly, within the public NHS, there are significant phenomena of corruption and informal economy that have further burdened household expenditures. Fourth, in the NHS, there are serious shortages in both infrastructure and machinery as well as in human resources, mainly in “general practitioners” and nurses (OECD/EOHSP, 2019). Fifth, both infrastructure and staff are unequally distributed within Greece (Groenewegen *et al.*, 2013). Health services are largely concentrated in large cities, while there are shortages of both qualified staff and facilities in rural areas. All of the

7 The Greek health system (GHS) basically consists of the public National Health System (NHS) and the private health care system.

8 Out-of-pocket expenditures are a direct burden on family budgets with health expenses

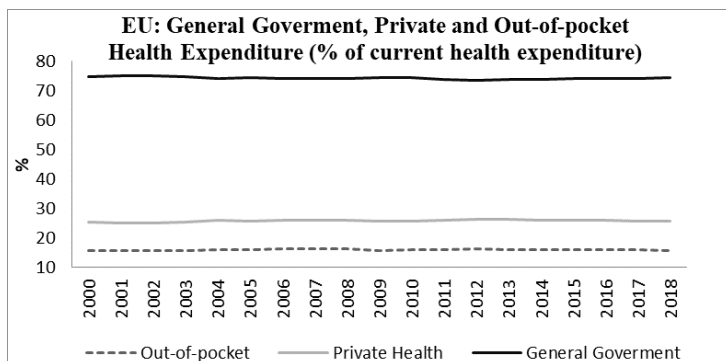
9 Prior to the austerity cuts, given the inefficient use and allocation of resources, public health spending had less of an impact on citizens’ well-being than appears in nominal terms.

above problems continued to exist during the recession resulting in further deterioration of the quality of health services. In addition, we must emphasize that, since the NHS relies heavily on insurance contributions, persistently high unemployment causes problems in its long-term viability.

Households (catastrophic?) Health Expenditures

Greece's health system has a different structure in terms of the ratio of private and public spending compared to most EU systems. (Figures 13 & 14). Apart from the comparatively lower public expenditures on health, what distinguishes the health system in Greece is the notably high out-of-pocket expenditures (Figures 14). After 2011, over 30% of domestic expenditure comes directly from households. This percentage is one of the highest in the EU and is primarily due to high direct private spending on medicines, inpatient and outpatient care (Figure 16). Moreover, during the crisis, the state passed on to households a portion of the health expenditure previously borne by it. In fact, this happened at a time when the average disposable income of households was showing a notable decline. At the same time, the high percentage of out-of-pocket expenditures highlights the inefficiency of the NHS.

Figure 13

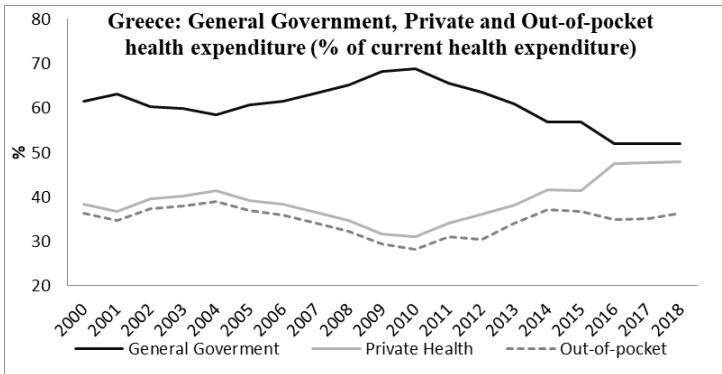


Source: *Authors Elaboration with data from WHO*

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Figure 14

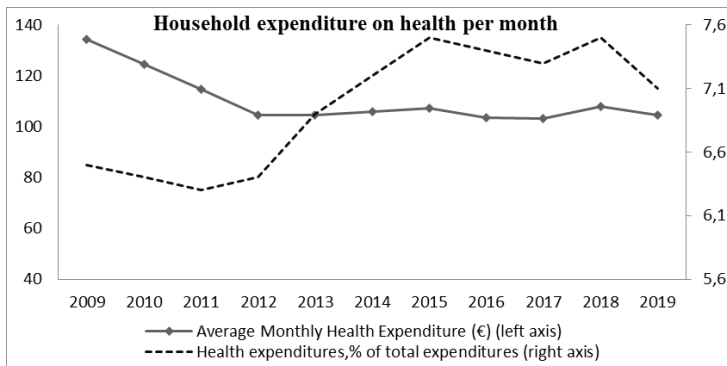


Source: *Authors Elaboration with data from WHO*

The average monthly expenditure per household for health in 2019 is lower than in 2009 (Figure 15). However, health expenditures represent 7.1% of total household expenditures for 2019 when in 2009 it was 6.5% (Figure 15). This highlights the reduced consumption power of households, the inelasticity of demand for health goods and services and the increased participation of patients in health expenditure. During the Greek crisis, due to the implementation of fiscal adjustment programs, household health expenditures shifted significantly in terms of medicines and hospital care (Figure 16). At the same time, households continue to be burdened with informal expenses, which are products of the “grey economy” and corruption, in the context of the NHS operation. In general, 10% of households suffer catastrophic¹⁰ health expenditures, a percentage of the highest in the EU (WHO, 2019).

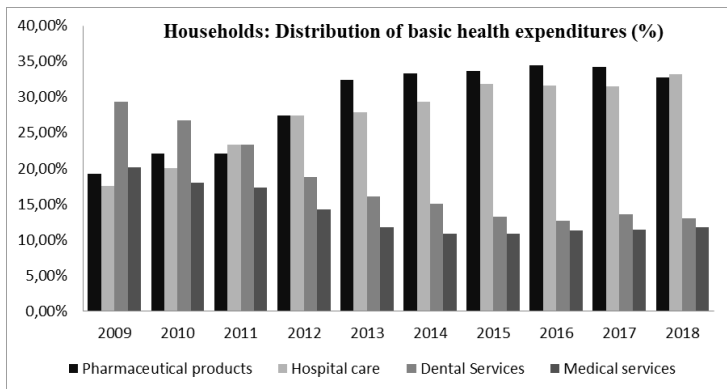
¹⁰ Catastrophic expenditures are defined as direct expenditures of households that exceed 40% of their total expenditures, after deducting expenditures for living needs such as food and housing.

Figure 15



Source: Authors Elaboration with data from ELSTAT

Figure 16



Source: Authors Elaboration with data from ELSTAT

Access to Health Services in the Recession

Historical research has shown that economic crises directly affect public health and citizens' access to health services (Suhrccke *et al.*, 2011). In particular, high unemployment rates and reductions in social protection spending are directly linked to the problems mentioned above. The Greek experience fully confirms

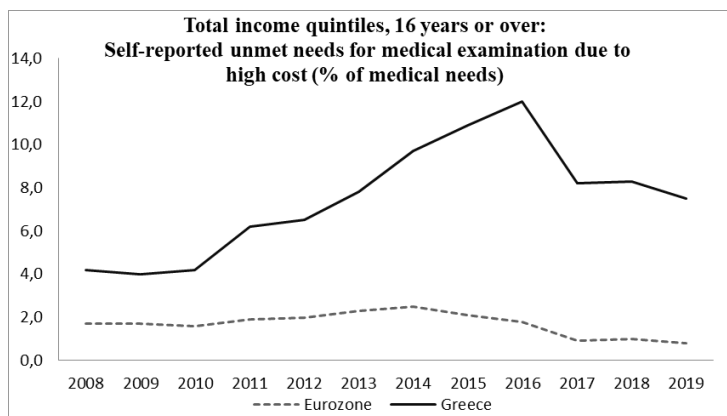
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these findings. The middle and lower income strata of Greek society were particularly affected by the policies of downsizing public health services. The reduction of the disposable income of these strata implied the difficulty of their access to privately provided health services, while the contraction of the NHS meant their “partial exclusion” from critical care structures. For example, the mergers of hospital structures in combination with the phenomenon of underfunding of hospitals, limited both the points of supply and the quality of health services. In addition, the incomplete reform in the field of Primary Health further reduced the options available to citizens (Souliotis *et al.*, 2018).

Important studies have highlighted the increase in the unmet medical needs of Greeks, due to financial difficulties, during the crisis (Kentikelenis *et al.*, 2014; Zavras *et al.*, 2016). The data from Figure 17 confirm these findings. Greece, therefore, has one of the highest levels of self-reported unmet medical care needs in the EU. For example, a survey conducted in 2014 showed that 51% of cancer patients were unable to schedule a medical visit on time and 44% could not cover the cost of a visit to a private doctor (Souliotis *et al.*, 2015). Other studies have shown similar problems for other diseases such as hepatitis C and rheumatoid arthritis (Souliotis *et al.*, 2018). Figure 18 shows the unmet medical needs per income quintile. Thus, among other things, the great socio-economic inequalities within Greek society are highlighted.

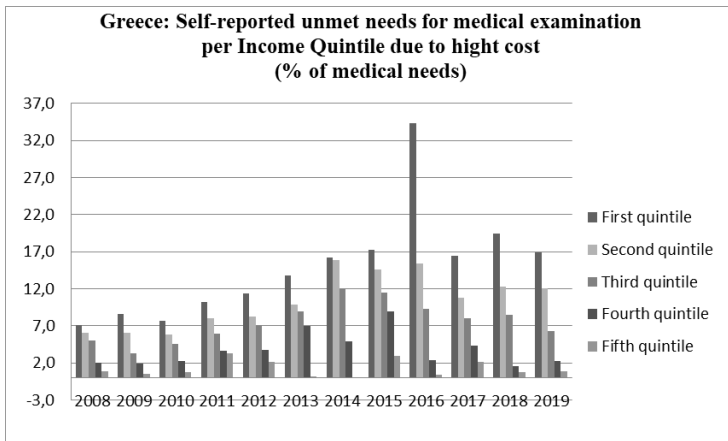
Figure 17



Source: *Authors Elaboration with data from Eurostat*

According to research for the first years of the crisis, vulnerable social groups, such as the unemployed and low-income retirees, unable to privately cover their health costs, have turned to public health structures, especially hospitals (Simou *et al.*, 2014; Economou *et al.*, 2014). Thus, the demand for public health services increased at a time when, these services were deteriorating due to austerity policies.¹¹

Figure 18



Source: *Authors Elaboration with data from Eurostat*

Health indicators in crisis

In Greece, mortality from treatable causes is comparatively higher than in most Western European countries (Table 1). In addition, there is clear evidence that treatable mortality has shown signs of deterioration during the economic crisis (Karanikolos *et al.*, 2018). As a result, the efficiency of the health system has declined due to reduced funding for healthcare services and structures. At the same time, the higher treatable mortality compared to the rest of the countries of Western Europe, including those of Southern Europe, highlights the inferiority of the domestic health system.¹² On the other hand, prevented mortality is lower than

¹¹ A 2014 study, for example, found that patients with chronic conditions and the elderly had greater difficulty accessing health services and treatments, especially when treated in hospitals (Kentikelenis, 2014).

¹² Indicatively, according to the data of the evaluation of health systems of 35 countries by ECHI, Greece in 2018 was only in 29th place.

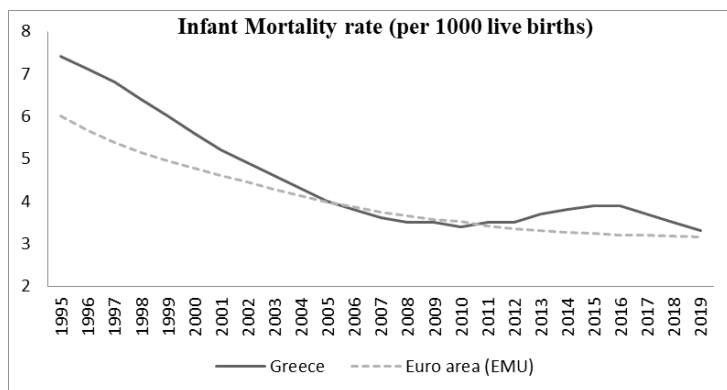
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the EU average (OECD/EOHSP, 2019). Nevertheless, it is a fact that Greece lacks adequate preventive health policies

According to Eurostat data for 2016, premature deaths from cardiovascular diseases¹³, represent 38% of all deaths from treatable causes and 25% from preventable causes. These deaths are due firstly to systemic deficiencies, at the level of management of patients with ischemic heart disease, and secondly at the level of diagnosis and treatment, in patients at high risk of cardiovascular disease (OECD/EOHSP, 2019). Curable cancers also account for 1/4 of deaths from treatable causes. This is probably due to the lack of systematic screening programs for the general population. Infant mortality is another “sensitive” indicator of the quality of health care but also of the general socio-economic conditions. In Greece until 2017, a significant increase in infant mortality is observed and even a reversal of the previous downward trend (Figure 19).

Figure 19



Source: *Authors Elaboration with data from World Bank*

In 2010 in Greece, there was a rapid spread of epidemics such as West Nile virus and H1N1, while in 2011 there was a malaria epidemic (Bonovas & Nikolopoulos, 2012). The main causes of these outbreaks were environmental factors. However, lack of prevention efforts due to cuts, have exacerbated the situation by increasing transmission risks (Kondilis *et al.*, 2013). In addition, during the period

¹³ ischemic heart disease, stroke and hypertension

2010-13, there was a significant increase in HIV infections among intravenous drug users (Paraskevis *et al.*, 2013). This increase is largely due to budget cuts in intervention programs for vulnerable groups. In addition, the recession resulted in the mental health of the Greeks deteriorating significantly.¹⁴

Table 1

Standardized deaths rates for treatable mortality, persons aged less than 75 years per 100.000 inhabitants

Year	Germany		France		Switzerland		D.S.N ¹⁵ -Average	
	Value	% Change	Value	% Change	Value	% Change	Value	% Change
2011	94.48	-	67.64	-	62.46	-	81.57	-
2012	92	-2.6%	66.06	-2.3%	59.66	-4.5%	79.11	-3.0%
2013	91.54	-0.5%	65.08	-1.5%	57.62	-3.4%	75.08	-5.1%
2014	87.42	-4.5%	62.9	-3.3%	56.3	-2.3%	71.81	-4.4%
2015	89.37	2.2%	62.86	-0.1%	55.81	-0.9%	70.99	-1.1%
2016	86.92	-2.7%	62.54	-0.5%	52.7	-5.6%	68.88	-3.0%
2017	85.49	-1.6%	N.A	N.A	51.84	-1.6%	67.10	-2.6%
7 Years % Change	-9.5%	-	-7.5%	-	-17.0%	-	-17.74%	-

Year	Ireland		Greece		Spain		Portugal	
	Value	% Change	Value	% Change	Value	% Change	Value	% Change
2011	93.99	-	94.15		74.24		94.78	-
2012	89.67	-4.6%	96.36	2.3%	72.53	-2.3%	93.05	-1.8%
2013	86.49	-3.5%	91.13	-5.4%	70.49	-2.8%	90.06	-3.2%
2014	83.73	-3.2%	94.51	3.7%	68.46	-2.9%	89.16	-1.0%
2015	83.81	0.1%	96.65	2.3%	68.33	-0.2%	86.9	-2.5%
2016	80.12	-4.4%	94.93	-1.8%	66.84	-2.2%	88.87	2.3%
2017	73.26	-8.6%	94.2	-0.8%	65.5	-2.0%	83.96	-5.5%
7 Years % Change	-22%	-	0.05%	-	-11.8%	-	-11.4%	-

Source: *Authors Elaboration with data from Eurostat*

¹⁴ For example, there was an increase in the prevalence of symptoms of major depression in the general population, from 3.3% in 2008 to 12.3% in 2013 (Economou *et al.*, 2016).

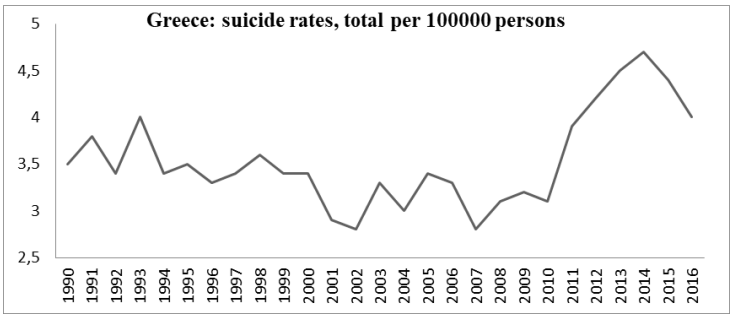
¹⁵ Denmark-Sweden-Norway

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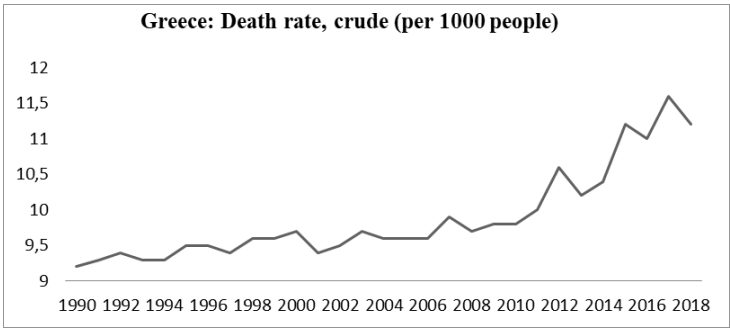
Findings from a study on economic fluctuations in Europe in the period 1979-2007, suggest that there is an increase of 0.79% in suicides and homicides for each percentage point increase in unemployment (Stuckler, 2009). A positive relationship between rising unemployment and suicides has also been observed in Greece (Basta *et al.*, 2018). Thus, it is not unreasonable to argue that the dramatic increase in suicides in Greece after 2010 is due, *inter alia*, to the economic downturn, rising unemployment and declining incomes (Figure 20). The absence of integrated public mental health structures and the provision of psychological support became apparent during the crisis.

Figure 20



Source: *Authors Elaboration with data from WHO*

Figure 21



Source: *Authors Elaboration with data from World Bank*

Summarizing, from all the data presented in this section, it appears that part of the increase in crude mortality rate in Greece after 2010 is due to the conditions created by the crisis (Figure 21).

The main vulnerabilities of the NHS against the Pandemic and some basic remarks for the first two “waves”

Shortly before the pandemic outbreak, the NHS showed structural weaknesses that made it particularly vulnerable to it. First, it had significant shortages in ICUs¹⁶. Throughout Greece, in February 2020 there were only 565 ICU beds¹⁷. Secondly, there were serious shortages of health personnel in general but also in critical specialties for the treatment of the pandemic, such as nurses, intensivists, infectious disease specialists and anesthesiologists. Third, there have been significant deficiencies in the area of hygiene and safety, deficiencies which, if left unchecked, can lead to nosocomial infections. These infections, among other things, limit the available medical and nursing staff. Fourth, Primary Care in Greece is underdeveloped. Primary Care is a critical area for identifying patients in need of hospitalization and thus can “discharge” large hospital units (Siettos et al., 2021). Fifth, there were shortages even in simple hospital beds, the effectiveness of which can save lives on the one hand, and “decompress” ICUs on the other. Sixth, the NHS had limited overall care capacity. As has been well documented, the direct health effects of the pandemic are not only related to increased morbidity and mortality from Covid-19 but also include increased morbidity and mortality due to under-treatment of all other diseases during the pandemic (United Nations, 2020). In all the above problems, we must take into account the absence of an integrated system of epidemiological surveillance, “aggressive tracing” and systematic sampling. Such a system is necessary, among other things, given the rapid spread of SARS-CoV-2 (and) through its asymptomatic and pre-asymptomatic carriers.

Regarding the strengthening of the health system during the first two pandemic waves, we may mention the following: Expenditures of the Ministry of Health from the beginning of 2020 to November of the same year increased by 788 million euros, compared to 2019, *i.e.* by about 20%¹⁸. Almost all of the increase is

16 Intensive Care Units

17 There were therefore about 5.5 ICU beds in Greece per 100000 inhabitants. The EU average was 12 ICUs per 100000 inhabitants.

18 Hellenic Republic, Ministry of Finance: <https://www.minfin.gr/web/guest/-/e-auxese-ton-dapanon-ygeias-opos-apotyponetai-sten-eisegetike-ekthese-tou-proupologismou-2021>

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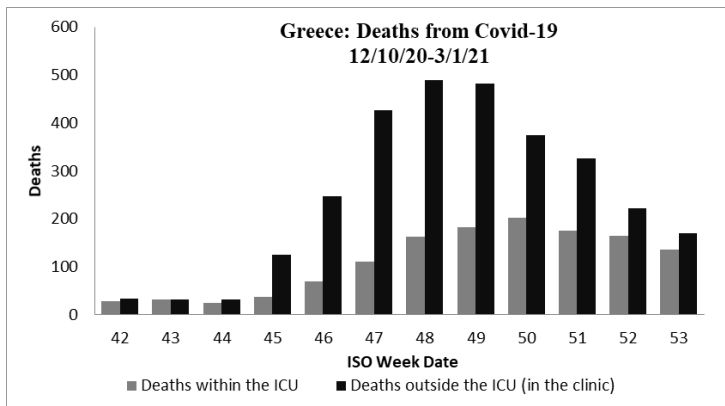
due to pandemic-related costs. In addition, a very significant part of the total funding of the NHS was made through donations from individuals. Between March 2020 and February 2021, the NHS was strengthened with more than 7500 new recruitments, through short-term contracts, medical, nursing, paramedical and other staff¹⁹. However, public hospitals lack at least 6000 physicians and 25000 paramedics (Siettos *et al.*, 2021). Thus, during the outbreak of the second pandemic wave, understaffing of public hospitals was observed. As for the number of ICUs, at the beginning of November 2020 the NHS had at its disposal 1006²⁰ beds. In summary, in our view, the overall strengthening of the NHS was not sufficient to address Covid-19.

During the outbreak of the second²¹ wave of the pandemic, 69.08% of deaths from Covid-19 occurred outside the ICU (Figure 21). This highlights the shortcomings in the NHS in general and in the ICU in particular. It should also be noted that during the outbreak of the second wave, a large part of the NHS served almost exclusively pandemic-related needs. Naturally, this development led to the deterioration of the population's health and made it significantly more difficult for citizens to access key health services. Probably the excess mortality of the second wave period, which is not entirely explained by the deaths due to Covid-19, is due (and) to NHS malfunctions. In addition, we are obliged to mention that the pressure received by the NHS was such that it reached the brink of “collapse”. Many of the problems we identified during the second wave were repeated at the outbreak of the third. Finally, it is very important to mention that all this happened at a time when, from the beginning of November 2020, drastic restrictive measures of social distancing and isolation were in action.

19 COVID-19 health system response monitor: available from: <https://www.covid19healthsystem.org/>

20 825 of them were in public hospitals, 32 in military hospitals and 149 in private clinics

21 During the first wave of the pandemic, which took place mainly in the spring of 2020, the NHS did not receive pressure. Indicatively, the number of intubated patients remained low.

Figure 22

Authors Elaboration with data from iMedD Lab²²

Conclusions

In the last 20 years, humanity has faced frequent epidemic outbreaks such as H1N1, SARS, MERS and Ebola. Scientists and organizations, including the WHO, had repeatedly warned of a possible pandemic. However, almost no state, including Greece, was properly prepared to deal with a health crisis. Thus, arose the need to strengthen health systems, and in particular the public, in order to deal holistically with the pandemic. The NHS, however, did not face fundamental problems just because it did not strengthen satisfactorily during the pandemic. It was ineffective as it faced a constant deterioration from the implementation of the first memorandum onwards. This degradation, therefore, combined with its structural weaknesses, contributed to the lack of adequate health care and psychological support of the general population, which is observed throughout the decade of 2010 and intensifies, in the most violent way, during the Covid-19 pandemic.

²² These data are based on the weekly reports of the National Public Health Organization which are sent to the Ministry of Health for information of the Committee of Experts. For more see the article by Thanasis Tromboulis at iMedD Lab: <https://lab.imedd.org/thanatou-ek-tos-icu-excess-mortality-greece-2020/>

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11

CLIMATE CHANGE AND COVID-19 PANDEMIC: WHAT MEASURES CAN WE TAKE TO REDUCE ENVIRONMENTAL IMPACT?

M. Mustafa Erdoğan¹, Sevdâ Akar²

Abstract

Climate change is the biggest human-made problem for humanity to overcome. It is known that many disease-causing organisms are heavily influenced by environmental factors and there is increasing evidence that climate change might be partly responsible for the Covid-19 pandemic. At least what we know for sure is that the pandemic has led to an extraordinary increase in the production, consumption, and disposal of personal protective equipment (PPE), largely ignoring environmental policies. This situation has created serious waste management issues. This chapter will first identify the causes of climate change and then look for the best public policies to bring solutions to it. After that, the chapter will focus on the environmental impact of the pandemic and try to find answers to its main question: “What measures can we take to reduce negative effects of Covid-19 on the environment?” The study recommends countries review their waste management policies and implement measures to control particularly the pandemic induced waste.

Keywords: Climate Change Mitigation, Covid-19 Pandemic, Environment, Plastic Waste Management, Medical Waste Management

1. Introduction

During the last days of 2019, the virus that causes Covid-19, Sars-CoV-2, appeared in Wuhan, an industrial zone in China. After its appearance, it devastated Europe

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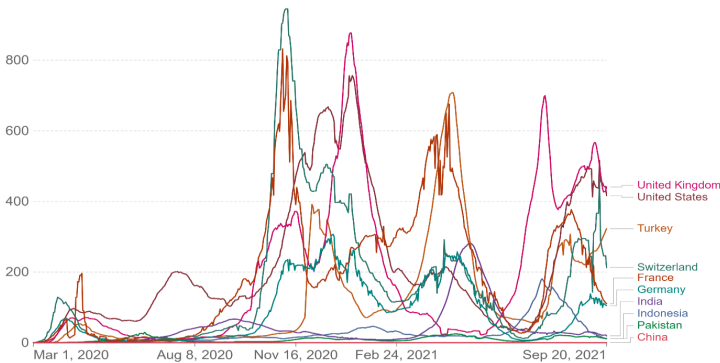
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and the USA in a very short time. The World Health Organization (WHO) declared Covid-19 a pandemic on March 11, 2020. Due to deepening trade relationships and production networks with complex and multi-layered value chains, countries are now strongly connected from one end to the other. Therefore, not only the Sars-CoV-2 virus but also the shock has become contagious.

Following WHO's declaration, governments around the World started implementing emergency measures, such as social distancing, quarantine, curfews, etc. to reduce the transmission rate. As a result of these measures, the world economy has come to a virtual standstill. On the one hand, these measures have slowed the spread of the pandemic, but on the other hand, they have caused many people to lose their jobs and incomes.

Figure 1. Daily New Confirmed Covid-19 Cases Per Million People



Source: *Our World in Data* (2021), [20.09.2021]

As of September 20, 2021, there have been 228.394.572 confirmed cases of Covid-19 all around the world, including 4.690.186 deaths and a total of 5.776.127.976 doses of vaccine have been administered, the WHO reported. Figure 1 shows the daily new confirmed cases of Covid-19 per million people.

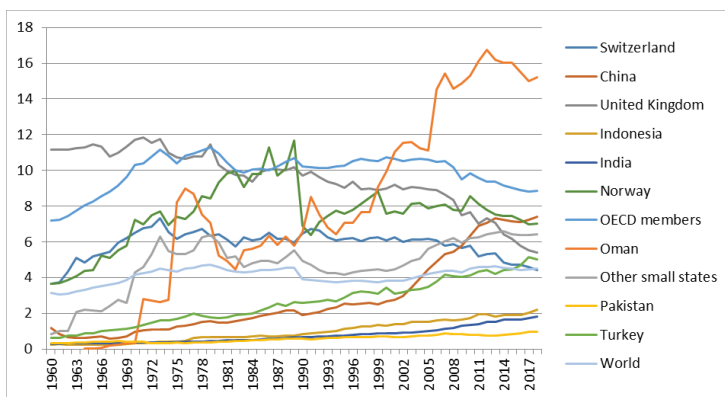
The Covid-19 pandemic has raised serious waste management issues with an extraordinary increase in the production, consumption, and disposal of personal protective equipment (PPE), particularly surgical facemasks, largely ignoring environmental policies. The increasing amount of medical waste during the pandemic does not match the availability of waste management facilities. Likewise, UNEP (2021) reports that developing countries lack access to modern technology to deal with mixed contaminated medical waste due to low investment in basic infrastructure.

The next section looks at the causes of climate change. The following section focuses on the environmental impact of the pandemic. The fourth section looks for answers to the question “What can be done for the increased plastic waste during the pandemic?” The final section provides concluding remarks.

2. Climate Change and Its Causes

Probably the biggest problem for humanity to overcome is climate change, which is mainly driven by the build-up of CO₂ in the atmosphere. The main driver of climate change is the greenhouse effect.³ Greenhouse gases (GHGs), such as carbon dioxide (CO₂), are trapping solar radiation in the Earth's atmosphere, making the climate warmer. Many of GHGs occur naturally and slowly, but human activities excessively increase the concentrations of some of them in the atmosphere. Since the beginning of the industrial era, emissions associated with human activities like burning fossil fuels, logging, and raising livestock to add CO₂ to the atmosphere much faster than natural processes can remove it. As a result, the European Commission (EC) has pointed out the fact that the globe is already one degree warmer on average than it was before the Industrial Revolution (EC, 2021). Figure 2 shows the CO₂ emissions between 1960–2018.

Figure 2. CO₂ Emissions (Metric Tons Per Capita)



Source: *The World Bank* (2021), [20.09.201]

3 Stern and Kaufmann (2014: 267) validate the consensus that human activity is partially responsible for the observed rise in global temperature.

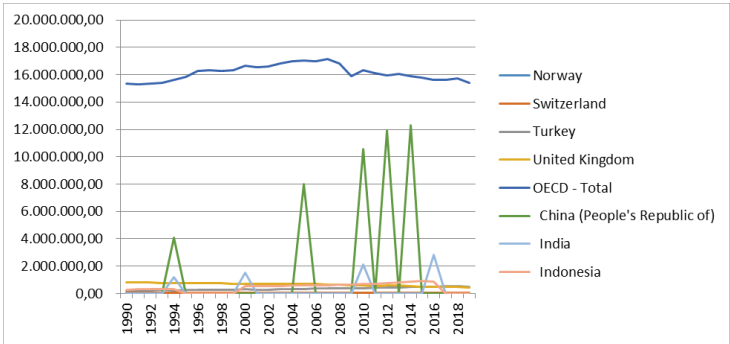
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Carbon dioxide (CO_2) is the major source of GHG emissions from human activities, which is the largest contributor to climate change. By 2020, its concentration in the atmosphere had increased to 48% above pre-industrial levels (before 1750) and is now higher than it has ever been in the last 3.6 million years. Other GHGs are emitted in smaller amounts by human activities. Methane (CH_4) is emitted from the extraction and transportation of coal, natural gas, and petroleum. CH_4 emissions are a result of the decomposition of organic waste in municipal solid waste landfills, as well as livestock and other agricultural activities. It is a greenhouse gas that is more powerful than CO_2 . However, it has a shorter atmospheric lifespan. Nitrous oxide (N_2O) like CO_2 , is a long-lived greenhouse gas that gathers in the atmosphere and remains for over 100 years. It is almost 300 times more powerful than CO_2 (Dunne, 2020). It occurs naturally in the soil and is therefore released from agricultural practices. Another non-natural source is the burning of fossil fuels in internal combustion engines.

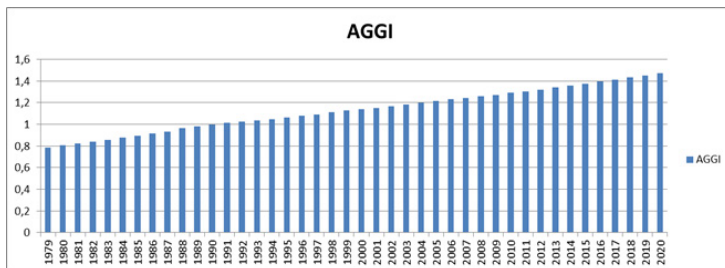
It is estimated that natural causes contributed to total warming by $\pm 0.1^\circ\text{C}$ during 1890 and 2010 (EC, 2021). Figure 3 shows the greenhouse gas emissions between 1960–2019. These countries were selected among those that import the most garbage.

Figure 3. Greenhouse Gas Emissions



Source: OECD (2021), [20.09.201]

Figure 4. Annual Greenhouse Gas Index (AGGI)



Source: NOAA (2021), [20.09.201]

Note: The AGGI is a measure of the climate-warming effects of long-lived trace gases in the atmosphere and how those effects have changed since the onset of the industrial revolution.

Figure 4 shows the Annual Greenhouse Gas Index (AGGI) between 1979 and 2020. According to the National Oceanic and Atmospheric Administration (NOAA) Global Monitoring Laboratory, the GHG index continues to increase with globalization in the world.

The period 2011-2020 was the warmest decade on record, with an average global temperature of 1.1°C above pre-industrial levels in 2019. Man-made global warming is currently increasing at a rate of 0.2°C per decade (IPCC, 2021). The rise of temperature has serious negative effects on human health and wellbeing, including a much greater risk of experiencing dangerous natural disasters. For this reason, the international community has recognized the need to keep warming well below 2°C and not exceed 1.5°C above pre-industrial levels. This is considered an upper bound to prevent the worst effects of climate change. Although the worst-case scenario of the upper band 4.5°C rise in temperature is considered unlikely to occur because of the current level of awareness and technological progress, scientists expect a 3°C rise in temperature by 2100. That is likely to provide a fertile ground for a malaria epidemic (Escarus, 2020).

2.1 Use of Fossil Fuel

Anthropogenic emissions from the use of fossil fuels were estimated as early as 1751. Before 1863, emissions did not exceed 0.1 GtC/year. However, in 1995

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they had reached 6.5 GtC/year, showing an average annual emission growth rate of just over 3% (Wuebbles & Jain, 2001). The Intergovernmental Panel on Climate Change (IPCC) has concluded that fossil fuel emissions are the root cause of climate change. In 2018, 89% of global CO₂ emissions came from industry and fossil fuels (Client Earth, 2020). Given their current dominance, fossil fuels remain the spine of the world's energy system for the near future (Höök & Tang, 2013).

Coal is the dirtiest of all fossil fuels. CO₂ emissions from coal combustion represent 44% of total global emissions (Nunez, 2019). It accounts for more than 0.3°C of the 1°C rise in global mean temperatures, making it the main source of global temperature increase. There have also been some oil spills that have had an overwhelming effect on the ecosystem of our ocean. Natural gas is often advertised as a cleaner energy source than fossil fuels. However, it is still a fossil fuel and is responsible for one-fifth of the world's aggregate carbon emissions (Client Earth, 2020).

2.2 Deforestation

Healthy forests are an essential part of the global climate solution and resilience. They help to reduce the risks of sudden climate change and mitigate the effects of natural disasters (Rainforest Alliance, 2018; Brown, 2019; USAID, 2021). Trees help arrange the climate by absorbing CO₂ from the atmosphere as they grow and storing it in the branches, leaves, trunks, roots, and soil. If they are cut down, this helpful effect is lost and the carbon stored in the trees is released into the atmosphere, which raises the greenhouse effect (EC, 2021). The conversion of forests into arable land and cattle ranches is a major contributor to global deforestation (Brown, 2019). According to FAO (2016), deforestation is the second-leading cause of climate change and together with forest degradation accounts for nearly 20% of all anthropogenic emissions.

Once spread over half the world, forests now cover only a quarter of the land area, and forest loss, especially in the tropics, continues at an alarming rate (WWF, 2021). This lack of trees leads to global warming and climate change. With climate change in mind, tree cutting adds carbon dioxide to the air and decreases the ability to absorb existing CO₂. What most often replaces vanished forest are cattle and crops. They generate huge amounts of GHGs (Rainforest Alliance, 2018).

2.3 Livestock Farming

Livestock farming causes an enormous carbon footprint and has a very high global warming potential. It is responsible for more GHGs than all the world's transport systems combined (Brown, 2019). According to FAO (2016), 14.5% of all anthropogenic GHG emissions come from the supply chains of farm animals. Agriculture and livestock production contributes to global warming via methane and nitrous oxide emissions (Grossi *et al.*, 2019).

Livestock farming is the largest emitter of methane in the world (Brown, 2019). Methane is a gas that affects global warming 28 times more than CO₂. Globally, 50-65% of total CH₄ emissions come from human activities. Some animals like cows and sheep produce methane when they digest their food (EC, 2021). Nitrous oxide is a molecule with a global warming potential 265–298 times higher than CO₂ over 100 years and accounts for around 6% of greenhouse gas emissions (EPA, 2021). Around three-quarters of these N₂O emissions come from agriculture. N₂O emissions are increasing rapidly, mainly due to large-scale agriculture with synthetic fertilizers and livestock ranching.

2.4 Use of Fertilisers Containing Nitrogen

One of the most important nutrients plants need to grow is nitrogen. However, the increasing use of nitrogen fertilizers in agriculture is driving up nitrous oxide emissions. It is estimated that around 60% of nitrous oxide is emitted from fertilized fields and other agricultural sources. This is not only the addition of nitrogen by humans in the form of fertilizers, but its production is also energy-intensive and requires the mining and transport of fossil fuels, ammonia synthesis, and conversion of ammonia into various N₂ fertilizers (Chai *et al.*, 2019). The increasing use of nitrogen-based fertilizers for food production is therefore leading to a climate-damaging increase in greenhouse gas emissions. Moreover, nitrogen fertilizers used in agriculture have been linked to water pollution (Stuart *et al.*, 2014). Worse still, some recent research suggests that nitrous oxide emissions are higher than previously thought, and rising faster than previously thought.

2.5 Use of Fluorinated Gases

Fluorinated GHGs (F-gases), like hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) are human-made

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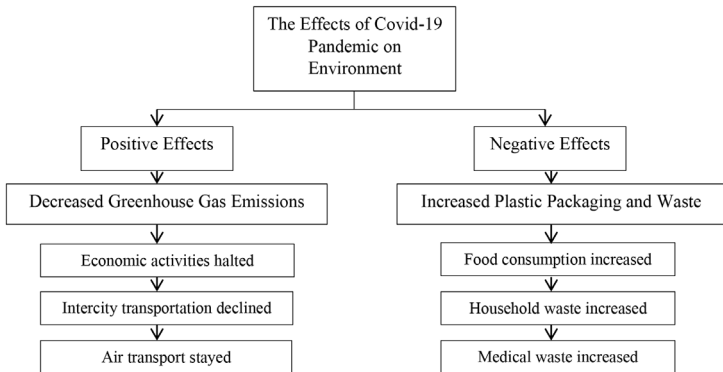
synthetic GHGs that are generated by various industrial processes. F-gases are referred to as “super pollutants” or “super greenhouse gases” due to their strong effect on the climate. F-gases are typically emitted in smaller quantities. However, their global warming potential per unit of mass is hundreds to tens of thousands of times greater than CO₂ (Sovacool *et al.*, 2021; EC, 2021). Troublingly, their use has increased dramatically in recent decades, with serious consequences for global warming (Castro *et al.*, 2021). They are used in everything from refrigerators, air conditioners, fire extinguishing systems to aerosols and solvents.

3. Environmental Impact of Covid-19 Pandemic

There was a rapid decline of economic activity during the lockdown of the Covid-19 pandemic all over the world. Therefore, the initial impact of the pandemic on the environment has been positive. The lockdowns brought by the crisis and the sharp decline in economic activity have reduced CO₂ emissions and pollution in many areas. With forecasting models, Khurshid and Khan (2021: 2948) predicted the effects of the Covid-19 pandemic on energy consumption, climate change, and GDP until 2032. According to the results of their study, energy consumption and quarantine situation are expected to reduce the average temperature by 0.049 and 0.021°C in 2020 and 2021.

The Global Carbon Project has estimated that during the peak of the Covid-19 lockdown, daily CO₂ emissions have decreased by up to 17% globally. The forecast for total annual emission reductions for 2020 is uncertain. However, preliminary forecasts suggest a decline in annual global emissions of between 4.2% and 7.5%. At a global level, emission reductions of this scale would not result in a reduction of atmospheric CO₂ (WMO, 2020: 1). However, the reduction in GHG emissions all around the planet has shown to be the short-run outcome of the fast decrease in economic activity. Air pollution levels in China have returned to their pre-pandemic levels by June 2020 and the World Meteorological Organization reported that atmospheric CO₂ levels were generally higher in 2020 compared to 2019 (U.S. Global Leadership Coalition, 2021). Figure 5 shows the environmental effects of the Covid-19 pandemic.

Figure 5. The Effects of Covid-19 Pandemic on Environment



Source: By authors.

The Covid-19 pandemic seems to exacerbate the long-term struggle to address climate-driven drawbacks, particularly in the middle and low-income countries. 2020 and 2021 have been record years for extreme, frequent, and intense weather events across the globe. Climate-related natural disasters threaten to strangle national healthcare systems when they are already under heavy pressure (U.S. Global Leadership Coalition, 2021).

Sharma *et al.* (2020: 11) highlight the urgent issue of solid waste management about the Covid-19 pandemic. As Excell (2021) indicates, one side of the coin is, in many countries, bans on the use of plastic forks, knives, straws, bags, and other disposable plastic materials have been interrupted by the pandemic. Efforts to reduce the use of plastic, especially in cafeterias and restaurants, have been suspended. Some governments and companies have delayed or eliminated plastic bags and packaging bans. The other side of the coin is hospitals, medical facilities, and ordinary people started to produce more waste than usual, especially the PPE that may become infected with the virus (UNEP, 2021). Since people rely more on food delivery services, the amount of plastic waste is increasing. This means the generation of extra waste and a high carbon footprint (Li, Miroso, & Bremer, 2020).

Changes in daily life are amending the amount and type of waste generated at home and in public places. Many authors⁴ alert us that if we create unrestrained

4 See for instance, Vanapalli *et al.* (2021), Faccioli *et al.* (2021), Prata (2021).

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environmental issues by the unsustainable use of substances this may lead to public health risks in the future. Plastic waste in the freshwater and marine environment can be easily taken up by higher organisms such as fish, which enter the food chain and potentially cause chronic health problems in humans.

3.1 Household Waste Management

The Covid-19 pandemic poses significant challenges to household waste management particularly because the pandemic has shifted the main source of food waste from businesses to households. Waste from the business sector has been significantly reduced due to travel bans and reduced economic activity (Liu, Bunditsakulchai, & Zhuo, 2021). Many people started to prefer stay-at-home rather than going out and online shopping boomed. Due to the fear of contagion people stockpiled masks, gloves, and other protective clothing and equipment and started to use them regularly. Concerns about surface contamination led to consumer acceptance of single-use products (Prata, 2021).

Our hyper-hygienic lifestyle, developed with the fear of infection, has changed our behavioral patterns including the increasing demand for food and groceries packaged in plastic and the use of disposable kitchen appliances (Vanapalli *et al.*, 2021: 1). The shift from eating out to online grocery delivery services has resulted in an increase in plastic bags, hot-and-cold grocery bags, plastic food containers, and food waste.⁵ During the pandemic, online shopping experienced a boom. Upward trajectory of online shopping is not likely to reverse course any time soon. These behaviors are also expected to continue even after the epidemic is under control (Chua, 2021). However, domestic food waste production is expected to decline due to increased deliberate purchase of products that do not deteriorate further during quarantine and concerns about food shortages. However, supply chain disruptions can also increase food waste, such as food remaining on the road due to restricted vehicle movement.

Because of lockdown and social distancing measures, there was a sharp decline in food and hospitality-related services. This would mean less litter on the streets, which is not good for rats. This has changed the behavioral patterns of rats and brought them indoors in some of the countries. There have been, for instance, a report of a 50 percent rise in indoor rat infestation in rural Canada compared to

5 E.g., see a study carried out by Liu, Bunditsakulchai, & Zhuo, (2021).

2019 (SWR Staff, 2020). This situation shows that proper waste disposal techniques are needed to avoid such incidents.

For sustainable municipal waste management, effective policy formulation and implementation must be discussed. That is a big challenge because of many different issues to consider. For instance, Sharma *et al.* (2020: 11) illuminate that mixing biomedical waste containing viruses with normal solid waste streams poses serious health and safety consequences for sanitary workers.

All these show that what is urgently needed is awareness-raising campaigns about household waste management. The active participation and cooperation of citizens need to be looked for. First, citizens' awareness of separate collections can be enhanced and facilitated. In the meantime, capacity building should be prioritized. The best available knowledge about organic waste management and other valuable easily applicable waste management and recycling techniques for households needs to be transferred to the people.⁶ Second, public gardens and parks need to be utilized for organic waste from street markets and restaurants. Last but not least, awareness of teachers needs to be raised and organic waste management is taught at schools.

3.2 Medical Waste Management

The Covid-19 pandemic has created additional challenges for medical waste management particularly in developing countries. As (UNEP, 2021) highlights, “*inadequate and inappropriate handling of healthcare waste may have serious public health consequences and a significant impact on the environment.*” Lack of proper management of waste generated by healthcare facilities and families can intensify the Covid-19 pandemic by secondary waves (WHO, 2020). Therefore, urgent measures must be taken to reduce and avoid harm to human life, health, and the environment (Maalouf & Maalouf, 2021).

At the peak of the pandemic, the city of Wuhan in China produced about 247 tons of medical waste. This amount is about six times higher than before the pandemic. Before the outbreak, the city had an average production of 45 tons and a disposal capacity of approximately 50 tons of medical waste per day (Singh *et*

6 One way to do this is that the relevant knowledge can be made available in electronic format to the general public.

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al., 2020: 1-2). If not managed properly, infected medical waste can be exposed to unmanaged landfills, resulting in public health risks. Also, wastes may reach water sources and increase river and marine pollution.

The challenges related to medical waste management during the pandemic primarily involve the following: (a) increased amount of infectious waste generation; (b) improper medical waste management treatment; (c) increased amount of mixed waste that contains infectious waste when there is no waste segregation at source; (d) inadequate capacity for waste treatment and removal; (e) open burning and illegal dumping of infectious waste; (f) adverse effects from potential exposures to informal workers in contact with infectious and mixed waste; (g) suspension of recycling activities.

In both the short and the long run, performing effective healthcare waste management programs, require multi-sector collaboration at all levels. In this context, the establishment of a national policy and legal framework, training personnel, and raising public awareness are the most fundamental elements of a successful medical waste management system. To encourage participation of citizens in the implementation of policies and programs, it has great importance to raise public awareness (UNEP 2021). Standardization, procedures, guidelines and rigorous implementation of medical waste management should be meticulously considered to reduce the risk of the pandemic spreading to the public areas (Sangkham, 2020).

Rahman *et al.* (2021) point out that inadequate knowledge, poor attitude and inefficient application of waste management are some of the problems that hinder proper medical waste management. They suggest that particularly in developing countries it is necessary to organize sufficient training regarding biomedical waste management, to enhance the knowledge of the healthcare staff. Maalouf and Maalouf (2021) emphasize the importance of more comprehensive medical waste prevention and reduction, as well as, separation of infectious and toxic sub-fractions at the source. This is because improper separation can increase the amount of infectious medical waste and this would cause disposal costs to rise. Therefore, medical institutions need to further develop their waste management monitoring systems.

Aragaw (2020: 1) suggests that the pollution created by the surgical face masks that entered our lives with Covid-19 in the ecosystem has not been fully understood. The face masks are composed of polymeric materials as a potential source

of microplastic contamination. The literature mostly states that microplastic pollution is a major problem due to its enormous effects on aquatic biota and the whole environment. It is shown that face masks are easily swallowed by fish and microorganisms in aquatic life, which affects the food chain and ultimately chronic health problems in humans.

4. What Measures Can We Take To Reduce Environmental Impact of Covid-19 Pandemic?

Climate change threatens the basic elements of life on earth. It is expected to have a huge impact on both humankind and other beings within the current and next few generations if everything goes business as usual. According to the latest IPCC (2021) report, an average rise of 1.5°C can endanger 20-30% of species. Most ecosystems struggle when the earth warms above 2°C. Limiting global warming to nearly 1.5°C or even 2°C will be unattainable unless there is an immediate, rapid, and large-scale reduction in GHG gas emissions. The environmental impact varies according to which source and with which technology the energy is produced and how it is used. The main reason for climate change is the extensive use of fossil fuels. Therefore, energy policies for a sustainable future should be based on greater use of renewable energy and high levels of energy efficiency.

To keep warming below 1.5°C, we need to move from fossil fuels to 100% renewable energy and reduce our carbon footprint to zero by 2050. In this respect, what needs to be done today is to implement sustainable policies that will protect the natural environment and the ecological system that has been destroyed by human beings for short-sighted economic purposes since the industrial revolution in the UK. The first thing to do today is to carry out production and consumption in an environmentally friendly manner. The market mechanism can be good for individual benefit. However, it is not a good mechanism for collective benefit issues like the environment. The main reason is that polluters cannot fully bear the consequences of their actions through the market mechanisms. Therefore, the state should determine a long-term energy strategy to reduce fossil fuel use and increase renewable energy production (Karaca & Erdoğan, 2021).

Mitigating climate change will require significant public investment, especially in renewable energies, sustainable food systems, and clean transport. The current Covid-19 crisis can be seen as a catalyst for a long-overdue structural change from

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unsustainable dirty industries to much-needed clean and sustainable industries. Economies in the new post-contagion context had better use industrial policy to promote green jobs, the production of renewable energies, and the application of energy efficiency measures (Popov & Jomo). Renewable energies, which are critical for sustainable development, often show the “infant industry” characteristics. Therefore, many countries today protect and support their green industries. For example, Denmark, which is one of the leading countries in the wind energy industry, implemented industrial policy to reach its current state (Erdoğan & Karaca, 2016). Green industrial policies that will ensure sustainable development can be counted as follows:

- Using environmentally friendly technologies that reduce energy needs and minimize carbon emissions,
- Expanding renewable energy production and consumption,
- Developing policies for disseminating green building practices and reducing production costs,
- Focusing on electricity generation from garbage and wastewater.

Reforestation is another very important measure since it sucks up excess carbon from the atmosphere to help to cool the climate. The reason for this is that as trees grow they absorb CO₂, which we urgently need to avoid getting into the atmosphere. About a third of the CO₂ released when fossil fuels are burned is absorbed by forests each year. Therefore, forest restoration is an important way to reduce GHG and slow down temperature increase in the short term by drawing down carbon dioxide from the atmosphere (Dean, 2019).

World Wide Fund for Nature (WWF, 2021) highlights that reducing deforestation and degradation is an extremely cost-effective way to reduce GHGs, which can be done immediately if the drivers of deforestation are strategically addressed. When done right, it can also protect biodiversity and benefit people. Likewise, WHO (2021) confirms that the value of the health gains from climate action is twice the cost of global mitigation policies. According to U.S. Global Leadership Coalition (2021), climate-resilient sustainable growth could bring net economic benefits of \$ 26 trillion by 2030. Furthermore, as revealed by Olivero *et al.*, (2017), preventing forest loss could reduce the likelihood of future outbreaks.

Since livestock farming causes a huge carbon footprint, it is very important to reduce it. Greenhouse gas emissions from the livestock sector can be reduced by up to 30% via the widespread use of existing best-of-breed applications and technologies (FAO, 2016). Optimizing animal productivity has a strong mitigating effect in both industrialized and developing countries (Grossi *et al.*, 2019). Also, excessive use of nitrogen-based fertilizers and “super pollutant” human-made synthetic GHGs (F-gases) have a very damaging effect on the climate and their use have to be reduced as rapidly as possible.

Single-use plastics for PPE have risen considerably during Covid-19 pandemic. Moreover, some governments and businesses have delayed or revoked plastic and packaging bans. While the increased use of plastic is necessary to combat the pandemic, especially PPE, countries must ensure that these emergency changes do not undo long-term progress in passing plastic pollution reduction laws (Excell, 2021). Governments need to regulate the entire life cycle of plastics, from design to manufacture, use and disposal. Requiring minimum percentages of recycled material is a crucial step since it creates a market for recycled plastic (Prata, 2021). Future research should aim to improve biodegradable and environmentally friendly protective equipment to speed up the agenda for achieving sustainable production and consumption while reducing environmental costs (Sarkodie & Owusu, 2021: 7959).

5. Concluding Remarks

Climate change has a huge impact on earth and threatens life on it. Climate change is mainly associated with human activities such as burning fossil fuels, cutting trees, and raising livestock. Energy policy for a sustainable future will definitely be based on greater use of renewable energy and high levels of energy efficiency. To keep warming below 1.5°C, we need to move from fossil fuels to 100% renewable energy and reduce our carbon footprint to zero by 2050. Protecting natural ecosystems and restoring forests is important to reduce GHG emissions and slow down the temperature rise. Mitigating climate change will require significant public investment, especially in renewable energies, sustainable food systems, and clean transport. Therefore, the state should determine a long-term energy strategy to reduce fossil fuel use and increase renewable energy production. A focus on renewable energy resources and green growth policies can help prevent

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environmental degradation, unsustainable use of natural resources, biodiversity loss, and preserve fossil fuel resources for future generations.

The initial impact of the measures taken against the Covid-19 pandemic resulted in a sharp decline in economic activities with significantly reduced greenhouse gas emissions. This positive effect on the environment, however, was short-lived. Because the Covid-19 vaccination effort allowed the economy to resume. The current Covid-19 crisis can be seen as a catalyst for a long-overdue structural change from unsustainable dirty industries to much-needed clean and sustainable industries. Economies in the new post-contagion context need to use industrial policy to promote green jobs, the production of renewable energies, and the application of energy efficiency measures.

Our hyper-hygienic lifestyle, developed with the fear of infection during the Covid-19 pandemic, posed a big challenge both for household and medical waste management. The pandemic has dramatically increased the production and consumption of often single-use personal and medical devices exposing the world to multiple environmental threats from plastic pollution. A huge amount of medical waste overwhelmed the waste collection systems. While increased use of plastics is required to combat the pandemic, countries must ensure that these emergency changes do not reverse long-term advances in legislation to reduce plastic pollution. Legislative reform is very important in this regard.

Household waste requires proper disposal techniques. Reducing plastic pollution and promoting sustainable plastic waste management techniques can be achieved by prioritizing policies to transform social, institutional, and individual behavior. Improper disposal of waste generated in healthcare facilities and households can worsen the spread of Covid-19, as it increases the risk of secondary infections. Pervasive landfills, open-air burning, and incineration could have implications for health since they affect air and water quality due to toxin exposure. Therefore, economies should control Covid-19 related waste by optimizing the use of the waste management solutions, while at the same time, trying to prevent any probable long-run impacts on the environment.

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NANOTECHNOLOGY AND COVID: TECHNICAL SOLUTIONS IN THE HUNT FOR INEQUALITY

Edgar Záyago Lau, Sein León Silva, and Roberto Soto Vázquez

Abstract

This chapter argues that in the face of the worst economic and health crisis caused by Covid-19, the world's nations have opted for technical solutions to solve the pandemic problem. In doing so, they have subordinated anti-Covid technological development to the laws of capitalist accumulation. Consequently, control of the vaccine production chain has remained in transnational companies located in the most developed countries. We use various analysis methods to advance our argument, including collecting scientific publications, patents, vaccine production, and application. The real success is at the hand of the winners of this pandemic: big pharma.

Keywords: Nanotechnology, pharma, Covid

Introduction

This chapter advances an analysis based on quantitative techniques to show the inequality in the chain production of nano enabled vaccines to treat Covid-19. This inequity is illustrated in the technical and social benefits that developed countries ensure to the detriment of developing countries. Practically, scientific publications, patents, vaccines, and the profits derived from their sales are monopolized among pharmaceutical transnationals. The principle of justice and well-being is subsumed by the interest of profit, even in the most severe health crisis of the last 100 years. The first section explores the contrasting positions on technological progress and its role in solving social problems. In the next section, we explain the potential of nanotechnology-based Covid-19 vaccines. Later we illustrate the different stages of development of these vaccines and the leading role

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of transnational companies. After that, we highlight some points for reflection in the conclusions section.

1. Technology as a solution for social problems

Beginning in the last century, the accelerated social division of labor made possible the establishment of an “*epistemological hegemony*” in academia, subordinated to the advance of capitalism, in which reality is interpreted or explained without analyzing the historical powers and interests maintaining the *status quo*.

On the one hand, we have the analytical assessment of reality based on the segmentation and overestimation of the rationality of individual agents. In this framework, the partial analysis of social reality is advanced by undervaluing the economic trends and social struggles that determine history. From the imposition of this cognitive matrix, the order and perspective of time and space are reduced to solving specific problems derived from specific areas or disciplines: business administration, industrial engineering, financial economics, marketing, human resources, international business, etc. In aggregate, it is argued that individual competitiveness is a *sine qua non*-condition to join this hyper-specialized, globalized, interconnected world. Consequently, higher education systems become training spaces for highly trained “technicians” to join the capital appreciation process and serve the dominant groups. These pictures are little or not relevant to become agents of transformation or social emancipation.

In contrast, we have the objective analysis of historical and social development that focuses on studying the economic and political contradictions of the productive systems at a given moment (Marx, 1867). Today, the case takes us to understand that capitalism imposes technical relations (technological development) from the dominant social relations of production (Rubin, 2019). In this context, the ongoing competition inherent in the market economy and the insatiable search for the profit of the producing entities makes technology development an essential aspect of the economic system at all levels. Technology becomes a tool that incubates competitive advantages and allows conquering markets, regardless of whether this logic brings contradictions in the system. In the end, what determines how, when, and why a new machine is introduced into a productive system are the laws of accumulation (Marx, 1867), and not the disposition or the goodwill of the owner of the technology.

Orthodox intellectuals, who defend the subjective conception, unfold concepts that refer to the role of technology in the development process from a natural or evolutionary order (Freeman, 1987; Pérez, 2003). An important setback in these analyzes is that they equate technical relations (technological development) with social relations (between people), and never assume the importance of such a distinction to study the impact of technologies on the labor process (Katz, 1996). Likewise, subjective analysis, even with incorporating the historical axis from the evolutionary or neo-Schumpeterian paradigm, does not focus the research on the social implications of capitalist technological development: employment/unemployment relations, consequences of patents and monopolies, subordination of technological trajectories, heterogeneity, socioeconomic between nations and sectors, and many other issues.

Many scientific and technological areas fall prey to this thinking, and nanotechnology-based vaccines for Covid-19 are no exception. This chapter shows that the solution should not rely exclusively upon the technical. The answer depends on modifying the socio-economic structures that assign technological benefits *vis-à-vis* the advance of profits.

2. Nanotechnology and nanomedicine

Nanotechnology is an interdisciplinary field of science that includes the design of components, materials, devices, and systems at the nanoscale (1-100 nm) (Patel, Patel, & Bhatia, 2021). On this scale, materials present novel properties not observed on larger scales. This novel feature has allowed nanotechnology to be applied in a wide array of sectors such as agriculture, environment, energy, aerospace, chemicals, materials science, and medicine (Nasrollahzadeh *et al.*, 2019). The application of nanotechnology in medicine is called nanomedicine. This new discipline encompasses the use of nanomaterials to diagnose, monitor, prevent and treat diseases at the molecular level (Abdel-Mageed, AbuelEzz, Radwan, & Mohamed, 2021). The main areas of application of nanomedicine are i) drug delivery, ii) drugs and therapy, iii) in vivo imaging, iv) medical biosensors, and v) biomaterials (Wagner, Hüsing, & Bock, 2008).

In drug delivery, nanomedicine has contributed to the development of nanostructures that transport drug molecules to specific parts of the human body. Some nanostructures are widely used for this purpose, such as polymeric

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nanoparticles, superparamagnetic nanoparticles, quantum dots, dendrimers, and lipid solid nanoparticles (Chamundeeswari, Jeslin, & Verma, 2019). Due to their size, these nanostructures can more easily cross biological and physiological barriers, which improves drug delivery efficiency. Likewise, by manipulating their surface properties, nano carriers can be explicitly targeted to diseased organs and tissues, which reduces the side effects caused by the spread of drugs in healthy organs and tissues. The latter is relevant in developing new cancer treatments since conventional chemotherapies lack selectivity towards cancer cells and cause adverse side effects that decrease patients' quality of life (Chidambaram, Manavalan, & Kathiresan, 2011).

In drugs and therapy, the use of nanomaterials has made it possible to improve or develop new treatments. For example, nanoparticles have become helpful in magnetic hyperthermia therapy (Lemine, 2019) and photodynamic therapy (Kim, Jo, & Na, 2020) to fight tumors. Nanomedicine has also made contributions in two critical areas of diagnostics: in vivo imaging and medical biosensors. In vivo imaging is a diagnostic tool that consists of obtaining images of the human body's interior through magnetic resonance imaging, computed tomography, and positron emission tomography techniques. The use of nanoparticles as contrast agents significantly improves the images obtained with these techniques to detect cancerous tumors early (Kalra *et al.*, 2021). Some nanoparticles that have been used as contrast agents are iron oxide nanoparticles, gold nanoparticles, and quantum dots (Thirugnanasambandan, 2021).

Regarding medical biosensors, these devices take part in the diagnosis for the analysis of in vitro samples. Incorporating nanostructured components in the biosensors has increased the performance and sensitivity of these devices, allowing fast and accurate diagnoses with microscopic models (Huang, Zhu, & Kianfar, 2021). Nanostructured biosensors have been built to detect glucose, cholesterol, *Escherichia coli*, influenza virus, human papillomavirus, dopamine, and glutamic acid (Kumar, Ahlawat, Kumar, & Dilbaghi, 2015).

Attention has focused on developing highly biocompatible nanomaterials with bactericidal and antiviral properties to make them suitable for medical applications. Two outstanding examples of this type of material are nanostructured hydroxyapatite and silver nanoparticles. Due to its high biocompatibility, Nanostructured hydroxyapatite has been used to manufacture implants (Roy,

Bandyopadhyay, & Bose, 2011) and tissue engineering (Zhou & Lee, 2011). Silver nanoparticles have bactericidal properties and have been used to manufacture medical instruments, wound dressings, and bone cement to fix orthopedic implants (Davidovits, 2019).

We overviewed the scientific publications on nanomedicine that have been published in the period 2000-2020. The search for publications was carried out in the Web of Science using a methodology applied in previous works on nanomedicine (Invernizzi *et al.*, 2015; Wagner *et al.*, 2008). This research showed that in the last two decades, 181,437 articles on nanomedicine had been published worldwide. Figure 1 shows the number of publications per year. The number of publications has increased steadily throughout the period, which indicates that nanomedicine is a growing sector. Chong and Hong (2020) reported that international patent applications on nanomedicine had increased significantly since 2000. When it comes to the nanomedicine market, it has expanded and will continue to do so. In 2009, the global nanomedicine market size was approximately \$ 53 billion. In 2017 it was \$ 134.4 billion and was projected to reach 293.1 billion dollars by the end of 2021 (Gadekar *et al.*, 2021).

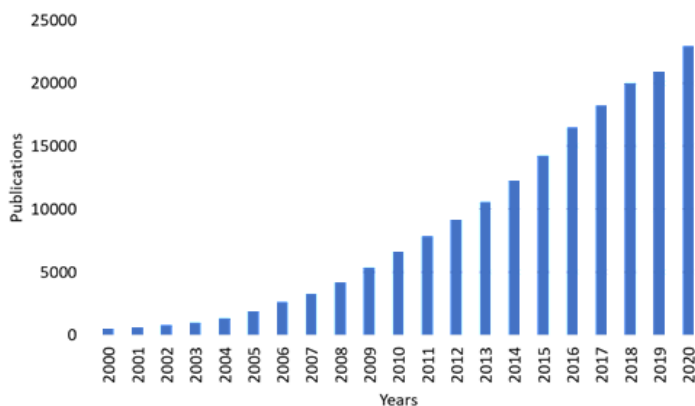


Figure 1. Scientific production on nanomedicine worldwide. Publications per year

Source: Own elaboration with information from Web of Science (consultation date: August 10, 2021).

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Figure 2-A shows the ten countries with the highest number of publications. China, the United States, and India lead scientific production on nanomedicine. These countries have national nanotechnology initiatives to direct and finance research and development activities (Bhattacharya, Shilpa, & Bhati, 2012; Merzbacher, 2020). Figure 2-B shows the distribution of publications by area. It is observed that the areas with the highest number of publications are drug administration (59% of the total), in vivo imaging (15%), and medical biosensors (11%).

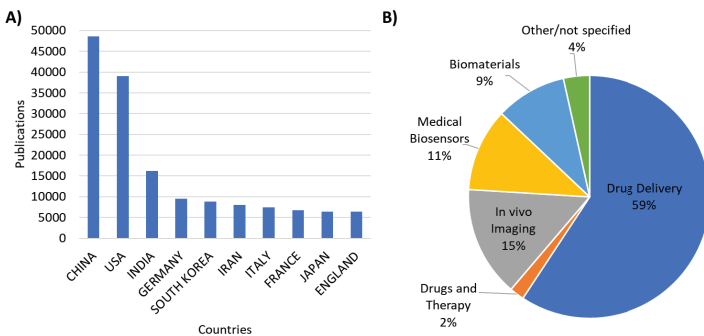


Figure 2. A) Countries with the greatest scientific production on nanomedicine. B) Distribution by areas of the world production of nanomedicine.

Source: Own elaboration with information from Web of Science (consultation date: August 10, 2021).

In the current context of the COVID-19 pandemic, nanomedicine has made contributions to combat this disease. In our bibliometric analysis, we also explored the publications on nanomedicine focused on COVID-19. To do this, we incorporated into the search strategy keywords about COVID-19 and SARS-CoV-2 that have been used in previous work (Hossain, 2020). We tracked the articles that have been published from 2019 (the year the disease appeared) to the present (August 2021) and found a total of 438. Figure 2-A shows the ten countries with the highest number of publications. China, the United States, and India lead scientific production on nanomedicine. These countries have national nanotechnology initiatives to direct and finance research and development activities (Bhattacharya, Shilpa, & Bhati, 2012; Merzbacher, 2020). Figure 2-B shows the distribution of publications by area. The areas with the highest number of publications

A word cloud visualization of research trends in nanomedicine from 2016 to 2020. The words are arranged in a circular pattern, with sizes corresponding to their frequency. The most prominent words include 'nanomaterials', 'biosensors', 'drug delivery', 'diagnostics', 'liposomes', 'pandemic', 'cancer', 'microfluidics', 'silver nanoparticles', 'point-of-care', 'treatment', 'viral infection', 'molecular docking', 'electrochemical biosensors', 'autonomous delivery', 'monoclonal antibodies', 'cytokine storm syndrome', 'surface plasmon resonance', 'nanoparticles', 'diagnosis', 'nano-vaccines', 'immunization', 'antibody', 'immunoassay', 'biosensor', 'exosomes', 'anti-viral', 'antiviral activity', 'antimicrobial spike protein', 'gold nanoparticles', 'drug repurposing', 'quantum dots', 'nanodiamond', 'fluorescence', 'theranostic', 'remdesivir', 'chitosan', 'nanofabrication', 'therapeutics', 'cell engineering', 'clinical translation', 'cancer immunotherapy', 'phages', 'therapeutic', 'plasma', 'rapid detection', 'artificial intelligence', 'lab-on-a-chip', 'infectious disease', 'recognition T1-PCR', 'nanotherapeutics', 'anti-inflammatory', 'virus detection', 'immunotherapy', 'mrna vaccines', 'optical biosensors', 'drug delivery systems', 'drug delivery system', 'photonics', 'photodynamic therapy', 'viral infections', 'radioisotope', 'extracellular vesicles', 'point-of-care diagnostics', 'bio-magnetic', 'magnetic nanoparticles'.

3. Nano-based vaccines and inequality

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2017). In the vaccines sector, nanotechnology has influenced principally in three different purposes:

- 1) Increase of immunogenicity as an auxiliary stimulant to generate an immune response.
- 2) Increase the stability of antigens, protecting them from premature degradation caused by proteolytic enzymes.
- 3) Targeted delivery systems to facilitate antigen uptake (Talebian & Conde, 2020).

Usually, vaccines work by inserting a sample of the virus into the immune system, but without causing the disease. This can be achieved by including critical components of the virus such as the envelope, spike, or membrane protein. Then, the immune system identifies the atypical protein and attacks the virus, creating antibodies to protect the subject against the actual virus if it shows up (Centers for Disease Control and Prevention (a); National Audit Office, 2021). For Covid-19 vaccines, it is a similar case, though, since to date, there are three different formulations (National Institute of Allergy and Infectious Diseases; World Health Organization; U.S. Dept. of Health and Human Services, 2021):

Protein subunit: This type of Covid-19 vaccines includes parts of the virus (S proteins) that stimulates the immune system. Once the immune system recognizes S proteins, it creates antibodies and white blood cells to fight the virus. Novavax works as a protein subunit COVID-19 vaccine (Centers for Disease Control and Prevention (b), 2021).

Vector vaccine: It contains inside a modified virus envelope, material from the virus COVID-19 (viral vector). Once the viral vector is in our cells, the genetic material instructs the cells to make copies of the protein S, in response the immune system creates defense antibodies and white blood cells that are unique to attack COVID-19. Viral vector vaccines cannot make you infected with COVID-19 virus or the viral vector virus. Johnson & Johnson's Janssen, AstraZeneca and the University of Oxford are vector vaccines against COVID-19 (Centers for Disease Control and Prevention (b), 2021).

Messenger RNA (mRNA) vaccines: This novel method uses genetically modified mRNA, which instructs our cells to create protein S. Once our immune system cells copy the protein S, they destroy the genetic material in the vaccine. It recognizes that this protein should not be present creating T lymphocytes and B

lymphocytes that will attack if the actual Covid-19 virus appears. Pfizer-BioNTech and Moderna COVID-19 vaccines use mRNA method. (National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases, 2021). The mRNA encapsulation technique is a novel method that possesses high effectiveness. Nevertheless, the instability of mRNA molecules requires high precision, for which nanoparticles have been used to embed in lipids to achieve its stability (Centers for Disease Control and Prevention (c); Mayo Clinic, 2021).

However, all this cutting-edge research requires extensive funding and specialized personal capable of transferring the nanotechnological theoretical knowledge into concrete applications and devices as vaccines. Therefore, according to the Global Health Centre of the Graduate Institute Geneva (2021), the United States and Germany are the largest investors in vaccine Research and Development (R&D), followed by China, Great Britain, and European Union (Figure 4). The 90.7% of the 6.6 billion dollar investment in R&D comes from the public sector.

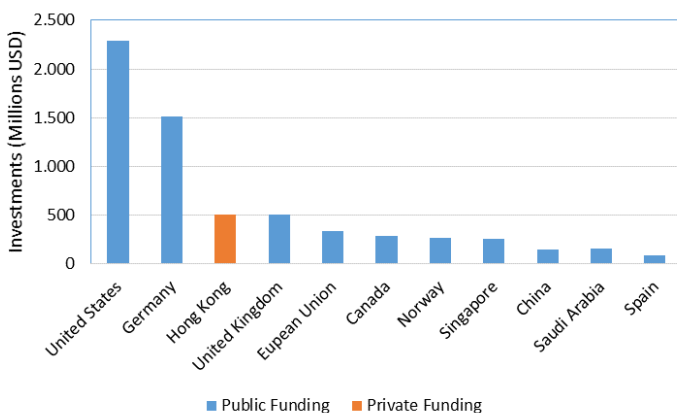


Figure 4. Covid-19 investment funding per country and fund type

Source: *Global Health Centre, (2021).*

Most companies received public funding, but most of these funds went to private companies. According to the Knowledge Network on Innovation and Access to Medicines (2021), the public sector and the Coalition for Epidemic Preparedness Innovations (CEPI), which is 97% public funding, invested approx. 5.6

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billion USD in developing COVID-19 vaccines, from which nearly 95% was received by private companies, Janssen, Moderna, BioNTech-Pfizer, CureVac, and Novavax laboratories the most benefited (Table 1).

Table 1. *Covid-19 vaccine R&D funding (Millions USD).*

United States (2,289.5)	Janssen (1027.85)
	Moderna (957.3)
	Novavax (534.45)
	Innovio Pharma (98.5)
	Merck (38.03)
	HDT Bio Corp (8.2)
	Esperovax (0.61)
Germany (1507.21)	BioNtech/Pfizer (800.29)
	Curevac (741.68)
	IDT-Biologika (132.07)
	CEPI (1425.99)
Hong Kong (503.42)	Sinovac Life (500)
United Kingdom (499.59)	CEPI (1425.99)
	University of Oxford/Astra Zeneca (118.01)
	Scancell (2.59)
European Union (330.98)	Curevac (741.68)
	BioNtech/Pfizer (800.29)
	Osivax (20.34)
	Opencorona (3.48)
	CEPI (1425.99)
	CEPI (1425.99)
Canada (283.58)	Medicago (135.46)
	Canadian National Research Council (11.26)
	University of Western Ontario (0.75)
	CEPI (1425.99)
Norway (262.43)	CEPI (1425.99)
Singapore (250)	BioNtech/Pfizer (800.29)
China (145.05)	Sinopharm (144.96)
	University of Oxford/Astra Zeneca (118.01)
Spain (86.89)	CEPI (1425.99)

Source: *Global Health Centre, (2021).*

The logic behind the materialization of vaccines is the commercialization for profit-making. Patents are one vehicle, if not the most important, to secure the appropriation of knowledge by the owners of it. To overview the ownership of Nano enabled Covid-19 vaccines, we search in World Intellectual Property Organization (WIPO) through its database (Patentscope). We find 259 solicitations of patents with nanotech components to fight COVID-19; from the whole, 39% seek a PCT registration, to commercialize the knowledge acquired in different countries (Figure 5). Likewise, we find that the principal patent applicants are institutions and industries from advanced countries. In 41% of cases, they pursue the patent under the category of medical, veterinary, or hygiene.

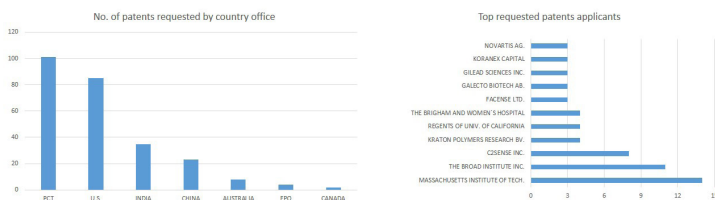


Figure 5. Patents requested by country (Left). Top requested patents applicants (Right).

Source: WIPO Patentscope, August 2021.

Research conducted by Kis and Rizvi (2021) suggests that the elaboration of the mRNA type vaccines produced by Moderna and BioNTech-Pfizer (developed with public funding) can cost up to USD 2.85 per dose, and USD 1.20 per dose for Pfizer. However, due to the lack of transparency of pharmaceutical companies, the exact cost of manufacturing is unknown. Researchers used a technique based upon computational modeling to estimate the production cost to recreate the industrial requirements and the raw materials and human workers needed to manufacture these vaccines massively.

Data from Dransfield & Thériault (2021) show the investment from different countries to purchase vaccines and the surcharges at which pharmaceutical industries are selling vaccines. Companies have been charging up to 24 times the potential cost of production, with the highest reported cost paid by Israel. Although, many countries have no available data on how much they have paid for these vaccines. In addition, it must be considered that the prices of vaccines are subject to supply and demand, which is why countries such as Israel, United

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States, and the European Union pay a higher cost in exchange for having monopolized the market and an immediate provision. In contrast, developing nations on the African and Latin American continents must wait for availability to purchase, without consideration of the Advanced Purchase Agreements (APA) that rich funding countries sign to develop vaccines (Table 2) (Wouters *et al.*, 2021; Çakmaklı *et al.*, 2021).

*Table 2. Advanced purchase agreements between countries and pharmaceuticals.
(Millions USD)*

Biotech/Pfizer	Israel (352.5)
	European Union (11,340)
	Panama (84)
	United States (5972.48)
Curevac	European Union (2767.5)
Sanofi Pasteur/GSK	European Union (2790)
	United States (2100)
Moderna	European Union (2880)
	United States (4500)
Janssen	European Union (1700)
	United States (1000)
	African Union (2200)
Novavax	United States (1600)
Astrazeneca	European Union (1060)
	United States (1200)
	Brazil (942.65)
	Thailand (469.09)
Valneva	United Kingdom (858)

Source: *Global Health Centre (2021).*

According to the World Health Organization (WHO), before the COVID-19 pandemic, countries paid an average price of \$0.80 per dose for all non-COVID

vaccines. Even though all vaccines have differences and new vaccines methods cannot be directly comparable, one of the cheapest COVID 19 vaccines on the market, Oxford-AstraZeneca is nearly four times this price, the Johnson and Johnson vaccine is 13 times. The most expensive vaccines, such as BioNTech- Pfizer, Moderna, and the Chinese produced Sinopharm, are up to 50 times higher (Figure 6). Such is the case of the COVID-19 Vaccines Global Access (COVAX), which reported that for its first 1.3 billion doses, it paid an average price of \$5.20 per dose, approximately five times more for vaccines.

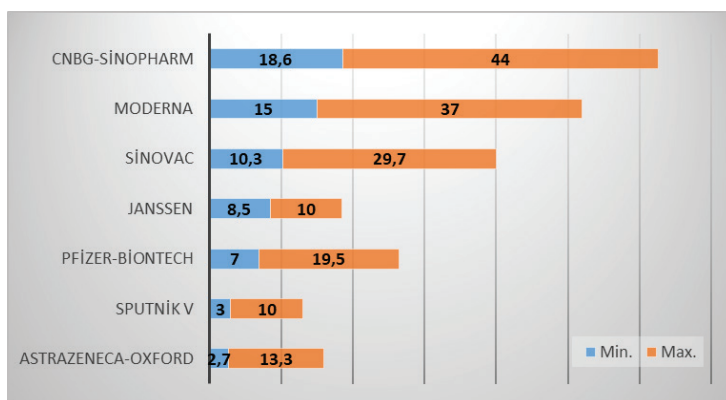


Figure 6. Minimum and maximum approx. cost (USD) of Covid-19 vaccines of different brands.

Source: UNICEF, 2021.

Besides, vaccine prices are only one of the multiple factors in the cost of immunization campaigns. There are other additional costs such as medication, with several surcharges depending on the country's conditions to treat the COVID-19 like Remdesivir (Veklury), an antiviral drug, Bamlanivimab, Etesevimab, Casirivimab, and Imdevimab (REGEN-COV), which are used for antibody regeneration as treatments for covid-19 patients. Pfizer spokesman declared that prices would rise again. He explained that the increase is due to the adaptations and changes they have to perform in their vaccines to attack the new variants of the virus. Nonetheless, the profits of these companies have increased exponentially (Table 3), and it is expected that in the coming years, they will rise again due to the new variations of the virus and the future changes in the vaccination policy.

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Table 3. Profits of pharmaceutical companies for 1st. quarter 2021.

Brand	U.S. sales (USD)	Global sales (USD)
Pfizer-BioNTech	\$2.038 billion	\$5.833 billion
Moderna	\$1.358 billion	\$1.733 billion
AstraZeneca-Oxford	No U.S. sales	\$275 million
Sinovac Biotech's CoronaVac	No U.S. sales	\$264.5 million
Johnson & Johnson's	\$100 million	N/A

Source: Biospace, (2021).

Another problem complements the circle of inequity in the production chain of nano-enabled vaccines against Covid-19: distribution. Research and development (R&D), patents, production, and commercialization, have a common denominator: inequality and inequity. Developed countries are what have secured more doses to the detriment of developing countries.

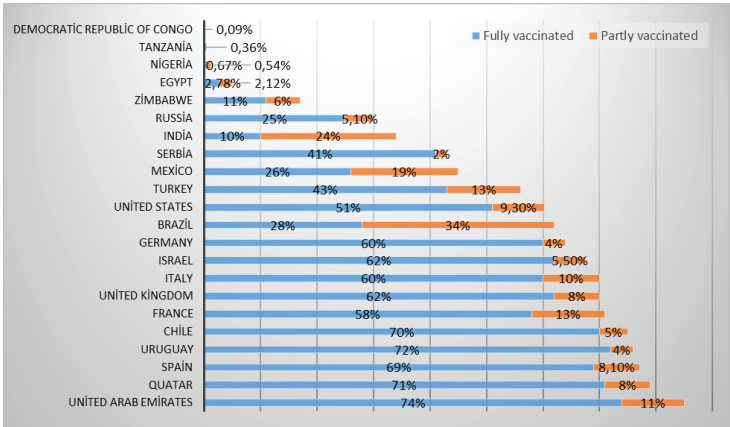


Figure 7. Percentage of people per country vaccinated against COVID-19.

Source: Our World Data from Oxford University, August (2021).

As shown in Figure 7, the countries with the highest percentage of population vaccinated (<60% with 1 or 2 doses) are mainly developed countries. Poor and developing countries are far below 1%, as in Tanzania and the Democratic Republic of the Congo. The same situation applies to the African and Latin American

continents, oscillating in 20% to 40%. The difference is the result of the lack of agreements and resources for the acquisition of vaccines, which are also surcharged generating a very flagrant social distinction on those who can save themselves in an emergency.

Appropriate guidelines must be established to regulate monopolies and excessive profits that pharmaceutical companies secure from the chain of production of nano-enabled Covid-19 vaccines.

Conclusions

The world is under one of the worst economic and health crises in the last 100 years. Covid-19, until August 2021, has claimed the lives of more than 4.5 million people and infected about 220 million. The world's governments have advanced several initiatives to solve the problem. Still, the vast majority have opted for technological innovations and have ignored the economic structures that dominate the dominant mode of production. This chapter shows that vaccines are in the hands of transnational pharmaceutical corporations headquartered in the Global North. The so-called social benefit advances throughout the historical-structural logic of capitalism: i) ensuring extraordinary profit, ii) monopolizing knowledge (via patents), iii) increasing prices according to supply and demand dynamics and iv) controlling distribution to the detriment of the welfare of poor nations. The advancement of nano-enabled Covid 19 vaccines has benefited transnational companies and developed countries. They are the real winners behind the worst pandemic of the new century. Arguing that vaccines are the best solution to stop the global pandemic of Covid 19 implies advancing an economic structure where few are the winners, and the majority lose. This, in addition, projects an unfair distribution in the application of vaccines since the countries where they are developed are the ones that first ensure the doses to cover their population.

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NANOTECHNOLOGY AND COVID: TECHNICAL SOLUTIONS IN THE HUNT FOR INEQUALITY

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13

PANDEMIC AND SOCIETY - CHANGES AND CHALLENGES

Nana Bakhsoliani¹, Nanuli Azikuri²

Abstract

Infectious diseases, which periodically emerged as pandemics in the world, not only destroyed people but also empowered self-preservation and pushed for the invention of medication. The rich folk medical tradition of Georgia proves that in ancient times the same methods of fighting the disease were used in Georgia, which are successfully used by the world medical community under the current Covid pandemic. It was the isolation of the diseased, for which there were two rules – at home and outside the home. As for the means of treating the disease, it was common practice in Georgia to take necrotic tissue and pus from the “furuncle” of plague patients, store it until it became powder, dissolve in water and take it. Vaccination against smallpox (variola) had been developed by the Georgian people since ancient times; therefore, it did not cause panic and despair among people. Amid the ongoing Covid pandemic today, vaccination has divided society into two parts. This is facilitated by the fact that the virus mutates and obscures the vital and beneficial functions of the vaccines created. Traditional and social media also play a role in complicating matters, as information cannot be controlled, false narratives are more common and transparency is less. The pandemic also left a deep imprint on the fact that the ban on mass gatherings temporarily put an end to the Georgian tradition of the departed; children were cut off from real learning opportunities and women who lost their jobs have become even more vulnerable to domestic violence.

Keywords: Folk medicine, quarantine, vaccine, violence, media

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Introduction

The current global pandemic has weighed heavily on the scales and has profoundly affected the lives of people around the world. These changes have affected not only international relations, economy, education, and health, but also the driving force of the universe – man. The subject of our research is the study of various remedies, methods, basing on historical documents and data of traditional folk medicine in a historical perspective, which provides statistics on diseases, treatment, methods of fighting diseases. Some of them are still relevant today (isolation, vaccination). At the same time, new problems arose in the society, which completely changed the usual rhythm of human life and subjected it to the problems of an internal pandemic. The planet is currently living under the dictates of the Covid virus.

Present paper deals with current infectious diseases, pandemic-induced changes, and the challenges that are first proposed in scientific circulation. The paper was written based on the data obtained through direct observation on the society, human life, with the consideration of the research method, such as the study of the problem via a complex-intensive method, involving the discussion of certain aspects of human material and spiritual culture (Chitaia, 2001, p. 77). The research has shown that the emergence of each new unconscious and dangerous virus is accompanied by great difficulties. In the first place, it creates a big obstacle and highlights the problem of people, masses, disobedience; that it is difficult to manage the masses of people in extreme situations and to reverse their actions for their good.

An unknown virus that suddenly hit the world population forced the medical community to seek a solution. It was necessary to take urgent action and provide public immunity. For this, it became necessary to create an antiviral vaccine, which requires quite a lot of time and testing. The virus got stronger and started spreading very quickly. Time passed and one after another there appeared vaccines under different names. From the very beginning, the vaccines created in the extreme situation were met with distrust by the public because they had not passed the full medical examination. The resistance of people was intensified when the distrust was supported by some medical workers as well. This was since the comments made by the medical staff did not promise a 100% protection guarantee.

Temporary pandemic-related suspension of theaters and other cultural events had a severe impact, especially on the sections of society for whom it was vital to have a cultural lifestyle.

The paper is based on the theory of the French scientist Michel Foucault, who also studied the measures taken during the Plague epidemic in the French city of Vincennes in the 17th century; he concluded that the answer to the epidemic which brought unrest into people's life, was met with a certain order. This, in the first place, meant a locked space where each individual was assigned his or her own precisely defined place and was constantly controlled. According to Foucault, all these and other measures created a compact model of disciplinary mechanism, meaning that the epidemic was met by a certain order, which had to prevent possible unrest caused by the spread of the disease. In the fight against the Plague, discipline took the reins into the hands. A specific disciplinary scheme, an in-depth control structure was created; this did not imply a division of the society into healthy and diseased, but individual redistribution into several divisions under constant control (Foucault, 1999, p. 89).

Infectious Diseases in Historical Retrospect

Throughout the existence of mankind, epidemics and pandemics occurred at the same time intervals, as the current situation. Diseases immediately prompted people to find a way to identify, heal, reduce, and prevent their underlying causes. Therefore, in ancient times in different parts of the world, when people were ill, they used not only mystical spells, magic, since it is widely believed that people are obsessed with feelings and thoughts about their fate, the meaning of life, the future and possible death more than when they are healthy (Archimandrite, 2010), but also successfully used pharmacology based on purely empirical knowledge. For example, Sumer, Babylon was markedly advanced in the medical practice of the ancient Near East; this is confirmed by the surviving epigraphic and clay inscriptions. In this respect, interesting is the Code of Hammurabi where we find references to diseases and treatment. Here is an interesting passage for us: the legislator refers to the classification of diseases such as acute pain, severe disease, painful injury (Code of Hammurabi, 1988, p.53-54).

Epidemics and pandemics could not bypass Georgia as a part of the world and the country of rare geostrategic location. How often this happened and how people

fought against them can be judged by historical documents and traditional medical folk culture. For example, in ancient Georgia, epidemic diseases were referred to as *moaruli* (lit. wandering), *chamomavali* (coming), *sarigo* (consecutive) (Mindadze, 2013, p.37). In our opinion, the content of these concepts unambiguously indicates that the disease spread from one country to another, yet to another, and so on, already turning into a pandemic. But it should also be considered that in ancient Georgia the term *sakhadi* (infectious disease) (Saakashvili & Gelashvili, 1955, p.163) excluded the recurrence of the disease whoever suffered the disease once, would never get infected with it again.

Incurable diseases (plague, measles, cholera), which were periodically spread in Georgia, were used today to prevent or spread the widespread method: In Georgia to prevent incurable diseases (plague, smallpox, and cholera) and they are spreading, they would apply the method still widely used today: isolation of the diseased, at home and outside the home. In olden times windows and doors in the house of the diseased would be decorated with thorny plants, this was believed to prevent the disease from going out of the house. A furrow would be made around the village or part of the village, where the epidemic raged. It was believed that the disease could not overcome the circle of the furrow. This accurately expressed the popular belief that disease is caused by some reason and this cause is sought in both the objective reality and the mystical world (Mindadze, 2013, p.71).

The search for the cause in the mystical world and the relation between a man and the Supreme/saints is well seen in the 12th -13th –century manuscripts, where St. Barbare – the patron saint of the diseased, enters the bath-house, make a cross on a marble niche, and from there the water flows abundantly, in which the diseased bathe and are healed like Hezekiah, lepers are purified like Naaman, and the devil departs from men in fear (Bardavelidze, 1948, p. 10).

In both separate cases of infectious diseases and during the epidemic, it was a common practice to send the diseased away from the village. For example, in Khevsureti, when it was noticed that a person was developing *sidample* (an undiagnosed disease, most likely leprosy, or a type of venereal disease), he was taken to the hut, built for him outside the village; food was delivered from outside and no one entered the hut (Mindadze, 2013, p.72). As for the frequency of pandemic outbreaks, in the 19th century, the countries bordering Georgia to the south were

a permanent hotbed of plague and cholera. Before Georgia's unification with Russia, there was no quarantine in Georgia.

In Kartli-Kakheti the epidemic of plague was documented first in 1803-1807, for the second time in 1811-14, for the third time in 1838-1843, then in 1855-1857. Epidemics caused great casualties. For example, Plague in 1803-1807 killed 1570 people in Kartli-Kakheti. 5592 people including 4255 diseased died during the epidemic in 1811-1812. The plague also spread to Imereti. From the letter of King Solomon of Imereti, we learn that one-third of the population of Imereti was annihilated due to the disease and failure of crops in 1810 (Shengelia, 1980, p. 236). In 1838-1843, the epidemic which was limited to Akhaltsikhe took the lives of 288 people. This epidemic raged in different parts of the Caucasus until 1843, causing a high mortality rate of 57%. Since then, the plague epidemic was relatively reduced. In 1828-1830 there emerged a new disease, cholera, which affected 25,809 people and killed 13,795.

Of the diseased 16377, 5914 people died in the 1857 cholera epidemic. Anti-epidemic measures were well developed: complete isolation of the diseased and affected areas in a strict regime, disinfection of used items using the methods of that time, quarantine service (special committee for fighting contagious diseases with the following membership: Civil Governor of Georgia, Chief Doctor of Tbilisi Hospital, Regional Prosecutor, Inspector of Medical Administration, operator and Quarantine Inspector) and the use of the regime. This contributed to the eradication of the epidemic.

As for the means of treating the disease, it was common in Georgia to get necrotic tissue and pus from the "furuncle" of plague patients, store until it turned into powder, dissolve it in water, and consume. It is noteworthy that educated physicians of the time saw in this a pernicious superstition that was the source of the incessant Plague epidemics in the East. This was a popular understanding that later formed the basis for immunology (Shengelia, 1980, pp. 237-238).

Tbilisi doctors developed an anti-cholera treatment: the treatment implied 10 drops of white kerosene in wine or vodka 3 times a day for 2-3 days.

Flu epidemics were known even under Hippocrates. Flu epidemics were reported in 1889-1890, 1918-1920, 1957-1959, and 1968-1969. Each pandemic claimed the lives of millions of people. For example, 20 million people died during the

“Spanish Flu” in 1918-1920. The Asian flu claimed millions of lives. It is believed that the period between pandemics was characterized by flu epidemics that lagged far behind the pandemics in scale and incidence (Botsvadze, 2000, p. 291). We might think that the logical “end” of the flu epidemics that started in Asia at the beginning of the 21st century, particularly in China, would be crowned by a pandemic that hit the planet at the end of 2019. Epidemics of smallpox were known in Europe from the 6th century. In Russia, it appeared in the 16th century. Up to a million people were infected with smallpox there in 1881-1890. Of these, 205,200 died, some of the survivors were mutilated and blinded.

Smallpox was spread in Georgia from olden times. Georgian people developed a remedy against it – the vaccine from ancient times. It should also be noted that the 11th –century “Ustsoro Karabadini” (lit. “Matchless Healing Book”) describes smallpox both together with and separately from measles (Shengelia, 1980, p. 239). The 1770s document tells about the rules of treatment with smallpox vaccine and its consequences; about smallpox vaccination of a Royal family member – Prince Yulon and smallpox epidemic in Tbilisi. This reference is confirmed by A. Güldenstädt, who was traveling in Georgia and was in Tbilisi at the time. According to him in 1772 more than 100 children were vaccinated in Tbilisi. This process had become massive and universal. He describes the vaccination process as follows: with a tip of a large knife the physician would make a shallow, 1-inch cross-shaped incision in the groove between thumb and index finger, would dip the tip of a knife into the horn with smallpox serum; would clean the blood with a piece of cotton and apply the poisoned knife to the wound, put cotton on it and wrap with a piece of cloth. Güldenstädt writes about the results of these vaccinations: the children would be kept in the fresh air and would fully recover in a few days (Ioseliani, 1977, p. 139).

Special attention should be paid to Emmanuel Timon’s information dating back to 1713, it tells that the Georgians made a great contribution to the first distribution of smallpox vaccination variolation methods in Europe: in a certain way the Georgians inoculate smallpox with pus taken from a person infected with smallpox and thus cause a weak form of smallpox, which protects them from a real infection (Meyer-Steineg & Zudhoff, 1949, p. 89). This fact is corroborated by the letter sent to Emmanuel Timon by Mary, the wife of Montague the British ambassador to Istanbul, writing that smallpox which is so common in England is not dangerous. Thanks to the vaccine, she is in Georgia and would take

this discovery in England. She claimed to have been vaccinated together with her five sons to convince her compatriots of the great goodness of the vaccine (Ioseliani, 1977, p. 140). It seems that the spread of the vaccine had met with great resistance in England and European countries, but still it was introduced, the contagious disease could infect anyone and eventually everyone got the opportunity to be vaccinated.

Vaccination and Society

Before serious talks about the Coronavirus started, years ago a certain part of the society was vaccinated against flu. The process was voluntary and only the people with health problems were vaccinated. Opponents of children's vaccination appeared 12 years before the flu vaccination. Today their number has significantly increased. In their opinion, when the medication for the disease has already been discovered, vaccination is not necessary anymore, because it is interference with the human immune system. In 2020, when serious discussions about the Covid vaccine started the society split into two. The vaccination was started with great caution, first and foremost by the medical staff. The failure on the first stage of vaccination (death of a young woman immediately after the vaccination) and misunderstanding was followed by serious resistance and mistrust among the people. Along with ordinary citizens, doctors are also opposed to vaccination because the given remedies have not yet been studied, their validity is short and their consequences are incomprehensible. It is also doubtful that any of the current flu vaccines are 100% effective and may need to be repeated periodically, with no guaranteed results.

This led to an increase in excitement and serious controversy in society. Society has been divided, and the vaccinated and the unvaccinated insult each other. These verbal mutual attacks were particularly strongly reflected on social networks and the. For example, social network pages such as "The Vaccines and Risk Factors", "No to Compulsory Vaccination", "Vaccine Victims" unequivocally state, that in a "normal" case it takes 10-15 years to develop and test a vaccine, and publishes materials and opinions critical not only of Covid but of all types of vaccines. Information, videos, and articles posted in such closed groups have raised many questions about vaccine safety and contraindications. Whoever says anything against vaccination in public, will immediately be labeled uneducated. As for the Covid vaccine, the suspicion is that it is a newly introduced virus and has

not been properly tested. The situation is aggravated by the fact that vaccination is not properly promoted by the medical staff. Some physicians believe that the solution lies in strengthening the immunity and physiological suffering of the disease and not in vaccination.

The prevailing opinion in society is that the genetic structure of the virus changes during mutation in such a way that this vaccine may not protect against new forms of the virus, that people will have to deal with the Covid-19 mutations for long and will not wear a mask all the time and cannot be constantly vaccinated. Therefore, it is better for everyone to slowly suffer the disease without rebooting the healthcare system, and so that people develop immunity and become less contagious. The people with the risk factor must make their own choice regarding vaccination.

As is generally the case in such situations, nihilism and the sense of the end of the world have grown in people. Some may even go beyond the facts and actively say that the virus could be artificially created. This resistance escalated into an outbreak of anti-government anti-vaccination demonstrations in European countries and Georgia. They propagate theories of various conspiracies against “imminent and serious harm” of the vaccines and hide real achievements of vaccination in the fight against tuberculosis, diphtheria, measles, and other diseases (Chkareuli, 2021).

Problems with Covid vaccination have also been widely reported in traditional media. For example, one of the TV channels broadcasts series of programs related to vaccination. In one of the TV programs, information was broadcast about the civil movement started in various non-governmental organizations in Georgia with the motto “Let’s defeat Covid Fascism together”. On July 24, in many countries of the world, a popular movement took place, to which Georgia joined. The movement aimed to protect the rights of the citizens and set the question: is the vaccine harmless? This should be answered by specialists in virology, genetics, and molecular biology. However, another question is: who are the members of the Coordinating Council? They are different officials and so these questions arise naturally. The Coordinating Council should include virologists, specialists in molecular biology and genetics, who should answer these questions.

The Impact of Quarantine on Social Relations

Covid quarantine and various related restrictions have had dire consequences – people have distanced from each other, locked themselves in their homes, and most of them suffered a strong sense of loneliness. People with more discipline and stronger psyche used quarantine discomfort positively – they went deep into their lives, started completing unfinished business, many books were written for which people could not find time for long, this period was used to complete postponed activities. The Covid quarantine alienated people and evoked a strong sense of mutual longing.

No less interesting is the fact that quarantine has always been used as an effective anti-epidemic measure. Previously, quarantine was carried out on trade border and border roads with customs. It was permanent and temporary. Due to the spread of the epidemic in the Caucasus, on 1 January 1804 quarantine was first opened at three locations. The spread of epidemics often required the opening of internal quarantines, however, the government avoided expenses and the quarantines were badly organized. Some quarantines were located on the Turkish-Iranian border and protected the Caucasus from the invasion of infections from these countries, internal quarantines were located along the Caucasus Mountains and protected Russia from the spread of the epidemic from the Caucasus (Shengelia, 1980, p. 239). Frequent wars with the southern countries and the Caucasus mountain dwellers contributed to the frequent outbreaks and spread of the epidemic.

The Covid closure has had a particularly severe impact on unstable families and forced cohabitation of the couples with unstable relationships has contributed to an increase in violence. For example, if in 2018 the official rate of violence against women was 20496; this number was reduced to 18842 in 2019, and 18482 in 2020 and some of them even ended in disastrous results. The problem was especially evident in the wake of the pandemic when the women employed in several service sectors were left jobless. The statistics for 2019 and 2020 are only slightly different (Public Defender of Georgia's Report, 2020, p. 200). Naturally, the question arises: what is the reason for the small difference? In our opinion, the Coronavirus pandemic has exacerbated the situation for the victims of domestic violence, who find themselves face to face with the abusers in the same space. As a result, the risks of domestic violence have increased, while the likelihood of detecting cases of domestic violence has decreased due to reduced security services or the failure of the remote-work platform.

The pandemic has also sharply increased the risks of violence and neglect of children. In isolation, the mental health of the under-age is at risk. Significant restrictions were undertaken in pre-school and general education systems. The distant learning process is related to problems such as children's access to the Internet and computers, opportunity to receive a quality education, support for families with many children, people living in poverty, people with disabilities and special educational needs, and their proper participation in the educational process (Public Defender of Georgia's Report, 2020, p. 349). Still high is the dropout rate of students caused by difficult socio-economic conditions.

Pandemic and isolation conditions make it difficult to identify child victims because part of the services is performed remotely. The under-age often witness domestic violence against women, the rate of which has increased in many countries under the influence of the Coronavirus. Under the conditions of prolonged isolation, manifested are the forms of violence such as stress, excitement, bullying ... Over 50% of children live in the countries of the world where full or partial restrictions are imposed. These restrictions allow child abusers to harm the under-age. Children rarely have the opportunity to report about it, as the work of security services is remote, suspended, or reduced (Public Defender of Georgia's Report, 2020, pp. 353-354). Even though the statistical rate of violence against children is increasing (Public Defender's Report 2020, pp. 355, 358) in our view, caring for children, involving women in children's educational process, gives a strong hope of reducing child violence and the tendency of their neglect in the future.

Covid quarantine, the main task of which is to physically distance people and ban gatherings, also seriously affected the departed, because the mourners found themselves completely alone without the support of relatives. Covid had a great influence on national traditions and has so far left customs in the past. In this regard, it is noteworthy that the mourners in Tbilisi, who understand the situation, relieved their relatives and friends of the moral responsibility to be near them, saying that they would receive condolences by phone and on social networks. An extremely narrow circle of 10-15 people gathers at the funeral. While usually in peacetime this number exceeded 200-300 people. Gatherings in the villages continued until recently and now the villages have big problems in this regard – the spread of the virus in the villages of Georgia has reached its peak.

The most deplorable thing in the current process of globalization is that people do not fully realize the entire gravity of the situation. The abolition of certain restrictions (curfew, restaurants until midnight...) returned people to the usual rhythm of the old life (weddings, feasts, birthdays ...), but large gatherings are still limited. No resistance (bans, warnings, fines) has yielded results yet. It is as if the actions of the people are aimed at subconsciously facilitating natural selection by neglecting each other and allowing each other to gather.

Conclusion

The research conducted has convinced us that the concomitant infectious diseases are a natural regularity for the existence of humanity and its further renewal. Diseases immediately prompted people to identify its cause, heal, reduce the scale of its spread and prevent it. This, in turn, contributed to the development of medicine and technology. This picture is well illustrated by the mosaic of diseases presented in the historical retrospective. How they treated and introduced the innovations that initially aroused public distrust, fear, and nihilism; but the remedy eventually defeated the disease and even made it disappear.

But in the current conditions of globalization, when a high-tech vaccine reached the world community prematurely at the peak of the pandemic, insufficient transparency, uncontrollable information, false narratives that some countries of the world are interested in, as well as inconsistent and often delayed actions of governments have split the society in two. However, the vaccination process is also underway, which gives hope for an early end to the pandemic. In addition, the pandemic has put other important issues on the agenda painfully reflecting the interdependence between the state and society. The pandemic has had other consequences and has put human relations under question. Some national traditions are temporarily or maybe forever a thing of the past. What will happen tomorrow? We leave the question unanswered.

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14

COVID-19 INFLUENCE ON PROGRAM DOCUMENTS OF POLITICAL PARTIES PARTICIPATING IN THE 2020 PARLIAMENTARY ELECTIONS IN GEORGIA

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Abstract

The situation caused by Covid-19 in the modern world has had a significant impact on the global lifestyle and the results are deplorable worldwide. The pandemic has turned 2020-2021 into a difficult year in terms of the economy - tourism and education, and health challenges are no exception. The situation caused by Covid-19 required to take drastic measures in the spring of 2020 both globally and in Georgia. At the end of last year, the management of the situation became more realistic with future forecasts and recommendations due to the obvious shortcomings. The pandemic caused many problems in Georgia: such as economic short comes since the tourism industry has a significant impact on the country's economics. Thus, the issue is relevant internationally, especially on the example of a small country, as the views of political parties are well expressed in the pre-election period on how to ensure the country's priority areas, in particular - on the issue of economy-tourism.

Keywords: Georgia, Covid-19, Economy, Tourism, Parties, Elections, Programs.

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Introduction

There is no need to prove the fact that political parties, as the main instrument of modern democracies, are oriented towards individuals, even though the process of institutionalizing parties in Georgia is very slow. However, there are generally accepted issues that are presented here as usual, namely: the most important reason for the formation and existence of parties is to obtain political power in the state, popularize the human resources necessary for the formation of the legislative and executive branches of government and their interests and views (Bochorishvili & Kantaria, 2014). Consequently, being involved in the future management of the country and even being on the opposition depends on the above-mentioned issues.

In difficult times it's natural to pay attention to how they assess reality and what their solution is when it comes to finding solutions. Therefore, the chapter presents the electoral documents of the political parties that gain places in the parliament, where the parties, taking into account the current situation with Covid-19, set out their position on the tourism industry sector and offer their versions to the public to resolve the situation.

The paper aims to study, analyze and present the reality in Georgia based on Covid-19. As well as to show the effective steps done by the ruling political force to stabilize the situation and the attitude of political parties towards economic-tourism and education issues during the pandemic situation and the 2020 parliamentary elections.

Research method: The study of the issue is based on the method of the research of empirical material, it determines the issue based on the extensive material found during the pre-election period and by monitoring the political processes. As well as the attempt to show to what extent several commitments (national and international) are reflected in the current situation, and the correlation between promises and opportunities for execution.

The research hypothesis that against the backdrop of the pandemic, ahead of the 2020 parliamentary elections, political parties actively discussed overcoming difficulties in the country's election documents related to the economy, tourism, and education.

Literature Review

Discussions about the role and significance of political parties are relevant today at the international level. Consequently, a number of authors refer to their activities, their importance in a democratic state.

Political parties are usually considered a central, important issue for all democracies, says Wiliam Cross in his book *Political Parties* written in 2004, because they elect all leading officials, decide all political issues dealt with at the local and central levels; they dominate election campaigns. The author describes the Canadian example of how parties dominate election campaigns and notes that participatory democracy is responsible and inclusive, achievable only if political parties share and share local values (Cross, 2004).

Political parties are one of the main institutions of democracy, says Richard Gunther in his book *Political Parties and Democracy* (2001), the author notes that there is increasing evidence of low or less public trust in parties around the world. He discusses the key functions that political parties perform in a democracy. He refers to the elections as the main means and sources the structures and organizes the government (Gunther, 2001).

Interesting opinions about the importance of political parties and elections are recorded in T. Magstadt's book "Understanding Politics." Here the author notes that when discussing electoral constraints, candidates often make promises that they are not able to fulfill and implement because they cannot properly assess the expected difficulties (Magstadt, 2010).

In the Georgian realities, political parties as an important issue for the establishment of democracy were touched upon by some scholars in connection with their relevance in the country. In this regard, it is worthy to mention the study published by Zaza Bibileishvili - *Intra-party Democracy in Georgia* (2020), since the author considers that there is a lack of intra-party democracy in Georgia. In particular, it is mentioned that the responsibility and accountability of the leaders of political parties and the governing body to their supporters is not mentioned, which is an integral part of the index of internal party democracy (Bibileishvili, 2020).

The work of Bakur Kvashlava "Overview of electoral programs for the 2020 parliamentary elections", gives a clear comparative analysis of the programmatic

worldview of political parties, where the author highlights that the thoughts and views of the parties (Kvashlava, 2020).

It is worthy to mention that the chapter presents the analysis of pre-election programs published on the official websites of political parties, as well as some analytical articles published. As well as it should be highlighted that the materials published on the official website - *partiebi.ge* within the framework of the project funded by the Embassy of the Kingdom of the Netherlands, together with various materials, is an important contribution to informing the public, comparing, and observing researchers.

Georgia on the Background of the Existing World Processes during Covid-19

The current world situation, the threats posed by Covid-19, has endangered the population and economy of many countries (UN Sustainable Development Group, 2020), therefore, the agenda for specialists, everywhere, including in Georgia, has become a proper analysis of the situation and search for solutions. Lado Papava, professor, an economics expert, said: "Coronavirus will soon become an „economic pandemic“. No one knows how long this crisis will last, because economics has become is a hostage of medicine" (Kakulia, 2020).

From the point of world experience, we can recall several opinions were expressed. Particularly, they stressed that such a situation would slow down the pace of negotiations on free trade agreements; the global crisis is highly likely to have winners and losers; a pandemic may be in favor of certain industries if they adapt to changing market demands (Minashvili, 2020).

It is worthy to say that the countries with the highest prevalence of Covid-19 will receive the main economic blow. Other crisis-faced countries are those that are mostly dependent on tourism, oil, and other exports. According to many experts, the current state of the world economy is equated to the crisis of 2008-2009 (NDI & UK Aid Direct, 2021).

In addition, the development of the tourism sector must be directly related to the regulation of the economy. In this regard, Secretary-General of the United Nations World Tourism Organization (UNWTO) Z. Pololikashvili highlighted that millions of worldwide jobs depend on tourism (Pololikashvili, 2021).

According to the World Tourism Organization (UNWTO), instead of the expected tourism growth in 2020, traffic will decline, leading to a further setback in the sector, which will have a severe impact on the economies of tourism-active countries such as France, Italy, Spain, etc.

In this regard, Georgia is not an exception, here several factors have complicated the situation during the pandemic. The closed borders for tourism caused by COVID-19 in the world have naturally affected Georgia as well. Here it should be noted that in recent years, tourism became one of the most important sectors for the Georgian economy and on which the restaurant business, trade turnover, etc. rely.

The international situation, mainly the situation of major investor countries where the pandemic is raging, hinders cooperation, in this regard, international trade is also complicated, however, due to the location of Georgia, the development of the country's economy is directly related to the smooth and efficient operation of transport sectors, which is hampered by the pandemic. Consequently, the country's economy faces some challenges, which have aggravated the social background in the country (Economic Policy Research Center, 2020).

As soon as the situation in Georgia worsened, specialists began to take steps and measures to save the country's economy. Recommendations were related to tax incentives; medium and small-scale entrepreneurial assistance; payment of loans were stopped; banking assistance; the tourism-related sector needed significant assistance as well, where it was difficult to find ways out of the situation.

To regulate the current situation, a Coordination Council was established in Georgia on January 28, 2020, here we have to say that on February 26 the country had the first infected and on March 21 a state of emergency was declared. Initially, two main directions of the Council's work were identified: citizens' health and saving the Georgian economy (Bochorishvili & Kavtaradze, 2020).

The first steps to help the citizens started on March 13, were significant: it was an aid in terms of utility bills; the insurance of price increase for 9 basic products. The government also did its best to help entrepreneurs, making several important decisions that are critical and essential for companies and entrepreneurs.

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The government of the country was well aware of the importance of one of the most significant and vital components such as agriculture and therefore took care of it as well. While referring to agriculture we have to say that its function and role has become clear today, the fact is that it must meet the demand generated in the country, for basic food products, therefore, the development of local production becomes extremely important (Government of Georgia, 2020).

The Government of Georgia in March 2020 developed the measures to support the economy to mitigate the negative impacts caused by the spread of the coronavirus, which provided several benefits to businesses, citizens, companies engaged in tourism activities; hotels and restaurants, travel agencies, transport companies, excursion activities, organizers of cultural and sports events, etc.

It is worth saying that, the tourism industry was added to the vaccination priority groups by the decision of the Coordinating Council. Particularly, legally registered travel companies, accommodation, and catering facilities have the opportunity to undergo pre-registration for voluntary vaccination. Georgia is the first country in the region to claim that the tourism industry will be the safest and is ready to host international tourists with vaccinated staff employed in the tourism industry.

We have to highlight that Georgia is actively involved in the UN Development Program, which helps to overcome the problems caused by the coronavirus in the country (UNDP-Georgia, 2021). However, despite the acute international economic situation, and many measures taken by the government, the economic situation in Georgia is still very tough.

COVID - 19 and the Issue of Tourism in the Program Documents of Political Parties (2020)

Due to the relevance of the issue, the article presents the pre and electoral period of 2020. Nine political parties overcame the required minimum percentage of parliamentary elections and occupied places in the Parliament of Georgia. They are - 1. "Georgian Dream - Democratic Georgia"; 2. Bloc "United National Movement - United Opposition" Power is in Unity"; 3. "Bakradze, Ugulava, Bokeria - European Georgia - Movement for Freedom"; 4. Block "Giorgi Vashadze - Strategy Builder"; 5. Lelo-Mamuka Khazaradze; 6. "Davit Tarkhan-Mouravi, Irma Inashvili - Alliance of Patriots of Georgia"; 7. "Girchi"; 8. "Aleko Elisashvili - Citizens"; 9. "Shalva Natelashvili - Georgian Labor Party" (Darchashvili, 2021). The

given work presents their views and attitudes towards the strengthening of tourism and related sectors or industries, and policies to support the tourism sector, including for small (family) and medium-sized tourism spheres.

It should be noted that the ruling party “Georgian Dream - Democratic Georgia” as soon as it came to power, did its best to support the development of Georgia’s unique tourism potential. In the conditions of the severe spread of COVID-19 in the world, the government of Georgia in close cooperation with the private sector, launched a project against the background of suspended tourism activity, particularly it set up quarantine zones in hotels located in different regions of the country. Thus facilitating the effective management of the process at an early stage, preventing the spread of the virus, and ensuring the health of the population. To compensate for the damage done to the tourism sector by the COVID-19 pandemic, the government has also developed targeted measures to support the sector; the World Tourism Organization named the quarantine zone project implemented by Georgia as the best example. In the future, the party plans to present Georgia as the host country in 2023 at the largest and most influential tourism exhibition in the world - ITB Berlin 2023. Also in order to develop medical tourism, identify balneological resorts throughout the country; gradual development of resorts (Tskhaltubo, Abastumani, *etc.*) to maximize the tourist potential; to develop gastronomic tourism, promote the typical/authentic cuisine of the region with the involvement of the country’s leading chefs, tour operators, and the media; to develop wine tourism, great support for the project - “Wine Route”; development of business tourism to attract high-budget business travelers to Georgia; to popularize Georgian architectural monuments, frescoes, and relics, the country also plans to develop pilgrimage (religious) tourism. It should be noted that the ruling party - “Georgian Dream” has implemented several projects for the development of ski resorts as well.

As for the development of mountain resorts in Georgia, here we have to say that a number of activities are planned in the coming years, in particular, for the development of ski resorts (Gudauri, Bakuriani, Goderdzi, Tetnuldi, and Hatsvali), the improvement of ski infrastructure and the creation of four-season tourism products in 2023, Georgia will host the Freestyle and Snowboard World Championships, and 12 international competitions will be held here before the championship. Thus, Georgia is expecting thousands of visitors during the championship (Georgian Dream - Democratic Georgia, 2020).

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As for the opposition - the political union “United National Movement - United Opposition”, for the strengthening of tourism, aims the complete abolition of income and profit taxes, as well as the maximum simplification of tax administration. According to their thought, 2/3 of the Tax Code should have been simply repealed, which would have directly strengthened the tourism business (United National Movement - Power in Unity, 2020).

“European Georgia - Movement for Freedom” believed that Georgia needed to implement infrastructure projects through foreign investment in order to bring more money into the country and increase the country’s tourism or transit potential and make Georgia a regional hub. To achieve this goal, European Georgia planned to: open a low-budget Rustavi-Marneuli airport; develop Kutaisi Airport and create additional cargo terminal their; to open of Tbilisi-Batumi high-speed railway; to launch Tbilisi Bypass Railway; construction of Lentekhi-Mestia, Gombori, Goderdzi, and Mleta-Kazbegi tunnels; complete the construction of a seaport in the Gulf of Anaklia.

The political union “Strategy Builder” has developed a Georgian model for tourism development, which would bring 25 million tourists into the country in five years, 10% of whom would be highly profitable, which would give the country an additional \$ 5 billion and provide about 80,000 jobs. They planned to arrange accommodation facilities for tourists - in the areas of at least 180 branded and health hotel complexes and 3,000 guest houses in the villages (with state support). In addition, their goal was to attract investment to develop a branded hotel in all districts. As well as the development of health tourism and resorts was considered as the top priority issue. They claimed that Georgia is a country of four seasons - in case of coming to power, they planned to promote tourism in the following directions: Georgia - the homeland of pitcher wine; the largest-scale New Year event; folklore festival; within the framework of the festival, Georgia would host the peoples of the world; youth festival - Music and Technology. They also planned to build two congress halls in Kutaisi and Batumi for the development of business tourism, which would host business and business tourists, where international summits, conferences, meetings would be held and would receive about 500,000 business tourists a year, which would mean at least \$ 300 million.

According to “Lelo” for Georgia, the tourism sector should play an important role in stimulating domestic agro-food production, employment, and income generation.

The policy objective in this sector was to keep at least 70% of tourism revenues in neighboring sectors. Employees in the tourism sector should be gradually trained to receive high-budget tourists and offer appropriate services, which would contribute to the rapid growth of the high-paying tourist segment. To facilitate the rapid growth of the high-paying tourist segment, the state would take into account the rehabilitation of tourist sites (for example, near cultural monuments) and the provision of appropriate services when planning infrastructure projects.

Large tourism projects should be implemented only within the framework of public-private partnership, directly in business (construction of a large hotel, *etc.*). For this, the state should conduct effective campaigns to attract tourists, including in cooperation with wine exporters. For instance, placing a discount voucher code on each bottle of wine sold for export, which, if visited in Georgia, would benefit from benefits for various services. Organizing international conferences/seminars would be supported by reimbursing 20% of the expenses incurred from the budget. Maximizing and using the tourism potential of each region of Georgia to maximize the needs of the domestic and foreign tourism market. The role of regional and municipal authorities in the operation of the tourism sector would be increased to fully identify places with tourism potential and stimulate relevant business projects. The not less important thing is that they planned to issue a small grants program for businesses with tourism potential in the regions. Moreover, the Lelo health sector development plan envisaged the development of medical and rehabilitation tourism. Lelo's agricultural supporting plan and regional projects provided agro-tourism development. The proper focus on ecotourism was in the development of highland and peripheral geographical areas.

"New Political Center – Girchi" believed that tourism was a normal business, which, if not restricted by the state, would develop in a very profitable way. They promised that they would not interfere with business, on the contrary, they would help equally and fairly, in particular, reduce taxes and repeal various regulations. This approach also applied to the tourism business as the production of wine or mandarins and equally contributed to their development. They claimed that the tourism business will be one of the most profitable for the Georgian reality because the Georgian cuisine and the tradition of hospitality/hospitality provide the best preconditions for this.

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The political union “Aleko Elisashvili - Citizens” noted that the biggest economic blow in the pandemic was in the field of tourism. This is why it was believed that workers in the tourism sector should maximize tax breaks to use the money earmarked for taxes to support businesses, wages, employees. In addition, the Citizens’ Party had developed a long-term plan for tourism development based on a concept called “Heritage Will Enrich Us”. They believed that only a small part of the potential of cultural heritage in Georgia is used today, and their maximum use will seriously encourage the tourism sector and, consequently, will bring more economic benefits to the country. According to their plan, the buildings of the state-owned castles should be fully privatized, because today 99% of such buildings are in the hands of the state and none of them are fully functional, most of them are abandoned. They think that in case of privatization of such buildings, the investor should be obliged to restore them and establish tourist centers there. All this at the local stage- in villages, regions - will develop small businesses, create many jobs, etc. According to their plan, wine tourism should be developed as well, since they were sure that it was a very profitable and fruitful area. According to archeological researches, Georgia is the country in which one of the firsts started wine production, but unfortunately, not many people in the world know about it. To gain worldwide awareness, first of all, a wine museum should be set up in Shulaveri, right where this beech (grape husk) residue, the first tartaric acid, was discovered; archaeological tourism should be developed, which will benefit the country’s economy. For the world’s leading archaeologists/researchers, this will be the best opportunity to conduct research and training activities in a low-cost, completely unprocessed environment compared to other countries, while leading academic institutions to plan field practice archeology at a very affordable price.

The 2020 pre-election promises of political parties presented as a result of the study of empirical material show that the opportunities for the development of tourism in Georgia were correctly calculated by political actors and played a large role in the development of the future of the Georgian economy. It appeared that the tourism industry was their top priority issue and they had a certain plan for its development, the potential of which is great in Georgia.

Conclusion

The COVID-19 pandemic has changed the world agenda: the countries faced great challenges in different directions, and Georgia is not an exception, all the

difficulties also affected its reality. The paper presents the responsibility of the Georgian government to stabilize the situation and overcome the crisis. The views presented in the policy documents of the political entities participating in the parliamentary elections in Georgia in 2020 refer to a very vital direction of the country's economy - tourism.

The studied documents show that in the pre-election period the parties are doing their best to please the voters and present themselves with a fairly well-calculated agenda on topical issues for the country. Much of the ruling party's agenda also deals with the consequences of their stay in power. This to some extent is aimed at increasing the degree of public trust. The presented pre-election promises are also important because the resources of the country that exist for the establishment and development of different types of tourism are presented to some extent.

Recommendations

Even though the parties made very big promises during the pre-election period, their programs are less accessible to the general public. Although the promises made by political leaders are accessible on the Internet, since their programs are posted on the websites of the parties themselves, however, it is still impossible to provide the public with full information about the programs. In this regard, we have to say that mostly, large, leading political entities have the opportunity to widely disseminate election programs through the media and campaign newspapers. I think it is desirable, at the level of the Central Election Commission or the centers of democracy in the districts, to commit to releasing the program information of any party regarding tourism or other issues. This will not only help expand the participation of the parties in the decision-making process on a particular issue but will also allow the population to better understand the issue of where the potential of each citizen can be used. The promises of political parties in different directions should be more convincing, confirmed by the correct calculation of the corresponding resources available in the country (at the level of departments), since there is no doubt that this will increase the confidence of the population.

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FISCAL SIMULATION PRACTICES: THE TEXTILE COMMERCE CASE IN MEXICO AND ITS CHALLENGES IN THE FACE OF THE COVID19

Armida Concepción García¹

Abstract

This chapter is an exploration of the economic stimulus strategies in the wholesale textile products purchase processes in Mexico. The goal is to understand the growing informal economy in Mexico, as well as the alternatives taken by the government to attract the non-taxpayers. Through ethnographic work and under the directed interviews as methodologic strategies technique, we joined textile products shoppers in doing their shopping across the traditional textile commerce centers in the central west of the country to register and analyze the commercial process under which they acquire their products. We focused on the perspective of the social actor and the bonds they build in the search of their livelihood, and the difficulties of doing their job amid the complications generated by the COVID-19 pandemic. The obtained information gives proof of the economical resistance, lack of information, and absence of tax formation in light of the implementation of tax reforms by the government. As a result, their commercial activities are reproduced under the combination of formal and informal, as well as legal and illegal processes, as a possibility of livelihood and reproduction.

Keywords: Informal commerce, taxation, tax evasion, COVID-19

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1. Introduction

Capitalism, on its historical run, has created economic configurations and their implications in society are part of new approaches and analyses. More than a problem, it opens the possibility of searching for new interpretations of the capitalist reproduction forms, their reach, limitations, and predominance, especially in a society influenced by the accelerated consumption economic ideology. The proliferation of unregulated or little controlled markets, as well as economic entrepreneurship combining informal and illegal practices with legal and formal strategies, generate new experiences in the areas of productive, commercial, and financial organization. In these frameworks of action, informality is generally understood as an illegality problem (Daude, 2012), cause and consequence of low tax collection and a halt for growing economies (Cervantes Niño, Gutiérrez Garza, & Palacios, 2008). Other studies focus the discussion on the fact that its presence is due to “exclusion” of fundamental benefits granted by the government or associated to the idea of escape, under which a great number of workers and companies choose their optimal association level with government mandates and institutions depending on their assessment of the net benefits associated with formality and their capabilities to enforce the law (Fajnzylber *et al.*, 2008, p. 2). For decades, several analytical postures have been proposed to study informality. However, current debates are directed to the combination of legal and formal strategies with their informal and illegal counterpart.

This chapter is the result of the exploration of taxing strategies used by social subjects with commercial activities that have a central livelihood juncture and/or condition within the formal-informal combination. The performed analysis is part of the study of the goods purchasing operations in two traditional textile commerce centers of the central west of Mexico. The ethnographic field work performed allowed us to explore and understand commercial operations in contexts where the access to key information is one of the main problems for the collection of reliable information. Using their analysis instruments allowed us to join the commercial process in the purchase of textile products, with the purpose of gathering information about the taxing abilities that social agents have developed to continue with their economic activities, which do not always fall within legal and formal frames determined by the government. The study's objective was directed to make underlying commercial processes visible to the eyes of those who are interested in commercial structure and development in Mexico.

2. Used methodology

Current trends are oriented toward search of information closest to reality and to the studied phenomenon which, while it can be strengthened with the use of statistics, the real scenario is hard to analyze. Therefore, ethnographic analysis as a methodological and observation tool allowed us to focus on the perspective of the social actors and the bonds that they build in the search of economic subsistence. That way, we managed to propose an investigation design with the purpose of capturing social relationships that are established in formal-informal commerce in Mexico and their intrinsic phenomena. Along with this objective, we chose the commercial corridor located between the municipalities of Moroleón and Uriangato, in the State of Guanajuato, and the flea market in the municipality of Chiconcuac de Juárez, in the State of Mexico, as spaces for analysis. These regions are recognized for their wide textile tradition (Pérez-Lizaur, 2010; Vangstrup, 1995). In our search for real and close information about the whole commercial process, we mobilized with key informants to shopping trips and search for the necessary goods that they offer in their businesses. As a result of this accompaniment, we gathered valuable information about the commercial practices (legal and illegal) under which business is traditionally done. Nevertheless, the complications of doing this research rose when enacting sanitary measures and commercial closings to mitigate the effects of the contagion in these zones.

Ethnographic method's potential resides in the ability to perceive what occurs in micro realities and as a work strategy, using this methodological tool allowed us to explore new approaches to understand how subjects experience economic life (Alba-Vega, Lins-Ribeiro, & Mathews, 2015). Under their premises, field work revealed data that would be difficult to obtain from official data. It is usually hard to count empirical information in this kind of research, given that it is extremely complicated to gather data since part of their activities occur outside legal and regulatory frames. Its use is justified by its potential of gathering information closer to the object of study, and by giving the researcher new socioeconomic phenomena approach alternatives.

Mexico has experienced deep technologic, economic, social, political, and cultural transformations, which have modified ways of work, scarcity of satisfactory, well-paid jobs, along with emergence and proliferation of survival commercial and economic strategies. In the last years, economic markets have substantially modified, yielding to economic and social reproduction schemes conceptualized

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as “informal”; ways of economic survival that are directed by social subjects that subsist thanks to strategies they generate in conditions that should be theoretically and empirically reassessed. Understanding informality as a static, illegal phenomenon, as a cause and consequence of economic variables, is looking at it from unilateral perspectives that ignores influence and performance of social subjects. Looking to understand it from these postures with no doubt constitutes an alternative focus to explain economic action in the current capitalist development phase (Salas, 2004, p. 63).

3. Theoretical path of informality

For more than four decades, different authors have contributed with explanations about the nature, genesis, and development of informality. The concept of “informal job” was proposed by Lewis in 1954 in *his* analyses on developing economies, in which he stated the existence of two sectors: traditional (agricultural) and modern (industrial). In the traditional one, there was an unlimited work force in conditions of unemployment or subemployment, which conditions stimulated rural-urban migrations as a result of the (sub)development conditions of the countries. Debates went on from positions developed by the International Labor Organization (ILO) in the seventies that named “informal sector” the occupational surplus now understood as “reserve army” and the inability of modern sectors to adequately absorb migratory flows. Such postures were resumed by the Economic Commission for Latin America and the Caribbean (ECLAC), which assumed “marginality” of informality. From its institutionalist analysis perspectives, the difference in the countries of Latin America between job creation and work force would be cause and consequence of the insufficient economic dynamic of peripheral capitalism which low storage capacity won't allow to absorb the exceeding work force, creating employability possibility in informality (Neffa, 2017).

Hart (1973) brought into discussion the concept of informality, thanks to his anthropological analyses performed in Kenya during the seventies, trying to understand how the regional job market worked. In his findings he managed to identify economic units that evaded any government regulation; a complex sector of marginal activities developed in its streets, the existence of home family workshops, craftsmen with “freelance” work, and unregulated small businesses. He called them “*the working poor*”, people who are not openly unemployed, but that came up with job ways within informality to survive. With his discoveries

he managed to anticipate several issues that would unleash multiple debates along the following decades: the complex relation between informality and poverty; the lack of a “complete” identification among informal activities; the predominant idea of informality as a synonym of low productivity; as well as the potential of the informal sector in terms of its capability for job and rent generation (Barbosa, 2011; Neffa, 2017).

In the evolution of the term, the idea of informality appears attached to the notion of “illegality”. Under this posture, it is identified as underground or not registered economy, which includes the contingent of illegally hired workers. Its analysis tries to understand the meaning of the group of productive and social insertions marked by heterogeneity, which would eventually generate new operational patterns in the *sui generis* job markets (Barbosa, 2011). Thus, the weight of informality in the group of economic activities differs depending on the used concept, focused on different job market dimensions and different types of occupational activities.

There are currently three main focuses under which the main theories on informality can be brought together. The first one is known as “old informality” that prevailed during the sixties and seventies, which viewed them as a peripheral, residual, marginal perspective. The second posture appeared in the eighties with the “neoclassic informality”, which proposes that informal work is a natural consequence of international competitiveness corporate strategies. A third one appeared at the beginning of the nineties. It was called “new informality”, “post-Fordist informality” or “globalization informality”, which would be the result of the new relations of work management forms that deny the work time and location fixed character. This *new* informality “unfolds in the dynamic center of peripheral economies”. Under these work and production ways, informality comes to be the result of a capitalist dynamic different from the past, which was the result of the lack of an actual capitalist dynamic (Veras de Oliveira, 2011). Current trends identify a group of socioeconomic transformations that justify “the need to theoretically rethink the concept” (Pérez Sáinz, 1995). The term informality cannot be used in a generalized way as if it were a linear or homogenous phenomenon. It is a multidimensional phenomenon in which the agents interact with the government in some dimensions with which “it creates a great gray area between the ends of total enforcement and no enforcement at all of the law” (Perry *et al.*, 2007, p. 4). Machado da Silva (2003), notice the ambiguous character of

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the term because of the difficulties to conduct an informal profile in Latin American countries thanks to their complexity and history.

In the last years big companies promote informality under disguised forms of stint remuneration and job flexibilization, or when it is combined with “formal” schemes such as outsourcing. The complexity to understand informal phenomenon broadens when empiric reality gives proof of its existence in developed economies; statistics of informal sectors in industrialized countries started to appear at the end of the eighties where they were characterized as underground economies, although they experiment socioeconomic schemes different from the ones of underdevelopment such as: greater salary stability, protection to productive units and their employees, etc. In developed economies informality is more of a temporary and residual characteristic, not with both the social and economic extension and depth that developing countries have. Tokman (2001, p. 23) emphasizes that it is no longer about proving the existence and importance of informality, but about learning “the impact that this would bring for the operation of peculiar job markets” and developing economies. Acceptance of what informality means comes associated with a new way of conceiving the possibilities of its development in the periphery of capitalism.

4. The tax problem of informality

The internal revenue service in Mexico has gone through several changes over taxation under the argument of fighting inflation effects, generating more rent, and counting on a better taxing structure. In the last years, the country has made multiple efforts in its struggle to collect greater revenues from economic contributions and tax payment, paying special attention to micro and small companies, with actions and programs to capture those that are not within the taxpayer register of the Internal Revenue Service in Mexico² (SAT, 2020) and therefore do not pay taxes. In accordance with Perry et al. (2007, p. 8), job informality “is a small company phenomenon. Understanding rationality of small companies’ decision of registering themselves and their staff, paying taxes, is fundamental to understand the phenomenon of informality”.

Within the proposed changes in economy, the need to offer a greater degree of simplicity to those taxpayers with a low-income level and a reduced administrative

2 For its initials in Spanish, SAT

capability is evident; in other words, to small companies (Gómez-González, 2015). By their characteristics, this kind of taxpayers were exempted from keeping their tax proofs and they were not required to issue invoices or documents for their revenues. For the government organisms in charge, the problems with tax collection arose from the facilities given to this sector, which allowed spaces for tax evasion and elusion from companies with a greater contributive capability. This lack of control encouraged what is known as “tax dwarfism”. The opportunity to take advantage of lesser tax proof obligations and thereby reduce their tax payment. In this way, tax authorities decided to undertake a tax reform with the objective of establishing new limits for contribution and collection, as well as the implementation of a media campaign created to capture the ones that are within informality by a scheme that will ease the access of taxpayers to a new way of collection in which taxpayers “will have an administrative transition that will help them learn to fulfill their tax obligations, taking care of aspects of income verification, order, and recognition as well as substantial and adjective requirements for deductions” (SAT, 2020).

Statistics presented by tax authorities tend to emphasize transgression of informality in tax collection. The National Institute of Statistics, Geography, and Informatics (for its initials in Spanish, INEGI), in their study about “Informal Economy Measurement 2015”, informed that 23.6% of GDP is informal and it is generated by 57.9% of the population working in informality conditions; while 76.4% of GDP is generated by formal sector, with 42.1% of the population formally working. That is, for each 100 MXN pesos (5.02 USD) generated from the country’s GDP, almost 24 MXN pesos (1.21 USD) are generated by 58% of people working in informality. Out of 23.6% of the informal economy, 11.3% corresponds to the informal sector, that is, those not registered business from homes dedicated to the production of goods or services. The remaining 12.3% corresponds to other modalities of informality that refer to every job that even when they work for different economic units from the non-registered microbusinesses, do not count with protection from the legal and institutional frame.

Despite the advances obtained in efficiency, tax policy has historically had little impact on economic growth due to a deficient application of public expense, a strong dependence on oil income, and a low tributary capture (especially) from the informal sector (Martínez Luis, Caamal Cauch, & Avila Dorantes, 2011). The proposed tax reforms have generated multiple debate in terms of role, size,

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and importance of informality on tax collection. Business sectors and state discourse tyrannize informal economy as the cause for the little income by tax generation, emphasizing the idea of its illegality. Under this premise it is emphasized that it impedes economic growth, halts tax payment, in addition to warning socioeconomic dangers that involves facing this work and economic situation. On the other hand, it ennoble the competitive and financial advantages of turning formal. Among the (possible) benefits of incorporating to formality, federal government offers the possibility to access social security services and obtaining state and bank credits under special payment conditions (SAT, 2020). The proposed reforms pursue as a main objective the incorporation of natural people that aren't registered in the corresponding tax system, under schemes that allows them to easily fulfill their tax obligations; however, in practice, micro and small commercial businesses have implemented different strategies that do not always follow the rules imposed by tax authorities.

5. Study results

As a result of the performed study, we found that commercial processes in the analysis sites initiate peculiar tax practices which by their complexity we decided to identify as "tax falsehood", since they encompass a series of regulatory gray areas that impede a total analysis, and that move within a line that goes from the fully legal to the illegal. That is, they are commercial behaviors that in general intend to be legal, but that in the detailed practice show illegality aspects, be that the illegal pole of the practice (tax evasion) is volunteer, or it is forced by the "agreed" conditions or (social) relations of commercial exchange which, though they are not legal, they are not completely illegal. Following this trend, flea market members, traders and market administrators located in commerce centers of the study, obtain economical remuneration that are declared to tax authorities, but that on many occasions are not totally declared or fully evade tax and contribution payment. For locating this problem, it is worth to differentiate among the three types of irregularity differentiated by the tax code of Mexico: evasion, fraud, and elusion. Evasion is every act of omission that causes the decrease or elimination of tributary charge. When it comes to fraud, it is an intentional action against tax collection; it consists of omitting (totally or partially) sums by concept of taxes, manipulation, or misleading practices: "non-payment". Elusion is a legal term that is used when taxpayers exploit loopholes in tax law acting within allowed margins of a norm. In other words, it is used when the tributary charge is reduced

by means of licit legal means (Ríos-Granados, 2008). To a larger or lesser extent, these practices are performed by social subjects and economic entities.

The strategy for acquisition of information consisted in joining merchants during the whole process of textile products purchase in the analyzed centers until finalizing the negotiation. Upon requesting an official document such as a receipt of the transaction of the purchased goods (with the guidelines established and demanded by new tax measures), manufacturers and vendors of goods in these sites did not have the technology and specialized counseling to perform such process. That is, a great number of manufacturers and/or vendors do not have neither the knowledge nor the technological instruments to do so. While every day the number of the ones who have accepted (reluctantly) these measures and search for specialized counseling increases, there are those who resist to deliver proof with the necessary legal guidelines. The little or no investment in technology, the inability to understand the invoicing programs, and the bureaucratic processes to request counseling to tax authorities, were some of the excuses expressed not to adhere to the new tax system. On the other hand, an important amount of those who did their tax registration and have everything they need to perform the invoicing processes, do it halfway; these vendors only invoice 5% to 10% of the real goods value. Invoicing only part of the total cost is an “implicit” agreement between both parts: buyer-seller. The bigger the amount in the tax document is, the bigger the percentage revealed to tax authorities will be and, hence, the greater the tax payment will be. In other cases, there are also vendors and/or good manufacturers that “sell” tax proofs, taking advantage of the lack of information that prevails about new invoicing processes. In these cases, the invoice has an additional cost of 16% of the value of what was purchased. For example: if you purchase \$15,000 pesos (830 USD) of assorted goods and require proof, it will have an “additional cost” of \$2,400 pesos (130 USD), i.e., 16 % of the total, other way the corresponding invoice won’t be issued. So, you will have to add the cost of the invoice to the cost of the purchased goods, which is why they prefer not to request a tax document or request it for a smaller amount. Good purchasers in commerce centers (especially those that purchase a great volume of products), accept these types of practices to bear less taxes and expenses.

Despite adopted strategies and multiple attempts by tax authorities to establish rules, controls, and implement new tax limits, along with maneuvers to attract members of informal market to formality by means of perks, facilities, and benefits

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to enter the tax system (and thereby, obtain a greater tax collection), this has not been entirely possible. Dynamics that prevail in commerce centers, markets, and the famous flea markets show a passive *resistance*. On first perception, both parts (seller-buyer) fulfill the regulations, but on the other hand evasion practices that touch the limits of the legally permitted are conjugated. Thus, tax proofs are issued in commerce centers, declarations are made, but they are also shielded in the unawareness of the law while creating new forms to avoid or evade tax guidelines. When a new judgement or law is issued, new ways to evade them or turn them around to their individual interests are created. One of the difficulties resides on the fact that tax evasion practices are hard to visualize, precisely because they are not perceived as such. Their operation is possible thanks to the fact that they are put into effect by vendors, manufacturers, and buyers.

Naming these activities under the label of “illegal” is to think of them under a limited notion. We must start from the fact that they are part of a process that cannot be understood from conceptual determinisms. Using opposite terms or labeling them as good or bad practices, legal or illegal, is to limit them, since they have shades that are imperceptible mainly because to those who put them into practice, their operation is not completely understandable. The implementation of these practices is clearly not an exclusive problem of the analyzed commerce centers and their commercialization strategies. In Mexico, authorities create, develop, and launch all kinds of measures trying to control an economic system in which their members reinvent and modify themselves in the face of any imposition. At this point, it is necessary to reduce the weight of the legal-illegal distinction, making way to the discussion on the importance of the economic decisions taken from the perspective of an economic agent immerse in social structures that condition them. The existence of networks that support and sustain the implementation of these practices for the informal dissemination of elusion and evasion ways is an important link within these practices since it eases decision making despite the risks. They determine the participation degree of social subjects in the market, creating social structures and institutional-type agreements that are modified or transgressed depending on their objectives.

The predominant speech in the government apparatus emphasizes innovation and legal and formal entrepreneurship. It stresses the notion of informality on its transgressing and illegal character. Nevertheless, entrepreneurs coming from informality infringing established norms are examples of how arrangements and

businesses based on trust of the social group members as a method of exchange, agreement, and payment still prevail. These are forms and networks that survive in a great part of the Mexican commercial outline.

6. Effects of COVID-19 sanitary emergency in textile commerce

On March 11th, 2020, the World Health Organization (WHO) qualified the Covid-19 virus outbreak as a pandemic. Such declaration allowed us to understand the worldwide sanitary emergency, and the imminent global economic recession caused by its effects (Gostin, 2020). One of the most affected sectors by self-isolation measures, quarantine, and social distancing was wholesale textile commerce, due to buyer's inability to attend to textile businesses that are the basis of this investigation. The pandemic also accelerated the crisis in the textile sector, already hit by the influx of contraband and unfair trade practices.

Derived from the virus propagation and the high contagion by contact rates, and considering the arrival of thousands of wholesale buyers, authorities and textile goods manufacturers had to organize themselves to take the necessary measures and reactivate commerce. However, their efforts have not been enough and during the second semester of 2020, thousands of businesses closed for good. During the first phase of the contingency, the industry was not considered a priority, so the government forced the total closure of activities that resulted in the loss of thousands of jobs for the sector. The flow of money was affected by the lack of sales and the payment of commitments. After the restart of activities, the textile plants must still work with a capacity of 30 percent. As a strategy, some textile retailers are employing tactics such as shipping goods free and at very low prices to encourage consumers to buy online, which greatly increases informality and the payment of taxes. However, while online shopping remains a viable option, with rising unemployment, loss of income and growing uncertainty, many consumers may no longer consider buying new clothes (OIT, 2020).

7. Final considerations

The lack of studies that approximate the magnitude of tax collecting potential and, therefore, the scope of tax evasion, is probably one of the most important challenges for tax authorities (Álvarez, 2009, p. 29). In the last years, there have been serious attempts to renew and propose new informality analysis approaches.

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However, the obstacle of obtaining reliable and real information on the impact this phenomenon has on nowadays economies is one of their main challenges. The strategies that social subjects follow in analyzed commercial spaces generate debate on the established by Portes & Haller (2004, pp. 10-12), for whom more than an “informal sector” it is a whole “informal economy”, which “is not so much of an individual condition, but an income generation process characterized by a central trait: it is not regulated by society institutions in a legal and social environment in which similar activities are regulated”. Informality is a phenomenon that is under the auspices of a legal frame that has not managed to absorb or solve generated problems and, despite multiple efforts by authorities, continues growing. Informal activities are regulated, allowed, and concealed by social and political institutions in the face of their impossibility to fully understand them. Such entities deny and criticize them, while they tolerate and reproduce them. It is through these interactions that the first paradox of informal economy is revealed: “the more it approaches a “true market” model, the more it depends on social links for its effective operation”.

In the performed study we found that important efforts have been consummated to increase collection levels from micro and small companies in Mexico. Statistics reflect that, to cover financial needs, governments put more pressure on this sector and on individual taxpayers (Inzunza and Sánchez-Díaz, 2013). However, concurring with Gómez-Sabañi (2012): “Not all small companies are informal, nor all informal companies are small”. An efficient collection policy must consider complexities and challenges faced by companies, as well as social networks built by merchants to economically survive. Although there have been serious efforts to attract “non-formal taxpayers”, the first step would be to design a tax payment system with perks so those who are in informality see joining the formal sector as an alternative. A system that includes regulation simplification and process corruption reduction.

Tax authorities must work on a real and effective tax system reform, in which simplification is a priority and tax payment facilitation are tangible and affordable, without so many special systems that generate confusion and lack of equity (Gutiérrez-Moreno, 2012, p. 94). We think evasion as a crime must be eliminated, supported by information schemes and financial education that allow the informal merchant to analyze the real cost-benefit of taxing in the formal system (Inzunza & Sánchez-Díaz, 2013). Reforms to tax policy have been established

on several occasions, thinking only of and about collection, but never in terms of an efficient implementation of public expense. Also, it is a problem that tends to be analyzed from an economic and legal perspective, without understanding the close connection with the social, cultural, and sense of survival aspects of those who are in informality. A reform to tax structure should be integral; it cannot be limited to solely the modification of tax rates (Ramírez Cedillo, 2007). In addition, it is vital to try to understand the complexity of the tax system consistently (Álvarez, 2009, p. 52) as well as the domestic commercial system, with the aim of proposing an integral reform that strengthens the contributory capability of the social subjects with reactivating economy through consumption, production incentives, and improving work conditions for reinsertion to formal economy of those who are outside what is legally established in mind.

Informality represents a fundamental criticism to government operation; whether by scarce control, complex regulations, lack of an appropriate taxpayers training, or inefficient public policies to achieve an effective job market insertion of informal workers, it is evident that responsible authorities do not understand the phenomenon complexity; therefore, policies have been proven to be ineffective. The performed analysis also allowed to determine that one of the main problems is the citizens' lack of tax culture. Wide population sectors lack the necessary knowledge, media information, or real benefits to move into formality (Gómez-González, 2015, p. 76). The post COVID scenario for the industry in the country is still uncertain. The impact of the supply chain, production and trade presents figures and data to be analyzed in subsequent investigations. However, it is important to stress the need to move to a different trade model to reactivate the industry. One of the challenges is presented in one of the main objectives of analysis that gave rise to this research, a scheme for the efficient collection of taxes to direct their incentives towards the investment of public services.

In Mexico, informality is the result of a combination of legal and formal strategies that play with its informal and legal counterpart. The problem becomes more complex by not considering the relationship conditions that allow it to operate in official statistics. We should add the little availability of homogeneous job information, its little reliability, and the difficulties to access important data. We emphasize that a focus that considers heterogeneity and cultural matter of the causes of informality, as well as the consideration to evolve to data collection proposals that uncover diverse observation and analysis perspectives, is required.

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FORECASTING THE NUMBER OF COVID-19 PATIENTS IN TURKEY USING NONLINEAR AUTOREGRESSIVE NEURAL NETWORKS

Tuncer Özdiş, Mehmet Dinç

Abstract

The coronavirus has been raiding the world since the late 2019, leading the World Health Organization to declare a pandemic by the early months of 2020. For the last one and a half years, the whole world has been in an intense fight against multifaceted effects of the global pandemic. The economic, societal, psychological and health related implications of the pandemic have been equally disruptive for Turkey, as is the case for the rest of the world. Even though the arrival of alternative vaccines has triggered waves of optimism and hope especially in such parts of the world where intensive vaccination programs have been implemented, the virus still lurks around with its new variants and expectations about yet another wave in the horizon. In this context, the purpose of the current study is to identify a prediction model for the number of Covid-19 patients in Turkey based on daily positive case numbers during the post-vaccination period. According to findings of the study using Non-Linear Autoregressive Neural Network based on a monthly estimation model, there is a decreasing trend for the number of cases in post-vaccination period albeit some fluctuations in the overall trend.

Keywords: Covid-19, Forecasting, Non-Linear Autoregressive Neural Network

1. Introduction

The Covid-19 virus, which emerged at the end of 2019, spread rapidly all over the world and the World Health Organization declared a pandemic on February 3rd, 2020. In this context, an intense and effective fight against the pandemic

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has been going on for about 1.5 years in our country, as is the case in the rest of the world. As with every pandemic in human history, the Covid-19 pandemic has had psychological, societal, cultural and economic consequences. As a natural result of its negative repercussions, people have been adversely affected by the pandemic and millions of people have lost their lives. In our country, the fight against the Covid-19 pandemic has deeply affected the whole society in terms of health, economy, social and psychological aspects, and it continues to do so. In addition to the economic and psychological losses, as of May 2021, the total number of tests reached approximately 57,000,000, while the number of positive cases reached 5,330,000, and a total of 48,721 people died (Republic of Turkey Ministry of Health, 2021).

As in the world, the expectation of all segments in our country is that the pandemic will no longer be a risk. According to the Turkey risk map determined by the ratio of the number of positive cases to the total population determined by the Ministry of Health of the Republic of Turkey, the number of positive cases below 10 per 100,000 is evaluated as low risk, between 11-35 as medium, between 36-100 as high, and over 100 as very high risk. Therefore, in addition to the intense fight against the pandemic, the arrival of the vaccine and the implementation of an intensive vaccination program are undoubtedly promising in minimizing the risk and getting rid of bans and restrictions. In this context, considering that the population of our country is 83,614,362 as of 2020, if the number of positive cases ($83,614,362 \times 0,00001 = 836,14362 = 837$) falls to around 837-1,000, the pandemic may cease to be a risk for the society (Republic of Turkey Ministry of Health, 2021).

In this study, the number of Covid-19 positive patients in Turkey is considered to identify an estimation model by using Nonlinear Autoregressive Neural Network based on daily positive cases within the post-vaccination period. According to the estimation results consisting of 30 data obtained from the model, a promising forecasting model is obtained with a decreasing trend albeit fluctuations.

2. Literature Review

It is seen that the number of deaths in the Covid-19 epidemic, which was declared as a universal pandemic by the World Health Organization and whose epidemiological characteristics could not be fully defined, exceeded 2 million as of May

1st, 2020. For this reason, a forecasting model to be developed for the Covid-19 outbreak has proven itself to be a critical issue. In one study, Saba and Elsheikh (2020) propose statistical and artificial intelligence-based methods to estimate the prevalence of the Covid-19 epidemic in Egypt. In line with this recommendation, Autoregressive Integrated Moving Average and Nonlinear Autoregressive Artificial Neural Networks models were used. The data set of the study was obtained from the Egyptian Ministry of Health. For this purpose, data spanning the period between March 1st and May 1st, 2020 were used. The performance of the models was measured according to Mean Absolute Error, Root Mean Squared Error, Coefficient of Determination, Deviation Ratio and Coefficient of Residual Mass. In accordance with the statistical criteria used to compare the method, it was seen that the Nonlinear Autoregressive Artificial Neural Networks model had a better performance than the Autoregressive Integrated Moving Average model. According to the model, the number of Covid-19 cases is expected to increase by 208% during May 2020. This proposed forecasting model can be used to make multi-step forecasts for the upcoming period.

The Covid-19 pandemic has severely affected almost the entire world. It has revealed the need to develop an effective decision-making tool in order to raise awareness of the spread of Covid-19 among the public. Accurate and reliable forecast of the number of cases due to Covid-19, the number of recovered cases and the number of cases resulting in death are needed, especially in the process of controlling the epidemic by health institutions. Namasudra, Dhamodharavadhani & Rathipriya (2020) used Nonlinear Autoregressive Neural Network Time Series to address this need by creating a prediction model. In order to evaluate the effectiveness of the proposed methodology in the study, Covid-19 data belonging to India were used. The time interval is a time series data determined from January to August 2020. The data set includes the cumulative number of confirmed cases, the number of recovered cases and the number of cases with death. In their Nonlinear Autoregressive Neural Network Time Series model, the authors use some training algorithms as Scaled Conjugate Gradient, Levenberg Marquardt and Bayesian Regularization algorithms. Root Mean Square Error, Mean Square Error and correlation coefficient were preferred as the performance evaluation criteria of the proposed estimation model incorporating various parameters including the number of hidden layers, delays, training algorithms and neurons of the network architecture. As a result of the trials, it was concluded that the model with the learning algorithm Levenberg Marquardt outperformed the Covid-19

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epidemiological prediction. In this context, it is thought that this model and its results will help the government decision-making process.

The disease, which started with the reporting of pneumonia cases that emerged in the city of Wuhan, China on December 31st, 2019 by the World Health Organization and whose etiology was not known, and which was later expressed as Covid-19, is an epidemic that affects the whole world. In their study, Kırbaş, Sözen, Tuncer & Kazancıoğlu (2020) provide forecasting models for the Covid-19 outbreak. Unlike other studies, all cases with Covid-19 infection were forecasted with Auto-Regressive Integrated Moving Average, Nonlinear Autoregression Neural Network and Long-Short Term Memory models. Within the scope of the research, confirmed Covid-19 case numbers of Denmark, Belgium, France, Germany, England, Finland, Switzerland and Turkey were used. Case numbers were obtained from the European Center for Disease Prevention and Control. Mean Squared Error, Peak Signal-to-Noise Ratio, Root-Mean-Square Error, Normalized Root-Mean-Square Error, Mean Absolute Percentage Error and Symmetric Mean Absolute Percentage Error were used as performance evaluation criteria. According to the results obtained as a result of the study, it is seen that the Long-Short Term Memory approach provides better results than the other two approaches.

The Covid-19 epidemic has affected the energy sector as well as many other sectors in a short time, almost all over the world. Along with the pandemic, energy companies in many parts of the world have focused their attention on the functioning of their infrastructure. In a study by Sözen, İzgeç, Kırbaş, Kazancıoğlu & Tuncer (2021), the energy situation in developing Turkey was analyzed in general due to Covid-19, and the situation of the energy market and electricity demand as a global problem was sought to be investigated. For this purpose, machine learning approaches were preferred, and energy demand and production values were tried to be modeled. The methods to be used in the estimation are Nonlinear Autoregression Neural Network, Auto-Regressive Integrated Moving Average and Long-Short Term Memory, long-term forecasting of electricity produced from natural gas and coal, and short-term estimation of daily electricity demand.. The data set used in the forecasting modeling consists of the daily electrical energy demand received from the Turkish Energy Exchange (EPİAŞ) and the monthly generated electricity values. Forecast models created within the scope of the study were evaluated with a total of 6 different criteria: Mean Squared Error, Mean Absolute Percentage Error, Symmetric Mean Absolute Percentage Error,

Root-Mean-Square Error, Normalized Root-Mean-Square Error and Peak Signal-to-Noise Ratio. It is important in terms of energy resource planning that electricity production is at a level that meets the demand. Therefore, this study offers numerical-based solutions for the energy sector during the pandemic process

The Covid-19 pandemic spread to Europe on approximately February 24 and continues as of March 26. A report published on 29 April includes 1.26 million confirmed positive cases and 125928 deaths in Europe. In order to see the course of the epidemic in Covid-19 epidemic forecasting models, artificial intelligence prediction models based on mathematical or black box algorithms are generally used. Huang, Shen, Kuo & Chen (2020) propose a new deep neural network model for the forecasting of the Covid-19 epidemic in this study. This model is recommended as The Covid-19Net 1D convolutional neural network, 2D convolutional neural network, and bidirectional gated recurrent units. COVID-19Net can well integrate the characteristics of time, space, and influencing factors of the COVID-19 accumulative cases. Within the scope of the study, a select set of European countries including Germany, Spain and Italy where the Covid-19 epidemic is very severe were examined. The data set used in the study was obtained from the daily status reports published by the World Health Organization and from the GitHub website. Within the scope of the research, 98 days of data covering the dates of between January 22nd and April 28th were collected. While the first 83 days of data belonging to this data set were reserved for the training set, 10 days of daily data were used in the testing phase. The data set is divided into two parts. The first part consists of six characteristic factors from all three countries. These are daily new confirmed cases, deaths, recovered cases, accumulated confirmed cases, and recovered cases. The second part consists of the cumulative confirmed case numbers of the three countries. This hybrid architecture, proposed as Covid-19NET, estimates the total number of confirmed cases for the next day. The performance evaluation of the created model was made according to the Mean Absolute Error, Mean Absolute Percentage Error and Root-Mean-Square Error criteria. With this proposed study, it provides the opportunity to determine public health strategies against the Covid-19 epidemic, to better allocate hospital resources and to be used as a reference in the production planning processes of enterprises. The results of this study not only serves as an important reference for designing public health strategies against COVID-19, but it also allows to improve the allocation of hospital resources, while also providing a reference for businesses to develop production plans and response plans during the

pandemic. Especially from the point of view of businesses, it will help them to catch various opportunities in this difficult struggle. In line with the six factors discussed in the study, it can also be used as an evaluation tool on whether governments have taken adequate measures to prevent the pandemic.

3. Material and Method

3.1. Data Set Used in the Research

In the study, daily case numbers between 12.02.2021 and 31.05.2021 in the post-vaccination period in Turkey were taken from the Ministry of Health Covid-19 Information Platform of the Republic of Turkey. According to the proposed model, 70% of the data was used for training, 15% for validation and the remaining 15% for testing. Descriptive statistics for the data set are given in Table 1.

Table 1: Descriptive Statistics

Mean	24159,57
Median	15136,50,6287
Minimum	6287
Maximum	63082
Std. Deviation	17866,31
Skewness	0,8571
Kurtosis	2,3525
Jarque-Bera	15,6719
p-value	0,000395

It is seen that the skewness coefficient value in Table 1 is 0.857190 and different from zero. Therefore, there is a right-skewed distribution. It is seen in the table that the kurtosis coefficient value known as kurtosis is 2.352555. According to this value, it can be interpreted that the distribution has a pointed or steep structure. The normality test of the distribution of the data set was done with the Jarque- Bera test. Since the p value of the test (0.000395) is less than 0.05, it is concluded that the distribution is not normal.

The data graph regarding the daily number of Covid-19 cases in Turkey used within the scope of the study is given in Figure 1.

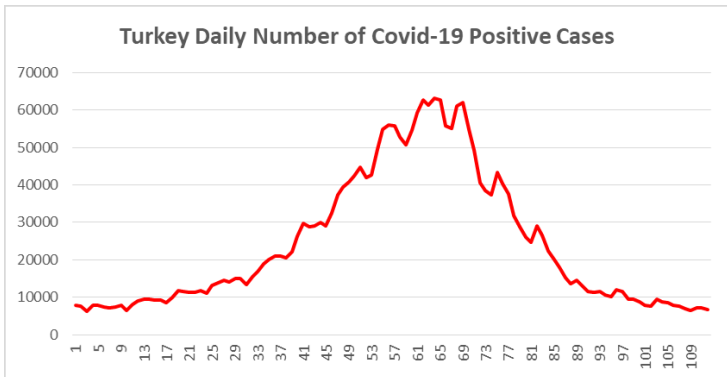


Figure 1: Turkey Daily Number of Covid-19 Positive Cases

As can be seen from the graph, after reaching the maximum level of 60,000, which increased before the data fluctuated over time, there is a decreasing course probably as a result of vaccination and implementation of full closure policies to fight the pandemic.

3.2. Forecasting Model: Nonlinear Autoregressive Neural Network

Forecasting is an important topic for its users that has been researched for centuries. If the data of the time series is linear, forecasting methods called classical or traditional provide convenience to the forecast user in the practice and interpretation phase. However, classical forecasting methods are not sufficient because the structure of the data belonging to daily world problems does not usually have a linear structure (Chatfield, 1993, pp. 1-3). This deficiency can be overcome by the artificial neural networks technique, which is a computer system that has the ability of the human brain to learn and make inferences based on the information it has learned. This method, which can work with numerical data, is one of the artificial intelligence-based methods that is non-linear and often preferred when mathematical modeling is difficult or impossible. In addition, in the artificial neural network method, which has the ability to work with missing data, there is no limiting situation such as providing various assumptions such as the normal distribution condition of the series, as in classical estimation methods (Maind & Wankar, 2014, p. 100).

Artificial neural networks method is divided into many types in itself. According to the distinction made according to the learning time as static and dynamic

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learning, the Nonlinear Autoregressive Neural Network Model to be used in the application is based on dynamic learning.

Nonlinear Autoregressive Neural Network is a type of dynamic neural network used to forecast the future period based on the available time series data. This method, which is generally used in non-linear time series data, is formed by training the variables depending on time delays. The mathematical representation of the Nonlinear Autoregressive Neural Network is given in equations 1 and 2 (He ve Jin,2018, p. 1325):

$$y_t = f(y_{t-1}, y_{t-2}, \dots, y_{t-p}) + \varepsilon_t \quad (1)$$

$$y_t = \alpha_0 + \sum_{j=1}^k \alpha_j \phi(\sum_{i=1}^a \beta_{ij} y_{t-i} + \beta_{0j}) + \varepsilon_t \quad (2)$$

The mathematical notation in equation 1 means that the forecast of period t is based on past period data. In the general mathematical representation of the Nonlinear Autoregressive Neural Network in equation 2, α_0 is the constant coefficient, k is the number of hidden layers, α_j corresponds to the weight coefficient value between the hidden unit and the output unit, ϕ is the activation function, a coefficient corresponds to the number of inputs, β_{ij} is the weight values between the input and the hidden layer, and β_{0j} corresponds to the constant coefficient value.

The training process of the Nonlinear Autoregressive Neural Network used in this study was carried out in open loop mode. The parameter values of the open loop network structure, which gives minimum errors with the training of the network, have been converted into a closed loop network structure to be used as the initial input value. Based on this network structure, forecast values for the future were obtained (Benrhmach, Namir & Bouyaghroumni, 2020, pp.1-3; Galushkin,2007, pp. 121-122).

4. Forecast Model Design and Future Period Forecast

In this study, the forecasting model was created using the R2020a licensed version of MATLAB. By changing the input layer, delay number, hidden layer and neuron numbers of the forecasting model, the forecasting model that gives the best result has been investigated. The designed estimation models were evaluated with the Root Mean Squared Error (RMSE) criterion. The mathematical representation of the RMSE criterion is given in Equation 3. The letter “e” in the related equation represents the difference between the actual value and the forecast value.

$$RMSE = \sqrt{\frac{\sum_{i=1}^n e_i^2}{n}} \quad (3)$$

The forecasting models and performance values obtained as a result of trial and error using Nonlinear Autoregressive Neural Network are given in Table 2. According to the relevant table, the best forecasting model belongs to Model 13 with 14 delays, 1 hidden layers, and 10 hidden neurons. The RMSE value of Model 13 was found to be 1291.16.

Table 2: Nonlinear Autoregressive Neural Network Performance Values

	Input Layer	Hidden Layer	Performance Criteria			
MODEL	Number of Delays	Number of Hidden Neurons	Training-R	Validation-R	Test-R	Network Performance (RMSE)
1	2	2	0.9803	0.9449	0.9015	2332.2
2	3	4	0.9772	0.9420	0.7896	2209.5
3	4	7	0.9755	0.9579	0.8498	2360.7
4	5	8	0.9842	0.9539	0.8364	2058.3
5	6	10	0.9797	0.9626	0.8002	2208
6	7	10	0.9722	0.9520	0.9492	1692.1
7	8	7	0.9631	0.9687	0.9464	1753.2
8	9	3	0.9657	0.9657	0.9279	1502.8
9	10	10	0.9664	0.9789	0.9528	1744.4
10	11	8	0.9708	0.9864	0.9219	1347.7
11	12	4	0.9646	0.9886	0.9436	1709
12	13	8	0.9712	0.9819	0.9327	1534.1
13	14	10	0.9986	0.9920	0.9932	1291.16

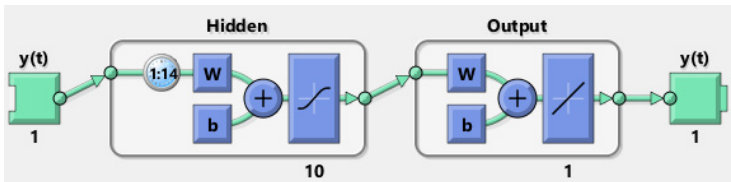


Figure 2: Open-Loop Mode Nonlinear Autoregressive Neural Network Structure

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The open loop structure of the NAR neural network is shown in Figure 2. The loop structure is converted to closed mode in order to use the parameter values of the open-loop network structure as the initial value and to obtain predictive values for the future. The visual of the closed loop network structure is given in Figure 3.

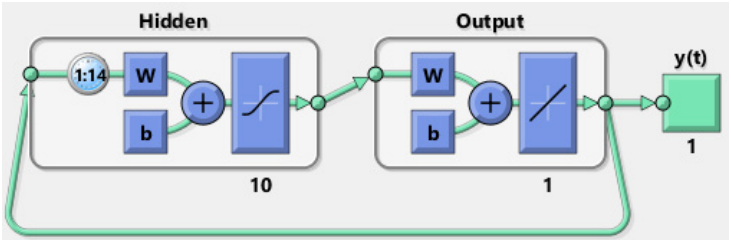


Figure 3: Closed-Loop Mode Nonlinear Autoregressive Neural Network Structure

The forecast values of the 30-day number of cases obtained from the forecast model with the best performance value determined are given in Table 3. Based on the relevant table, the graphic representation of the number of cases is given in Figure 4.

Table 3: Forecast Values

Date	Forecast	Date	Forecast	Date	Forecast
01.06.2021	6812	11.06.2021	4542	21.06.2021	4010
02.06.2021	6345	12.06.2021	4220	22.06.2021	3384
03.06.2021	6111	13.06.2021	4457	23.06.2021	4320
04.06.2021	5131	14.06.2021	3952	24.06.2021	3480
05.06.2021	5472	15.06.2021	4406	25.06.2021	4264
06.06.2021	5095	16.06.2021	4106	26.06.2021	3259
07.06.2021	5193	17.06.2021	4448	27.06.2021	4350
08.06.2021	5102	18.06.2021	3717	28.06.2021	2932
09.06.2021	5377	19.06.2021	4294	29.06.2021	4363
10.06.2021	4755	20.06.2021	3590	30.06.2021	2988

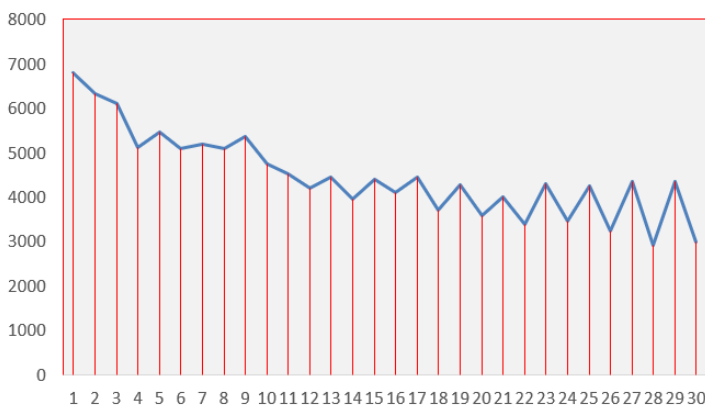


Figure 4: Forecast Value of Cases

5. Result

Fighting against a global pandemic has never been an easy task for humanity. As in the pandemic periods that took place in the past, all countries are in an intense struggle in the Covid-19 pandemic that we live in now. During the 1.5-year period that the Covid-19 epidemic was effective, it affected societies in three waves with ups and downs, causing heavy economic, social and life losses. Unfortunately, like other countries, our country has been adversely affected by the Covid-19 pandemic and continues to be affected. As in the whole world, the days when the Covid-19 pandemic will cease to be a risk are eagerly awaited in our country

In the Covid-19 risk study prepared by the Ministry of Health of the Republic of Turkey in our country, rates less than 10 per hundred thousand are considered as low risk and risk-free, according to the rates obtained by dividing the number of positive cases to the total population. In this context, considering that the population of our country is 83,614,362 as of 2020, the days when the daily positive case numbers will approach around 1000 are eagerly expected. In this struggle, it is very pleasing that intensive vaccination studies continue as well as isolation and hygiene-based closure-restriction policies.

In this study, daily positive case numbers in our country in the post-vaccination period were modeled with nonlinear autoregressive neural networks. Neural

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network forecasting models based on artificial intelligence learn the pattern on real data with simulations, verify this in test data and propose the most reliable model.

In this model, a forecasting series consisting of 30 observations was obtained according to the model results obtained by using 70% of the data for learning, 15% for validation, and 15% for testing. According to the forecasting results, a descending trend series with ups and downs was obtained. In the obtained series, the number of positive cases, which was around 7,000 at the beginning, decreased to around 3,000 at the end of the period. Although we stay far away from the 1,000s, where the risk is zero, we must state that a promising result has been achieved.

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HOW INNOVATIVE CAN GOVERNMENT BE THROUGH THE USE OF ICT? THE CASE STUDY OF AZERBAIJAN

Hakim Alasgarov

Abstract

The purpose of this article is public administration reform and particularly, to look at the evolution of the OSS model of public service delivery in Azerbaijan. This article attempts to analyse its effectiveness and efficiency in terms of user-friendliness, transparency and timeliness. In particular, the article reports on a case article of a one-stop-shop model portrayed in the form of State Agency for Public Service and Social Innovations (SAPSSI) and “ASAN service” centres. It studies the case of the one-stop-shop (OSS) public service delivery model in Azerbaijan in the context of the ASAN services. Several public services are provided in a single building rather than different government offices in a business-like style of service delivery and in a modern physical environment. The article also attempts to answer whether the “one-stop-shop” model is efficient to deliver public services in a customer-friendly, transparent and timely manner. Moreover, the paper touches policy transfer, the role of international organisations on public administration reforms. This article focuses on the case of Azerbaijan as a unique and recent example for observing the evolution of public administration reform from the starting place of the unsuccessful state to a state which embraced and implemented the revolutionary public service delivery reform. The radical changes in public administrative management system brought by the Government of Azerbaijan in 2012 invite detailed analysis of public administration reform and the role of OSS in the reform. The article is based on a number of sources, including online and published a governmental document. The article finds that the reform succeeded in replacing the extractive model of the public service delivery with the most wide-ranging model of one-stop-shop. The “ASAN service” successfully provides customers with public services. Results of surveys demonstrate

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that citizens are highly contented with the speed, quality and user pleasantness of public service delivery. The article is a product of interrelated steps and is designed to serve as an analytical paper for developing reforms that address issues in public service delivery. The article only relies on secondary data. Secondary data are those which have already been gathered and analysed by other researchers through the analytical process.

Keywords: One-stop-shop, public service delivery, public administration, governance, customer, citizen, government, data, management, reform.

1. Introduction

Over the past decades, the case of public service delivery and introduction of one-stop-shop have been increasingly studied and debated. Governments throughout the world have been keen to demonstrate that they are engaged in improving the services for which they are responsible. Pressure has come from citizens with heightened expectations of what they should receive or who are annoyed from the poor quality of what governments offer. Following the directions of developed countries and under pressure levied by the international donor agencies, Azerbaijan and as well as a number of transitional countries have been trying to redesign their public administrative systems along the approaches to New Public Management (NPM).

Likewise, civil society and business organisations have also added their voices to those of the citizens while politicians, incumbent and aspiring, have recognised the necessity of promising better government service delivery if they are to avoid disaffection, unrest and removal from office. Scholars and practitioners of public administration reforms agree that the reforms deliver many benefits but also create significant problems.

However, as this article also argues, the introduction of “ASAN service” delivery was not able to implement in-depth changes in the work of the other level sphere of public administration. Implementation of the managerial ideas has been limited and constrained by the institutional framework and culture prevailing in the Azerbaijani bureaucracy.

2. Policy Transfer

The work of Dolowitz and Marsh (1996, 2000) is considered as a milestone of the concept policy transfer (Benson & Jordan, 2011, p. 368). Particularly this process generated from the comparative policy analysis in the 1960s when in the US some authors started to discuss policy innovations among the states.

Cross-national involvement is having an increasingly significant impact on decision-makers within the private, public and civil society sector of nation-states. Specifically, 'policy transfer' and 'lesson-drawing' is a dynamic whereby knowledge about policies, administrative arrangements or institutions is used across time or space in the development of policies, administrative arrangements and establishments worldwide (Stone, 2011). Before the created new term Dolowitz and Marsh (1996) in order to describe the process was used the terms such as "policy diffusion" (Walker, 1969) "policy convergence" (Bennet, 1991), "policy band-wagoning" (Ikenberry, 1990), "policy borrowing" (Cox, 1999), "policy shopping" (Freeman, 1999), systematically pinching ideas (Schneider & Ingram, 1988), lesson drawing (Rose, 1991) that convey a sense of transfer being a voluntarist activity. All those words predominantly are still used as a potential synonym for the policy transfer respectively.

Expressions such as 'exporting ideas' or 'policy pusher' (Nedley, 1999) are similarly used in this context too (Stone, 2001). International policy groups of experts and professionals that share their expertise and information and form common shapes of understanding regarding policy through systematic collaboration are the most common method of policy transfer. According to the Clark (1985, p. 65), initial critiques of this approach were that they do not present suitable tools for policy transfer. More commonly they describe rational and voluntary choices (Bulmer *et al.*, 2007, p. 13). Dolowitz and Marsh (1996), refines these terms and suggest a new and one named policy transfer. Policy transfer for them is an "a process by which knowledge of policies, administrative arrangements, institutions, and ideas in one political system" is used to develop the same features in another country and it encompasses "voluntary" and "coercive" forms (Dolowitz, 2000, p. 3). Oblinger *et al.* (2003, p. 112) summarising the main difference of policy transfer from other concepts mention that first policy transfer is a more international process and second it is frequently used in case article welfare literature.

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Stone (2001, pp. 17-30) originally mentioned 5 types of soft' forms of transfer and policy entrepreneurship (Carriers, Exporters and Inducers of Policy Ideas) undertaken by: "Transfer Networks and Knowledge Producers", "Think tanks", "Consultancy", "Foundations", and "Universities, scholars and 'invisible colleges'". According to Dolowitz and Marsh, (1996, p. 345) six types of actors involved in the policy transfer process: "elected officials", "political parties", "bureaucratic/ civil servants", "pressure groups", "policy entrepreneurs/experts"; and supranational institutions".

3. Transferring public administration policy

The establishment of International Public Service Unit (IPSU) attached to British Cabinet in 1996 played one of the key roles and helps to promote and export UK expertise in public sector reform and public administration (Stone, 2001, p18). At the moment, regional and international organisations such as the EU, UN, USAID, IMF and the World Bank are key players in the social and public policy exchange process from the western developed countries to developing countries (Oblinger *at al.*, 2013, p. 112). Their role in the formulation of Azerbaijan's public sector and administration system will be discussed in detail in the next sections.

In order to deal with the problems raised after the collapse of USSR, priority has turned to the western countries for financial and institutional support (Midgley, 1997, pp. 84-85). The leading international actors such as EU, World Bank, UN, USAID, Council of Europe and some other western countries were involved in post-communist public administration reforms., according to the Midgley (1997), support of these actors is also accompanied with conflicts and opposite policy emphasis and directions advocated by these organisations.

The European Union

The EU's policy and cooperation goals about the countries in Eastern Europe and Central Asia are based on the establishment of a relationship in which respect for democratic principles and human rights and the transition towards market economy are fostered (EC, 2003). Two of the first programmers of EU are PHARE (Poland and Hungary: Assistance for Restructuring their Economies) and TACIS (Technical Assistance to the Commonwealth of Independent States).

The PHARE programme is one of the three pre-accession instruments financed by the EU to assist the applicant countries of Central and Eastern Europe in their preparations for joining the European Union (European Parliament, 1998). The main social aspects of this assistance programme included labour market policies, training of civil servants, and social security and social assistance agreements. TACIS programme was launched in 1991 in the same track as PHARE but mainly focusing on 12 post-Soviet countries and plus (Deacon, 1997, pp. 97-98).

World Bank

World Bank engagement in Azerbaijan at the country level focused on areas which had government support. Some modest results have been achieved, even though in many cases modern laws and practices were adopted without adequate plans for implementation. At the project level, the Bank has supported the strengthening of project implementation units (PIUs) and tools for monitoring, and governance and institutional filters have signalled that Governance and Anticorruption (GAC) processes need to be embedded in the World Bank projects. It was substantially relevant to public financial management, and private sector development and procurement. World Bank engagement was moderately relevant in decentralisation, civil service reform, and accountability institutions (Independent Evaluation Group, 2011).

4. One stop shop in public service delivery

One-stop service shops (OSSs) for government services delivery have become a popular and flexible mode of administrative decentralisation for delivering government services of various types throughout the world (Turner, 2012, p. 198). The term “OSS” is defined the provision of services and information of different government bodies through one location (Hagen & Kubicek, 2000). According to Stone, A. (2006), one-stop shops are one of the several institutional substitutes governments often adopt to bypass or accelerate existing procedures where they are dysfunctional. The one-stop-shop environment promotes the seamless aggregation of government services endeavouring to make government more efficient (Blackburn, 2016). Wettenhall and Kimber (1997) mention four reasons for the establishment of “one-stop-shop” service delivery model in Australia in 1970. The government announced the service to “ease poor people’s access to welfare service providers, knowing that it was poor people who had the greatest difficulties

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in contacting the right administrator for their specific problems; to shift the forms of referral and decision making closer to clients; to improve coordination between officials and to provide guidance to policymakers and administrators.” Even though the reform had an explicit determination the government failed to fully implement it. Though, today it is being advanced into a popular model for the next generation of reforms (Wettenhall & Kimber, 1997).

4. 1 New Shapes of Public Administration and Public Services

According to Hood (1989) and Pollitt (1993), New Public Management (NPM) as a term coined in the late 1980s to indicate a new stress on the importance of management and ‘production engineering’ in public service delivery often linked to principles of the market-based approach. Sarker and Pathak (2000, p, 57) later argue that NPM emerged in response to several environmental forces which governments everywhere have faced in the last two decades.

New Public Management (NPM) as a topical phrase describes how management techniques from the private sector are now being applied to public services (Lane, 2000).

This administrative doctrine has been dominating the public administration reform agenda of most OECD countries from the late 1970s (Ridley, 1996, pp. 16-29). NPM shifts the emphasis from traditional public administration to public management (Lane, 1994) and also pushes the state toward managerialism (Clarke & Newman, 1997). NPM has got many various features which vary them from the traditional one. Traditional public administration across the world failed to take cognizance of some vital environmental forces in spite of its tremendous appeal (Islam, 2015) (Table 1). The traditional typical of organisation and delivery of public services, based on the principles of bureaucratic hierarchy, planning, centralisation, direct control and self-sufficiency, is being replaced by a market-based public service management (Flynn 1993), or enterprise culture (Mascarenhas, 1993). Osborn and Gaebler (1992) believe that there is a tremendous difference between government and business institutions. They argue that business leaders’ main motivation is to make the profit while government leaders’ main motivation is to get re-elected. The business receives money from customers while governments receive money from taxpayers. Competition drives business while governments usually use monopolies. These differences create fundamentally different

incentives in the public sector, thus, facilitating the evolution of NPM as a new paradigm in the public sector (Osborn & Gaebler, 1992).

One of the main anxiety in such lessons goes to elements of unequal treatment and of access of disadvantaged groups to public services and associated non-take-up or nonrecourse. The notions underlying NPM-style reforms have also been claimed for dysfunctional effects on the more open policy and on responsiveness to citizens. One key cause for this change is the changing role of professionals in the public sector. Professionals have come under increasing pressure through the use of protocols and targets (Ferlie, 1996, pp. 165-194; Broadbent and Laughlin, 2002, p. 98), even in those public services where individual discretion rather than standardisation is crucial (Savoie, 1995).

One of the significant recommendations of the NPM-movement was to disaggregate large, multifunctional public bodies and replace them with a series of single-purpose bodies. This disaggregation extended to living off public tasks to the private and not-for-profit sector. (Hammerschmid & Walle, 2011). The idea was that a deliberate fragmentation and distribution of functions would effect in clear lines of governing and limits and possibly to competition between these new public entities. Besides, performance was to be supervised using specific and detailed sets of performance indicators and targets (van Thiel & Leeuw, 2002).

Disaggregation and a related increase in accountability and control systems focusing on relatively narrow objectives have, for public services and public managers, “narrowed the nature of the work, creating focus at the expense of coordination” (Norman, 2003, p. 200). Disaggregation became fragmentation at the detriment of institutional development, development of strategic capability and expertise, and institutional memory (Norman 2003; Pollitt 2000; Pollitt 2008 cited in Hammerschmid and Walle, 2011).

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*Info graph #1: Comparative assessment of traditional public administration and
New Public Management*

Elements	Traditional Administration	NPM
<ul style="list-style-type: none">• Government Organisation• Control of Public Organisations• Control of output measure• Management Practices• Discipline in Resources Use	<ul style="list-style-type: none">• Service Provided on a uniform basis operating in a single aggregated unit• Control through the hierarchy of unbroken supervision and checks and balances• Control on inputs and procedures• Due Process and poetical entitlements	<ul style="list-style-type: none">• Break-up of traditional structures into quasi-autonomioous units• Practices on professional management with clear statement of goal and performance measure• Stress Results and output control rather than procedures• Using Private sector Management style• Check resources demands and "do more with less"

Source: De Araújo, J. F. F. E. (2001).

According to Wettenhall and Kimber (1997, p. 463) “the concept of the first one-stop shop also known as North-West One-Stop Welfare or NOW, was so revolutionary to the traditional hierarchical administrative culture that it was closed down in the mid-1980s, but the idea survived. It can be found in other Australian one-stop shops, especially in local governments. Along with the new public management movement and its customer orientation concepts, there has been an international trend to install one-stop-shops with the purpose of improving customer access to the administration” (Wettenhall & Kimber, 1997, p. 463).

Due to the reforms to improve public administration service delivery and to reduce the distance between bureaucracy and individual citizens, one-stop-shop model has been implemented in several countries: New Zealand - Service Centers, Belgium: The Digital Signature Platform of Flanders Germany – Buergerbuero or citizens’ offices, also known One Stop Berlin, Hungary-Magyar Programme, Slovenia - Centre for e-Governance Development for South East Europe (CeGD), United Kingdom - User Centricity, Italy- ‘Linea Amica’ (the Friendly Lines), Canada, France – Maison Services Publique, Georgia- Public Service Hall (PSH) also

known as Justice House and the Community Centres (CC) and in 2012 in Azerbaijan (The Vision, 2015a, pp. 37-42).

4.2 Origin of Public Administration in Azerbaijan

Azerbaijan is a centralised country ruled by a presidential system. The structure of government administration is based on the principles of separation of powers among legislated, executives and judicial branches (UN report, 2014). In practices, the president and other executive bodies services full control over the judiciary and the Parliament. Likewise, their reach extends well beyond the capital city of Baku, as a regional centre are controlled by presidential appointees at the municipal level (Freedom House, 2010).

4.3 Administrative transformation process in Azerbaijan

The collapse of the Soviet Union in the early 1990s brought chaos and uncertainty in public administration and particularly in public service delivery. After a collapse of the USSR, post soviet countries including Azerbaijan has started to build public administration based on the principles of Weberian bureaucracy (Meyer-Sahling, 2009). This tendency occurred under the few circumstances and one of them was having a significant pressure from international organisation and requirements of market-based economy.

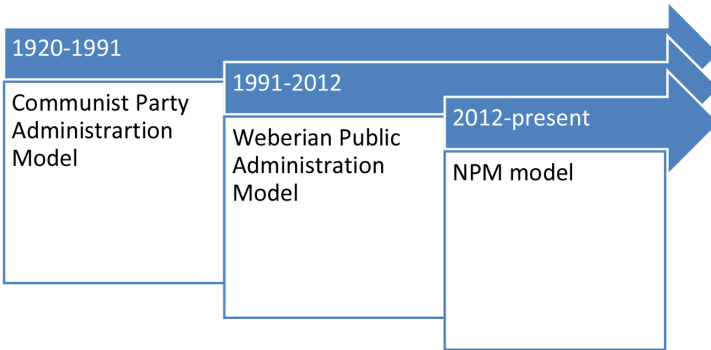
Nevertheless, Azerbaijan's public administration was prepared to accept those ideas neither morally nor practically. Since the NPM theory to existing social needs and catastrophe of traditional bureaucratic mode, thus one question whether NPM can be applied to the public sector in the countries where stable the traditional model is operating or maybe the traditional bureaucratic model is not prerequisite for NPM (Reinholde, 2006, p. 16).

Administrative change process based on NPM has foreseen introduction of private sector management techniques to the public sector. According to the Communist regime public administration, the main basic features were the limited private sector participation and lack of private property (Perry& Rainey, 1988). Therefore, Azerbaijan society and bureaucracy had not experienced of involvement of private sector. In such a situation, a precondition for the NPM theory - to evaluate methods to be transferred to public sector – cannot be fulfilled

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Info graph#2: Conceptual development of Azerbaijan’s public administration



Unlike some government bodies, international organisations, including UNDP, are very active in this sphere. For this purpose, UNDP has implemented the “Good Governance through civil service reforms: Implementing the MDG 9” project where the overall objective is to operationalise the commitment of the Government of Azerbaijan to “Good Governance” and public sector reform (Bayramov, 2010).

4. The State Agency for Public Service and Social Innovations (SAPSII)

The State Agency for Public Service and Social Innovations (SAPSII) under the President of the Republic of Azerbaijan was established by the Decree of the President of the Republic of Azerbaijan No.685 dated 13 July 2012. SAPSSI is the central body of executive power that, according to its direction of activities, will carry out the unified management of the “ASAN” service centres, as well as coordinate the functions of the employees of the state agencies to act at those centres, hold control and be responsible for assessment, carry out the mutual integration of databases of state agencies, accelerate the organisation of electronic services and improve the management system in this area (vsxida.gov, 2013)

Legal Framework and Organizational Structure

SAPSII is an independent in its activities and is guided by the constitution of Azerbaijan, taking into consideration of international treaties and agreements, regulations and other legal acts. As defined in the legislation, the main purpose

of SAPSII is to support activities of ASAN services, to coordinate duties of public servants at the centres, monitoring and evolution, support integration of database of state entities, to support the development of public services and to provide high-quality public and private services to customers. In terms of functions, the law grants the agency the right to enter into an agreement with administrative and legal entities and based on agreements provide public and private services to its customers (vsxida.gov.az, 2013).

SAPSII has got right to have access to the information systems of state entities, to article their service process in order to prepare relevant program software related to the electronic organisation of services provided by the state entities and to present relevant proposals (Vsxida.gov.az, 2013). All of "ASAN centres" and other sub-functional organisations are subordinate bodies of SAPSII (info graph #3).

Info graph3#: List of subordinate bodies of SAPSII

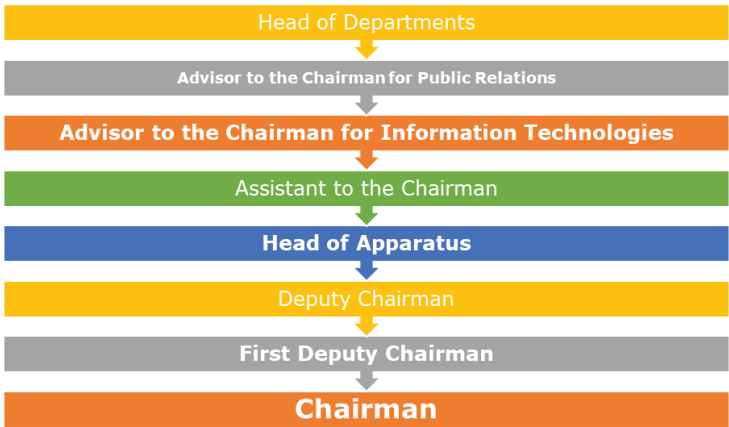
<input type="checkbox"/>	Baku "ASAN service" center No.1	<input type="checkbox"/>
<input type="checkbox"/>	Baku "ASAN service" center No.2	<input type="checkbox"/>
<input type="checkbox"/>	Baku "ASAN service" center No.3	<input type="checkbox"/>
<input type="checkbox"/>	Baku "ASAN service" center No.4	<input type="checkbox"/>
<input type="checkbox"/>	Baku "ASAN service" center No.5	<input type="checkbox"/>
<input type="checkbox"/>	Baku "ASAN service" center No.5	<input type="checkbox"/>
<input type="checkbox"/>	Sumgait "ASAN service" center	<input type="checkbox"/>
<input type="checkbox"/>	Ganja "ASAN service" center	<input type="checkbox"/>
<input type="checkbox"/>	Barda "ASAN service" center	<input type="checkbox"/>
<input type="checkbox"/>	Sabirabad "ASAN service" center	<input type="checkbox"/>
<input type="checkbox"/>	Masalli "ASAN service" center	<input type="checkbox"/>
<input type="checkbox"/>	Sumgait "ASAN service" center	<input type="checkbox"/>
<input type="checkbox"/>	ASAN radio	<input type="checkbox"/>
<input type="checkbox"/>	ASAN Communal	<input type="checkbox"/>
<input type="checkbox"/>	ASAN ABAD	<input type="checkbox"/>
<input type="checkbox"/>	"ASAN Mobile" : Mobile Busses and Trains	<input type="checkbox"/>

Source: vsxida.gov.az (2016).

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Info graph#4: Organizational Structure SAPPS



Source: *vsxida.goz.az* (2016).

5.1 ASAN Service (the acronym “ASAN” stands for the Azerbaijani Service and Assessment Network; the word “asan” means “easy” in Azerbaijani language)

“ASAN service” was established in July 2012 as a part of comprehensive reforms on the modernisation of public administration initiated by current, President of the Republic of Azerbaijan. In English the word ‘asan’ means “easy” but as an abbreviation ‘ASAN’ stands for ‘The Azerbaijani Service and Assessment Network’. ASAN service forms a completely new approach to ensuring the satisfaction of the citizens.

The management of ASAN is highly centralised. SAPSII is the central body of executive power that carries out the unified management of ASAN service centres as well as coordinates the work of the staffs of the state entities acting in those centres, holds control and provides assessments, carries out the mutual integration of databases of state agencies, accelerates the organisation of electronic services and improves the management system of centres (The Vision, 2015b, p. 20).

At the lower level of management, the ASAN service centres have been equipped with the right public servants with the right skills – they have a highly-motivated, flexible, diverse and skilled workforce which is capable of providing high-quality, personalised public services (Jafarov, 2013)

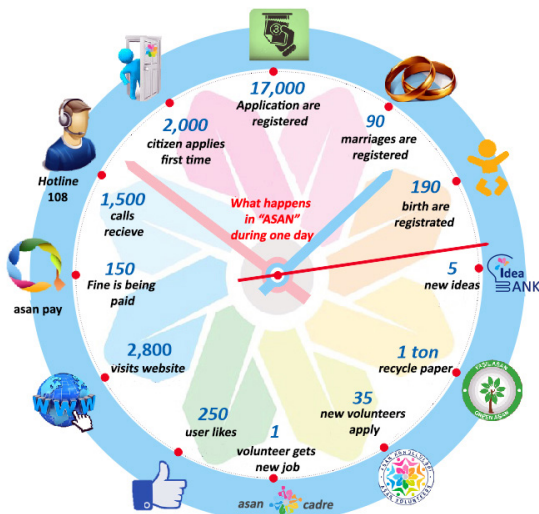
Decree # 706 signed in 2013, defines the regulations governing the “ASAN service” centres. The order explained the authority, functions and structure of the offices. The centres are considered as a territorial branch of SAPSII and are directly accountable to the headquarters. Each may have a stamp and specially defined coding requisites. In terms of functions, the centres are obliged to accept and respond to requests that refer to the public services provided by “ASAN service”. It ensures that customers receive the requested information either in paper or in electronic form and provides other necessary consultations (huquqiaktlar.gov.az, 2016).

According to data was published at info graph #1 indicates a number of activities being occurred in one day at the ‘ASAN service’ centres. Briefly describing, 17,000 applications are registered in order to get public services at the ‘ASAN service’ centres and 2000 of them are citizens who apply the first time. Although, municipalities are allowed to make marriage registration but every day 90 citizens get this service at the ASAN service centres. Another significant initiative of the ASAN service was establishing “Idea bank” on the aim to collect creative, social and served to public interest ideas from the citizens, and involve them in the process of organisation of the work at the “ASAN service” centers of the State Agency for Public Policy and Social Innovations under the President of the Republic of Azerbaijan. Acceptance of the ideas through “Idea Bank” directed by these authorities has been started. Citizens can share their ideas and suggestions in the direction of improvement of the activity of the state agencies through www.ideyabanki.az and www.ideya.az sites. It is considered to award the winners of ideas selected by the commission (asan.gov.az, 2015).

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Infor graph#5: One day at the “ASAN” service



Source: *One day at “ASAN service” [The photo describes activities occurs at the ASAN service centres]. Retrieved June, 2016, from <http://vxside.gov.az/statistics>*

The functioning of the “ASAN service” centres is based on the principles of operativeness, transparency, ethical behaviour, responsibility and comfort. “ASAN service” centres are the bodies to ensure the realisation of the services to be rendered by the state entities in a uniformed and coordinated manner (Apa.az, 2013).

5. 2 Accessibility of Services and Information

ASAN service in Azerbaijani language is called ‘ASAN xidmət’. Googling these two words find out about 231.000 matches in 0,48 second till the date of 26/08/2016. Searching news about ‘ASAN service’ in English, brings out more than 1.940.000 links in 0,43.

There are many videos uploaded regarding the ASAN service. Typing ‘ASAN service’ in English in YouTube bring about 12,300 results and in Azerbaijani language, it comes with about 2,960 results. Another innovative approach for citizens is online dialogue applications which are conducted in order to provide information about the activities of the “ASAN service” centres of SAPSII. Every single

citizen through the online contact functional section on www.asan.gov.az is able to get information regarding the centres, rendered services.

Applications are delivered and immediately answered by the structural section - Call Centre of the State Agency. Moreover, citizens through the online contact functional section are able to indicate about the violations of the law that they face, apply their complaints and suggestions. Online contact functional section is available on Monday-Friday, from 10:00 am to 19:00 pm (Asan.az, 2015).

Generally, the character of the services delivered with ASAN service can be classified into four modes. It is so called "Multifaceted services". First one is "direct services" there are information only services where the agency desk only provides information and advice on how to receive the service. Customers had to go to the relevant organisation's office actually to receive the expected service. In other words, direct service refers to the provision of services directly to the public agency or a private company to a citizen in an "ASAN service" centre. Secondly, "Self-Service", which is envisaged opportunity for the citizens to access for all kinds of electronic services in any centres via internet connected computers. Thirdly they have got 108 call centre where citizens can obtain information regarding all available services and required documents in order to apply for those services. Calls to 108 are totally free from any part of the country and it is free of charge. The last one is so called "Intercity mobile service". In order to use this service, the citizen can call 9-108 without leaving their workplace, residence or current place. Thus all documents required for applying to services and those issued as a result of services can be delivered to the desired location by charging the certain fee. This service is free of charge for all people with assistance and disability. There is also VIP service whereby the particular member of the department at the ASAN service goes to customer's place and deliver this services. It charges the extra fee for those services or it is free if the customer has any kind of disability which does not let her/him come to ASAN service centres. Thirdly, there is a mobile ASAN where ASAN service staff goes from city to city by special buses in order to deliver services in the rural areas of a country. It does not charge the special fee from citizens. These buses are travelling to the cities where there are no ASAN service offices (asan.gov.az, 2013).

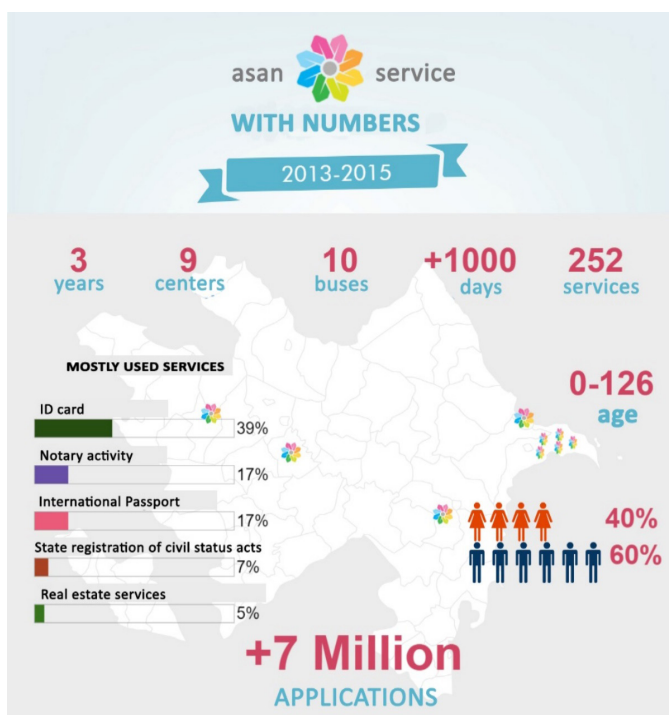
According to the info graph #1, the most applied services were getting ID cards, the following service is related to notary issue. The next service was acquiring

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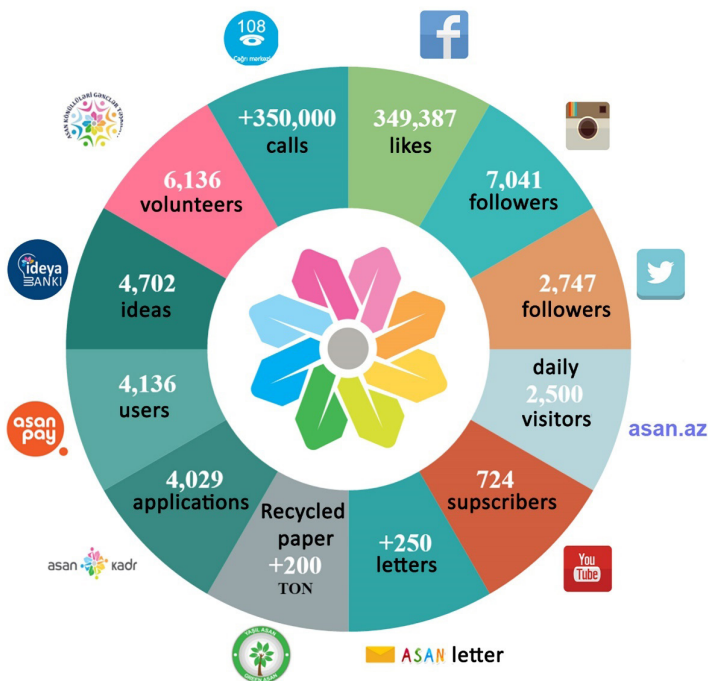
international passport with 17%. Around 7% of citizens applied to get state registration of civil status acts and 5% applied for real estate service. Rest of 15% services shared among 252 services. Another data was given about gender balance of customers applying for services. Thus, 40% of users were females and 60% were males with the range of 0-126 pages (vxside.gov.az, 2016).

Infor graph #6: Main activities' indicators results of "ASAN service" during 2013-2015 years.



Source: *Main activities' indicators with digit "ASAN service" [The photo describes main activities' indicators with digits at the ASAN service centres]. Retrieved June, 2016, from <http://vxside.gov.az/statistics>*

Info graph#7: ASAN service indicators.



Source: Indicators of “ASAN service” [The photo describes activities occurs at the ASAN service centres]. Retrieved June, 2016, from <http://vxsida.gov.az/statistics>

Structure and Public Service Process from Customers’ Perspective at the ASAN centres

The ASAN service centre area is divided into three parts. Area for functional subsidiary services, self-service, area for quick service and area for long services (asan.gov.az, 2014). In the area for self-services customers are able to use computer-based or online services in the specially installed kiosks, e-queue system, etc. Customers can independently access various services, including printing out a statement of assets or businesses, taking the biometric photo for a passport, withdrawing cash from ATM machine, executing remote payments, etc. In the

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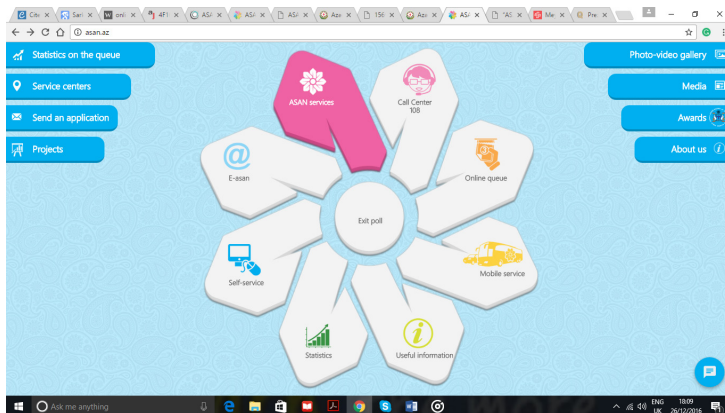
area of a comfort zone, customers are able to use kids' area, mother-care room, Wi-Fi cafe, modern art corner while awaiting their services. In the area of functional subsidiary services customers receive mostly service from private entities such as Bank services; Insurance services; Legal subsidiary services "Azerigaz" PU customer services; Azersu" OJSC customer services; "Azərişiq" OJSC customer services; Bakcell customer services; Azercell customer services; Central Bank - Issuance of reference notes from the Centralized Credit Registry; UR Style (sales of tickets for cultural events); Sale of air tickets; Tourism services; Customer services of Connect (asan.gov.az, 2016).

In the area of long services customers receive public services which require the longer time than on average. The services include submission of an application to obtain a passport, submission of documents for the registration of property or business, opening tax account, changing driver licence, obtaining a statement from an archive and biographical statements or any other service that requires more time to receive. A clear separation of public services according to the time consumed minimises the risk of lengthy and chaotic queues, making the movement of people more organised and orderly. Centres are well equipped with a queue management system to track the number of customers by services. Besides, customers are able to get information from advertising banners and signs placed in the hall simplifying the movement of people inside the building (asan.gov.az, 2016).

The advanced and unique element in ASAN Service is that various public services are grouped together in a single place, managed by the SAPSII, where various state entities are directly responsible for providing their own services. This help the citizens to have everything at their disposal in one centre (The Vision, 2015c, p. 23).

One of the advantageous of "ASAN service" is allowing citizens to get enough information just visiting www.asan.gov.az website (info graph #8) regarding the particular service (fee, required documents) and most importantly to make an appointment without leaving home.

Info graph#8 - ASAN Service Website, Homepage



Source: *asan.gov.az* (2016).

Info graph#10 - ASAN Services and Public Entities

	SERVICES ¹⁵	
Ministry of Justice	<ul style="list-style-type: none"> -Birth/death registration -Wedlock registration -Registration of divorce -Registration of child adoption -Registration of determination of paternity 	<ul style="list-style-type: none"> -Registration of changes to the given name, patronymic and family name -Issuance of certificates on state reg. of civil status -Notary service, receipt of documents for issuance of Apostille for documents intended to use abroad
Ministry of Interior	<ul style="list-style-type: none"> -Issuance and renewal of identity cards -Issuance and renewal of passports of citizen 	<ul style="list-style-type: none"> -Renewal of driving licenses -Reference note about the conviction
State Committee for Property Affairs	<ul style="list-style-type: none"> -Issuance of extracts and technical passports of initial and repeated registration of ownership rights on apartments -Issuance of reference note of state registration about restriction of rights and description over the real estate -Issuance of extracts, technical passports of repeated registration of ownership rights on private houses -Issuance of reference notes on information about land cadastre 	
State Customs Committee	<ul style="list-style-type: none"> -Receipt of customs declaration and documents for customs clearance 	
State Migration Service	<ul style="list-style-type: none"> -Issuance of documents for temporary and permanent residence permits and granting work permit to carry out paid labour activity in the territory of the Republic of Azerbaijan to foreigners and stateless persons 	
National Archive Department	<ul style="list-style-type: none"> -Issuance archive references to legal and physical persons 	
Ministry of Taxes	<ul style="list-style-type: none"> -Registration of commercial legal persons and tax payers 	
State Social Protection Fund	<ul style="list-style-type: none"> -Determination of occupational pensions 	
State Service for Mobilisation and Conscription	<ul style="list-style-type: none"> -Military service and removal of military registration of conscripts and citizens with military duty in cases of the registration and removal of registration of residence 	
Functional subsidiary services	<ul style="list-style-type: none"> -Bank services -Insurance and medical services -Legal subsidiary services -Service for translating all kind of documents into/from state language from/to different languages 	

Source: *The Vision* (2015c, p. 24).

6. Discussion

Overall, the Azerbaijani public administration still has a strong legacy of the soviet era. However, the role of the international organisations should not be omitted. USAID, World Bank, UNDP, EC and EU played a certain role in the formulation

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of post-soviet public administration in Azerbaijan. The reform of civil service system started in 2005 by establishing, and it aimed in the modernization of administrative and operational management; improved systems and institutions of civil service; development of HRM by conducting training; the active process of ongoing consultations with international and national community; the construction and continuous upgrading of customer-friendly facilities and improved terms and conditions for efficient recruitment of civil servants. It achieved positive improvement towards e-Government, with the improvement of inclusive web-site of the commission, development of e-register of civil servants, e-recruitment system, automated testing system, application of central platform for dialogue and partnership between the Commission and all line ministries and state agencies. Lately, Commission is also working toward making all recruitment services accessible online (Dqmk.gov.az, 2016).

Moreover, full reform, of the Azerbaijani public administration sector will be achieved when finally putting into practice new EU-compliant legislation and regulation (Action Fiche for Azerbaijan, 2010).

Overall the policy transfers of international organisation in public service delivery and civic service to have relatively stronger influence rather than any other sector. Nowadays citizens are not seeing public servants with angry faces and who always seeks to create challenges. Most importantly "ASAN service" system decrease the role of public servants and increase the role of algorithms, procedures and standards which public servants are not allowed or not able to make any minor changes. ASAN service also brought new collaboration with civil society members. As an example, in March 2016 public council has established at the ASAN service. Member of this council are consist of active members of civil society organisations, lawyers and normally public entities are not interested in establishing public councils but this initiative came from the chairman of "ASAN service" (Nuriyev, 2012).

"One of the optimistic outcomes of the network is that young volunteers aged from 17 to 25 are helping citizens who are incapable of filling in applications themselves." For those who cannot appear any of ASAN centres, "the Agency developed a mobile service of cars and buses equipped with all the necessary technologies to provide the same services to all the Azerbaijani people." Each of mobile service buses has got, solar energy batteries that produce energy for devices

when the bus stops during the service. - ATM (Banking service). - Laptop computers and printers - Queue machines - High-speed satellite Internet - IP phones - ID printing machine (The vision, 2015d, pp. 25-26).

“ASAN service” model exemplifies the effective case of Public-Private Partnership. Thus, a citizen can use from various public and private services in one centre (single administrative building) at the same time by entering through the single door. Up to 12 ministries with over 30 group of services and over 25 private services are available in any ASAN service centers (Jafarli, 2015). ASAN creates an alternative in public service delivery. Services are being delivered by the participial ministries and state entities inside ASAN service centres. At the same time ministries continue to deliver services both in ASAN service centres and in their own state entities with traditional way. This model creates a free competition and public choice. Now people have alternatives to choose ASAN service centres or that state entities in order to get public services (Karimov, 2014).

“ASAN service” was awarded with the United Nations Public Service Award with the First Place Award in the category of “Improving the Delivery of Public Services”. This award was given first time in this category among post- Soviet countries. And it was mentioned that “ASAN service” applied by several hundred initiatives from all over the world (asan.gov.az, 2015).

According to (OECD, 2013), the introduction of ASAN Service Centres, the advance of electronic services and the facilitation of access to public services, as well as the adoption of laws for the incorporation of international anti-corruption standards into the local law, are recognised as positive steps taken by the Azerbaijani government in the fight against bribery. Likewise, the EU, in the document for the implementation of the European Neighbourhood Policy in Azerbaijan, point out that “the government initiated visible measures against corruption and to increase transparency by launching on the basis of the “one-stop-shop” principle the SAPSII, the services of which were made available also on mobile applications as well as on online e-Government services in the regions” (EC, 2014, p. 4).

Establishment of “ASAN service” and embracing ICT advantageous contributed e-government process of the country. The President declared 2013 as the ICT year for Azerbaijan, obligating state authorities to implement electronic document management from 01 July 2013. Following presidential decrees have mandated disclosure of state and local bodies’ acts through electronic information

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systems combined with a state program for ICT development and e-government activities (PwC report, 2015, pp63). Therefore, Azerbaijan's progress in the development of ICT infrastructure is reflected in several international benchmarks.

According to the E-Government Development Index report 2016, Azerbaijan's standing was improved by forty positions and we were 66th out of 193rd countries. In the 2012 year's report, Azerbaijan held the 96th position among 193rd countries (see. Figure #11)

Azerbaijan has improved its positions in many categories, particularly in terms of institutional structure and regulatory environment. However, major weaknesses remain, such as lack of support for research and education by the government and the private sector, and limited use of innovation in business (Publicadministration.un.org, 2016).

Info graph #11: E-Government Development: Azerbaijan Results (2016 - 2017)



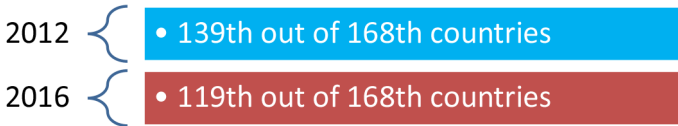
Source: *Publicadministration.un.org (2012-2016).*

This is one of the undeniable facts about "ASAN Service" contribution on e-government policy of the government. The next positive improvement has been made on transparency index. On September 9, 2016, 'Transparency Azerbaijan' released a report on the electronic services provided by the public authorities and electronic exchange of information. In consistency with the results of the e-development index, ASAN Service ranked 1st with the highest result. ASAN Service was completely electronic all of its services. 439 electronic services of 34 state agencies have been assessed in accordance with the internationally accepted methodology and their electronic development index has been determined by the 'Transparency Azerbaijan', the report states (Admiral.az, 2016).

Azerbaijan's ranking on world-wide transparency index also has changed right after the introduction of "ASAN Service". According to the Transparency International Index report 2012, Azerbaijan's standing was improved by twenty positions and

we were 119th out of 168th countries. In the 2012 year's report, Azerbaijan held the 139th position among 168th countries (see. Info graph #12).

Info graph #12: Transparency International: Azerbaijan Results (2012 - 2016)



Source: *Transparency.org (2012-2016).*

Due to all the payments at “ASAN service” centres are made online, through the post office or pay-point kiosks, the quality and speed of services have been improved and services have become much more responsive and cost effective. The fact that there is no cash-flow in the centres also increases transparency and reduces the risk of corruption.

Another success of ASAN service was about a number of citizens applied “ASAN Service” centres. It has been estimated that around 12 million citizens have had access to ASAN services since the inauguration of the first Centre in January 2013, which is an impressive figure given the total population of about 9.5 million people.

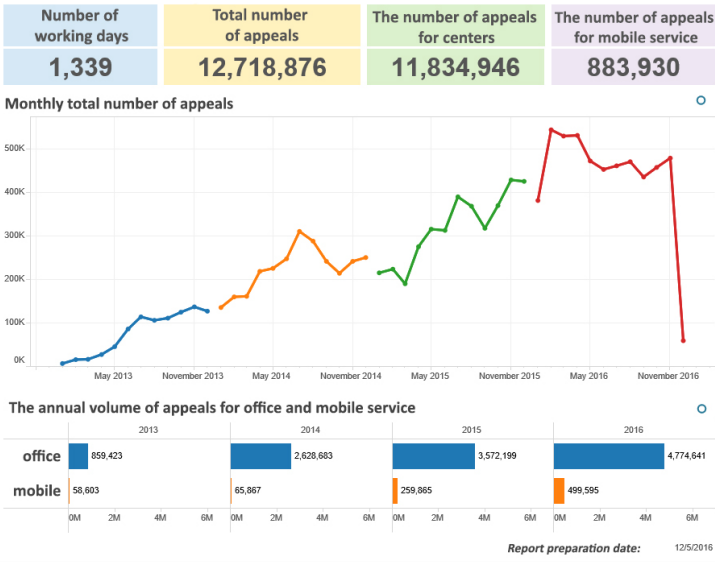
As it is noticed the amount of service requests increased every month since January 2013. It can be mentioned that in all the centers, regardless of their place and year of establishment, the maximum number of appeals is recorded between July and September.

Overall the demand for ASAN services has constantly increased and this is a clear sign of success and relevance to citizens see (Info graph#3).

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Infograph#13: The annual volume of appeals for office and mobile services of ASAN service.



Source: Statistics of the annual volume of appeals for office and mobile services [The photo describes activities occurs at the ASAN service centres]. Retrieved June, 2016, from <http://vxstda.gov.az/statistics>

Since its establishment number of appeals for using public services from ASAN service or mobile services are increasing every year. Info graph #13 clearly shows that every year number of users of services. In order to monitor and assess the services of “ASAN service”, monitoring and Assessment measures are being conducted frequently. The aim of monitoring and assessment activity in ASAN Service is about to ensure and assess the delivery of services in conformity with the established principles and procedures, legal and ethical norms. Methodologies are consisting of Surveillance cameras that record the service process; On-site presence of a department’s representative; “Mystery shopping” tool; Oral, written and on-line surveys among citizens, including exit polls, complaints, suggestions; Investigation of the citizen’s complaints and other information; Statistics on rendered services, citizens’ applications, etc. Measures have been done, thorough investigation of all misconduct, complaints, etc; Administrative measures as a result of

investigations; Issuance of warnings and binding recommendations; Calculation of a customer satisfaction rate based on surveys (unodc.org, 2016, pp. 18-19).

The assessment of every single centre is completed on the basis of the client fulfilment and the time obligatory for a citizen to obtain the service. ASAN service collects on its website <http://vxida.gov.az/redirect/post/pid/521>) daily statistics from each centre, in order to improve their service provision and excellence. The Centres compete with each other to have the best marks at the end of the year. Differences in the performance are analysed according to differences by Centre and service provided.

ASAN Service reports 98% of public satisfaction in the way services are conducted. The 'Citizen Satisfaction Survey' is done quarterly and it includes questions regarding the services rendered, including three personal questions about the age, gender and educational level of the respondents. Apart from that, ASAN service functions work better because of the activities guarantee that the best practices of management and oversight are internalised and organisational errors, deficiencies and contradictions identified and corrected. American online Wall Street Journal reported that, "Azerbaijani Government service set-up to cut bureaucracy, strengthen transparency and improve the ease of doing business to help the people access the enhanced public services" (prernews.az, 2013). Put in the words of Clark, "This increase the efficiency of the public service, and reduce opportunities for corruption" (Schumpeter, 1942 cited in Vashakidze, 2014, p. 23) to reform public administration. Further observation by Mr Erjan Murat (UNDP resident representative and interim for the Republic of Azerbaijan), shows that "It is most innovative approach in the field of public service delivery, and it should in another country too" introduction of one-stop shop in Azerbaijan is highly appreciated as a part of ongoing reform of public administration (Murat, 2013)

7. Conclusion

This article set out to determine how analyses the implementation of the NPM ideas in Azerbaijan, using the case of the ASAN service. The research evidence also shows that the extent to which NPM ideas were imported was limited and constrained by the institutional framework and culture prevailing in the Azerbaijan bureaucracy.

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OSS policy in Azerbaijan was driven both by the global trends for managerial reforms and by country-specific political, organisational, technological, and cultural factors. The global drivers for integrated service provision in Azerbaijan were diverse. These included globalisations, pressure from the international organisations, public unhappiness with the management, and definitely opportunities offered by the ICT for shifts in service delivery. A mixture of these aspects influenced the government's intention to turn to the opportunities presented for integrated working. The concepts of clear targets, performance indicators and transparency collided with a culture that was strongly influenced by legal control, a patronage system, and bureaucratic administrative procedures. Political leadership pushing the government bodies to integrate services rapidly and tend to give more authority. This article provided a snapshot not only of the "ASAN service" policy implementation but of the overall political and administrative situation, the role of local and international stakeholders in Azerbaijan. This article exposed striking correspondences in Azerbaijan with other transitional republics in terms of facing both administrative and socio-cultural constraints during the implementation of managerial reforms.

Moreover, high level of public engagement such as "idea bank", "public council" to be addressed to improve transparency and efficiency. Implementation ICT has taken the pivotal role in the success of reform. The concept of 'e-Government' became famous in the process of administration reforming, as it provided citizens with rapidly information and improved access to services while representing, for the first time, a highly innovative way to improve the participatory equality (Pollitt & Bouckaert, 2011). Christensen and Lægreid (2011) argue that reforms in the public sector are characterised by "combination, complexity, layering and hybridization, rather than by dominance, substitution and pendulum swings". Later they add, reforms in the public sector consist of numerous elements, and the orchestration of those elements is a motor for reform (Christensen & Lægreid, 2011, pp. 407-423).

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IMPACTS OF COVID-19 ON SOCIETIES AND ECONOMIES

The current COVID-19 pandemic has come as a profound shock to our societies and economies as a black swan event. It is not only a threat to public health but also a social and economic crisis that affects societies at the core. Tens of millions of people are at risk of extreme poverty and starvation. It undermines advances in global poverty, fair income distribution, democratic rights, clean energy, and much more. Economic recovery is likely to be uneven, leading to further inequality in the years to come. This edited book aims to identify how the COVID-19 experience will change many economic and social dynamics and what can be done for a better World.

**M. Mustafa Erdoğan
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