

ADMINISTRATIVE, ECONOMICS AND SOCIAL SCIENCES

Theory, Current Researches and New Trends/2021

Editors

Assoc. Prof. Dr. Yüksel Akay ÜNVAN

Assoc. Prof. Dr. Hacer ARSLAN KALAY



ISBN: 978-9940-46-072-3



Cetinje 2021

ADMINISTRATIVE, ECONOMICS AND SOCIAL SCIENCES

Theory, Current Researches and New Trends/2021

Editors

Assoc. Prof. Dr. Yüksel Akay ÜNVAN
Assoc. Prof. Dr. Hacer ARSLAN KALAY

Editors
Assoc. Prof. Dr. Yüksel Akay ÜNVAN
Assoc. Prof. Dr. Hacer ARSLAN KALAY

First Edition •© May 2021 /Cetinje-Montenegro

ISBN • 978-9940-46-072-3

© copyright All Rights Reserved

web: www.ivpe.me

Tel. +382 41 234 709

e-mail: office@ivpe.me



Cetinje, Montenegro

PREFACE

Dear Readers, We are together again with a new book. In this work, we focused on the developments in the banking and finance sector. If the results of each book chapter and analysis are evaluated, it is of a quality that can contribute to the literature. The banking and finance sector is reshaping. Some of the issues we talked about today will probably be out of date in a short time. Information technologies such as blockchain technologies continue to dominate the financial markets. The days of COVID-19 that cannot be dealt with are still effective on the markets. We, academics, continue to produce, guide and lead. Thank you to all my colleagues who contributed. Our wish is that this work will be a useful resource for you and meet with as many people as possible.

Best wishes and regards.

CONTENTS

CHAPTER I

Ahmet Niyazi ÖZKER

**THE GLOBAL PUBLIC FISCAL RISK MANAGEMENT AND
GLOBAL STRUCTURAL PRIORITIES IN THE EMERGING
ECONOMIES1**

CHAPTER II

Ahmet Niyazi ÖZKER

**INSTITUTIONAL EFFECTIVENESS IN SUSTAINING
FINANCIAL STABILITY AND ANALYTICS OF ANTI-
CORRUPTION PROCESSES19**

CHAPTER III

Canan Zehra ÇAVUŞ

SPATIAL DIMENSION OF COMPETITION:

COMPETITION OF CITIES38

CHAPTER IV

Denis LYSENKO & Leyla AKGÜN

**ACCOUNTING AND ECONOMIC ANALYSIS OF THE
ACTIVITIES OF OIL COMPANIES AND THE
IDENTIFICATION OF RESERVES FOR THEIR GROWTH:
THE CASE OF RUSSIA72**

CHAPTER V

Ecenur Uğurlu YILDIRIM

**FINANCIAL DEVELOPMENT AND UNEMPLOYMENT
RATE IN TURKEY: NEW EVIDENCE FROM NARDL
APPROACH93**

CHAPTER VI

Erdem ÖNCÜ

**THE IMPACT OF COVID-19 ON HEALTH SECTOR STOCK
RETURNS109**

CHAPTER VII

Esra CANPOLAT GÖKÇE

**PERSISTENCE OF SHOCKS TO ECOLOGICAL
FOOTPRINT OF THE OECD COUNTRIES122**

CHAPTER VIII

Evren İPEK & Onuray ELAL

**UNEMPLOYMENT RATE - ECONOMIC GROWTH NEXUS:
AN EMPIRICAL EVALUATION FOR TURKEY141**

CHAPTER IX

Hüseyin SEVGİ

**LABOR UNION APPROACHES IN THE WORLD AND IN
TURKEY: NEW TECHNOLOGY AND
LABOR UNIONS162**

CHAPTER X

Özge Öz DÖM & Yılmaz BİNGÖL

**MOTIVATIONS OF TURKISH YOUTH FOR POLITICAL
PARTICIPATION178**

CHAPTER XI

Rasim Berker BANK

**12 SEPTEMBER 1980 MILITARY COUP AS AN
EXCEPTIONAL STATE FORM197**

REFEREES

Prof. Dr. Ali elikkaya, Eskisehir Osmangazi University

Prof. Dr. Aye zcan, Giresun University

Prof. Dr. Levent Aytemiz, Bandırma Onyedi Eylul University

Assoc. Prof. Dr. Oğuz Başol, Kırklareli University

Assoc. Prof. Dr. Oktay Kızılkaya, Malatya Turgut zal University

Asst. Prof. Dr. zlem Ayvaz Kızılgöl, Bandırma Onyedi Eylul University

CHAPTER I

THE GLOBAL PUBLIC FISCAL RISK MANAGEMENT AND GLOBAL STRUCTURAL PRIORITIES IN THE EMERGING ECONOMIES

Prof. Dr. Ahmet Niyazi ÖZKER

Bandırma Onyedi Eylül University, Faculty of Economics and
Administrative Sciences, Public Finance Department 10200-TURKEY
ORCID ID: 0000-0001-5313-246X niyaziozker@yahoo.com

1. INTRODUCTION

The global nature of public financial management implies important common-global fiscal standards among countries. These standards have shaped in a framework that expresses the effective and efficient risk management of accounting and auditing standards among the income and expense balance standards established by structural financial reform policies. Financial and monetary institutions established at the international level in ensuring the countries' financial harmony at the global level required the formation of some important global standards. They aimed to make the balances in the countries' national budgets more open and transparent at the global level and form them with open reporting techniques. In this context, public financial management's global nature has targeted the standards of accountability, transparency, fiscal integrity, and accountability at the international level. The United Nations member states have shaped the process at the level of global information exchange by applying the standards of having high-quality information on the global public financial management. Certainly, the determination of international standards in preventing corruption at the global level and the detection and punishment of financial crimes have made it important to set incentive and easily applicable standards at the global level in the fight against corruption. Thus, financial compliance for the protection of public resources at the global and global financial facilities for the supply of goods and services for countries and global non-governmental organizations' contribution to public financial management is quite significant in this respect (Jones and Knaack, 2019: 4). Especially, as intended to the emerging economies, it is important to encourage and facilitate global cooperation in taking financial measures to combat corruption at the global level. The need for an implementation process of global public financial management under international financial control standards arises, especially for emerging economies (Ocampo, 2000: 46). In this respect, clarifying public revenue collection and control in the international

interaction process has an important-meaningful place for emerging economies.

The global public financial management process is accepted as an important tool for managing global debt limits and sectoral policies regarding the exchange rate between countries to an optimal level. In this respect, it is meaningful that the macroeconomic framework will be based on the equilibrium conditions and which macroeconomic targets will establish a relationship with which financial management dynamics. It is also determined by the public global financial policies with which political recommendations the resource allocation distortions arising from global unexpected external shocks and financial difficulties will be on the agenda. In this respect, the political analysis of tax subsidies and the phenomenon of public expenditures directly related to them constitute the main theme of fiscal risk management regarding inter-governmental fiscal transfers via monitoring them. In this respect, the global public financial management process is considered a policy whole towards creating a global infrastructure with a holistic approach and macroeconomic policies. One of the most important studies regarding the global nature and problems of public financial management is the work of Kioko et al (2011). In this study, the institutional efficiency level of public financial management has considered and the socio-economic dynamics of effective financial management have mentioned. As a meaningful study presently, in terms of the global characteristics of public financial risk management, Lawson's work (2012) is another important study that deals with the global characteristics and development of the management process dynamics. In this study, the development and change of global financial management have emphasized. The global nature of managerial, financial problems, especially in developing countries, has been discussed within target standards. Another study on the global nature of public financial risk management is the joint work of Morgner and Chêne (2014). In this study, the transparency and controllability nature of global public financial management was emphasized and the position of the controllability elements by the budgeting process within the framework of international standards was examined.

2. THE GLOBAL NATURE OF PUBLIC FISCAL RISKS AND THE LEVEL OF GLOBAL RELATIONSHIP

A public financial management process with a global level of efficiency as the desired level creates an effect mechanism globally. Its structure encourages economic growth by carrying economic activities to a more active position in the medium and long term. Undoubtedly, this situation is meaningful as the public sector balance sheets and related public decision-making processes form short-term support for public

infrastructure and the determination of their financial priorities. Besides, it is important to know how public sector balance sheets will form a common policy within global integrity against global shocks (OECD, 2011: 14).

2.1. Structural Interaction and Impact Dynamics in Global Public Financial Risk Management Deviations

Understanding the structural dynamics of the global public financial crisis process management is important in understanding the levels of impact on crisis management via these dynamics. In other words, in this scope of dynamics, a global public financial crisis management refers to the global relations between financial risks and public financial obligations. In this context, and global public fiscal risk management relations gain a striking meaning, especially with the establishment of mutual inter-country obligations between borrowing policies and macro shock factors that constitute the global level of financial efficiency (European Fiscal Board, 2019: 64).

Therefore, the comparison of different financial policies of nations, which is one of the most important features of financial risk management, makes a global risk policy based on the difference in financial fragilities inevitable even if the fact based on the same dynamics. In this context, it is possible to make the following determinations about the global nature of global public financial risk management:

- The global public fiscal risk management process reveals a global structure that aims at optimal management of public debt and public debt at the global level. In other words, this structure refers to a political decision process in which possible global financial risks are also taken into account within the scope of this management process (Ehrmann and Fratzscher, 2006: 26).
- The relationship between the magnitude of financial risks and public global borrowing implies an obligation to investigate public debt ratios' global effects. Analytical tools for understanding financial risks have an important place with the global significance of sustainability analysis in standard borrowing and public expenditure limits. In summary, this approach is based on analysing global factors in the correct estimation of financial risks regarding the aforementioned results on a larger scale (United Nations, 2019: 133).
- This position of international global open financial liabilities regarding international credit options in the process has an important place in global financial risk management. In this respect, a more accurate understanding of the magnitude and

distribution of possible global financial potential shocks in global major risk analysis and estimates and a realistic determination is an important potential inference reason for global public risk management (Ehrmann and Fratzscher, 2006: 9).

- The global public financial risk management process generally reflects some dimensions different from fiscal risk processes at the national level. Although financial risk levels are low, it is seen that some risk factors are involved in the process of global financial risk management for political reasons as a globally significant risk potential. In this respect, public financial risk management does not always show a linear symmetrical reflection. It has a structure where possible financial shocks are large at the global level and global nature that is non-linear in expectation levels and does not give a potential meaningful inference with national comparisons. This structural difference reveals an important rationale and common practices that carry the public nature of global financial risk management to the process of global political integrity in practicing (Jankensgard, 2019: 570).
- The most important feature of global financial risks is that they pose a significant threat to financial solvency at the global level by their nature. Even though the macro-financial variables that have changed over the years at the global level have been controlled within a very narrow band, they may cause a process of macroeconomic distortions in which countries are affected more negatively from time to time. Indeed, the development of some macroeconomic shocks after the 2009 financial crisis created significant fiscal deviations in the distribution of debt stocks and deterioration in the GDP of the countries affected by all these, resulting in an important global financial risk factor. In some countries, this phenomenon is outside the scales of global public financial control and has also initiated an important fluctuation process in terms of GDP. These fluctuations mean that public administration activity is at a lower level as effectivity at the global level (Mustapha, 2019: 65).

Although there are occasional positive fiscal changes after 2009, it has been observed that there is often no sufficient fiscal change process at the national level. This is why countries prone to adverse macroeconomic shocks are more affected by the slowdown in the global financial management process. The frequent presence of financial contingent liabilities and the existence of possible financial shocks regarding the distribution of public borrowings necessitated a public financial management process covering an average of three years for the next years.

Especially in this process, the global nature of open financial liabilities and its position in the process of international credit options can be perceived as a potential future financial risk dynamic for global risk management. In this case, in terms of structural financial relations, making global higher-scale risk analyses and their realistic estimation plays a key role in global financial risk management, which reveals the main objectives of important risk policies.

2.2. Global Financial Risks Management Process and Structural Analysis' Location In The Process

The scope of reporting and regulations regarding financial risks, which is the primary element of global public goods and risk management, reveals some different structural management processes depending on the levels of development and the nature of the relevant risks. In a fiscal management approach to fiscal analysis processes, it is seen that some dynamics related to the process set forth by quantitative macro-fiscal sensitivity analysis are determined at the global level. In the other words, it appears that the deviations in the economic-fiscal parameters of countries subject to financial risks at the global level are revealed by analysis based on some estimation principles.

However, it appears that why the global financial risk management process brings some negative management externalities into the agenda within the scope of stochastic estimates based on uncertainties about estimates. In this context, quantitative macro-financial sensitivities are shaped around parameters that show sensitivity to macroeconomic changes. In this context, a global public financial risk management process is determined and created by comparing commodity prices, exchange rates with the objective parameters within the scope of GDP growth targets, which beings depend on the global common fiscal values. The simultaneous structure of the public financial risk management process parameters constitutes an important financial risk management basis and the analysis of the sensitivity of the balance sheets and countries under financial risk, which are in economic shocks based on macro-financial scenarios (World Bank, 2019: 32).

In this situation, this fact is determined within the scope of its relationship with changes in values related to global financial risk management. In this regard, it has been observed that a few countries such as Australia and New Zealand have established a certain public financial risk management process by comparing the changes in the net worth of public assets and public borrowing with the assets of these countries. In this context, it should be emphasized that the global financial risk management process expresses that recognizes the dynamics of risk

management process at each stage and is based on the characteristics of these dynamics. Undoubtedly, one of the primary dynamics of global financial risk management is defining as qualities and explaining the possible impact levels of today's risk scale units. The question of whether the global financial risk scale values can be controlled at an adequate level framework of positive impact, again reveals an important stage regarding the structural definition of these dynamics in the first stage in the process. In Figure 1 below, it is possible to see the flow chart of the global public financial risk management process and the structural dynamics of the process:



Source: IMF (2018), *Fiscal Transparency Handbook*, Washington D.C.: International Monetary Fund (IMF), Publication Service Department, p. 97.

Figure 1. Stages of the Global Financial Risk Management Process and Its Structural Dynamics

As can be seen in Figure 1, it is possible to handle global public risk management in four stages. The first of these stages includes the identification of risk sources and the calculation of the impact scale values in the occurrence of risks. On the other hand, it is seen that the probabilities of realization of these calculations form an important decision process problematical at the first stage. Therefore, in the first stage, the structural definition of the risks at the global level and the understanding of the scale values represent an important structural dynamics in decision processes. The second stage, on the other hand, reveals the stage of addressing in

decision processes whether the possible risks can be made positive or not with global public interventions.

In other words, with the global financial risk management being the subject of public interventions, handling the risks in a moderate and controllable manner is addressed in the second stage as an important problem to be controlled. In the third managerial phase of the global financial risk process, it is observed that the approaches of financial measures towards risks come to the fore. Briefly, at this stage, the structural effects of the reflections of financial activities on the budget are discussed, and the impact value of the public interventions in the process of the development of existing financial assets in the process is also determined at this stage. At this stage, the possible costs arising from global financial risks and the public decision-making process, in which these costs are taken into account, has an important place in the formation of global budget policies with its global characteristics (Alnesafi and Kasumba, 2016: 19-20).

Especially in the formation of regional financial unions, the approaches that need to understand the effect of a common fiscal practices process from financial risks arise from this point. In the fourth phase of the global public financial management process are discussed whether the fiscal risks will be met by certain practices such as public borrowing policies. Establishing a global debt policy commissions is a driver for determining the borrowing policies of countries affected by fiscal risks at the global level and whether financial resources will be used to cover possible risks. Public fiscal management process gains a global character in the fourth the stage of the risk management process and ensure to motivation throughout the global fiscal risk management as the fiscal applications, global public interventions to probable global risks (Mustapha, 2019: 67).

3. APPLICATION DYNAMICS AND ANALYSES OF GLOBAL PUBLIC FINANCIAL RISK MANAGEMENT IN EMERGING ECONOMIES

The term emerging economies is an expression used for countries in the financial stability process that international capital sees attractive to realize its targeted investments at the global level and have an infrastructure open to development. The IMF includes approximately 25 countries in this category, while the International Finance Institute raises this number to 30. The global public finance risk process primarily based on the establishment of risk clusters regarding the development level of countries in emerging economies. First, financial assets and other financial asset liabilities within the scope of financial liabilities in emerging economies should be gradually defined as the net value in the process. In another word, handling

these values, which are public financial global assets, especially based on certain liabilities, and determining the effect of analytical capacities of possible financial resources on macroeconomic variables constitute an important application stage (Bingham, 2000: 71).

3.1. Global Financial Crisis and Efficiency Dynamics Components in Its Emerging Economies

With the handling of the global public financial crisis processes based on emerging economies in terms of global financial characteristics, it is seen that a determined growth comes to the fore as a priority. Even if the emerging economies entered a period of significant stagnation after the 2009 global financial crisis, they have reached a very effective growth process in the short term. This process, in which the negative effects of the crisis decreased significantly for the countries representing emerging economies, despite the contraction processes in the economy of some developed countries, achieved a remarkable economic growth trend with significant development. This situation can be interpreted as being able to act independently from the global financial crisis factors originating from developed countries for emerging economies and to have made financial decision-making processes effective at the stage (Long, 2019: 100). It appears that the global financial crisis processes related to emerging economies generally emerged depending on the market and financing dynamics of developed economies. Countries representing emerging economies take important steps in industrialization. East Asian economies, especially China, establish an important marketing integration network in final consumer goods, which is an important factor in overcoming the global financial crisis. It seems that these countries aim to achieve a striking economic growth target because of increasing their profits and consequently their savings and creating a significant increase in the national consumption volume.

However, the dependence of today's emerging economies on foreign markets has not decreased. This situation, which constitutes an important crisis dynamic in terms of a global financial crisis, can be overcome by increasing the global market scales for emerging economies. On the other hand, it appears that fiscal external dependency is an important cause of the global financial crisis within the scope of current account deficits for emerging economies. Balancing the external surpluses of energy exporting countries, especially with some crisis factors in emerging economies, constitutes a necessary policy framework. With a cheaper monetary policy and financial liberalization, such a process has provided a significant external financing resource that grows with domestic demand in some emerging economies with high export dependency, creating a positive impact process against possible global financial crises (IMF, 2016: 7). For

long-term fiscal sustainability of public liabilities and their balance values reflected in public balance sheets, these results are important for implementation. Emerging economies also need to reveal the public financial assets and liabilities related to market confidence and government bond returns within the scope of financial liquidity values in terms of implementation analysis in order to overcome financial risks. In addition, it is seen that the financial risk statements of other public units within the scope of State Economic Enterprises discussed and are constituted an important structural basis for risk management practices and analysis. However, it is necessary to establish an application-oriented macroeconomic variable level in the formulation of implementation-oriented fiscal policies and undertake periodic stress tests of global public finance values.

These practical analyses constitute an important implementation dynamics with the effects of financial risks and possible financial shocks on public liquidity and sustainability and solvency. The global public insufficiencies in the payment difficulties of countries with high financial fragility, which cause global public risks, also cause fundamental problems regarding global liquidity sustainability globally. Therefore, long-term fiscal targets are clearly determined at the worldwide level. The clarification of the international fiscal stance in the countries' annual budgets for the next years constitutes another essential part of the global public financial risk practices. On the other hand, public borrowing of global companies in the public sector generally refers to public assets guaranteed by the state, albeit indirectly. In this framework, public financial transactions can create an important global risk source for government finance. Public sector companies can be evaluated within an important financial risk process due to the lack of information regarding potential future market conditions that may affect their corporate finances in the process of variations in dividends and corporate taxes as a financial risk dynamics. Periodic restructuring of public sector companies and support in capital flows is an important cause of global financial risk in a process of uncertainty regarding practices. Besides, for public interventions in these businesses in the public sector are also an important cost factor, this phenomenon takes place in the process as a risk dynamic that directly affects financial risk management at the global level (Grable, 2000: 625).

In this context, the financial performances of public institutions and the global public risk process management related to these performances, the global institutional standards and the increases regarding the structural possibilities in the fiscal risk process are in an increasing proportional position. At this stage, a global public financial risk management process

has to be in a structure that supports the risk management process with appropriate accountability mechanisms within the scope of risk management principles in international standards. Again, in terms of global financial crisis management, risk factors related to certain financial risks in the management process must be considered based on relevant countries. Therefore, different country groups' different financial statements arising from different specific institutional analyses of financial are undoubtedly considered among the issues that can typically be addressed with potential global liability. At this stage, the difficulty in determining a common financial management process for countries may reveal the global public financial management process, which dealt with differently and on several different bases at the global level with some regional or specific applications. This situation is a global fiscal risk management continuity with analyses for the financial risk differentiation process, which means that the scope of global financial risk controls sustainability (The Global Fund, 2017: 61).

3.2. Structural Interaction Nature of Global Public Financial Risk Process and Deviations in Financial Crisis

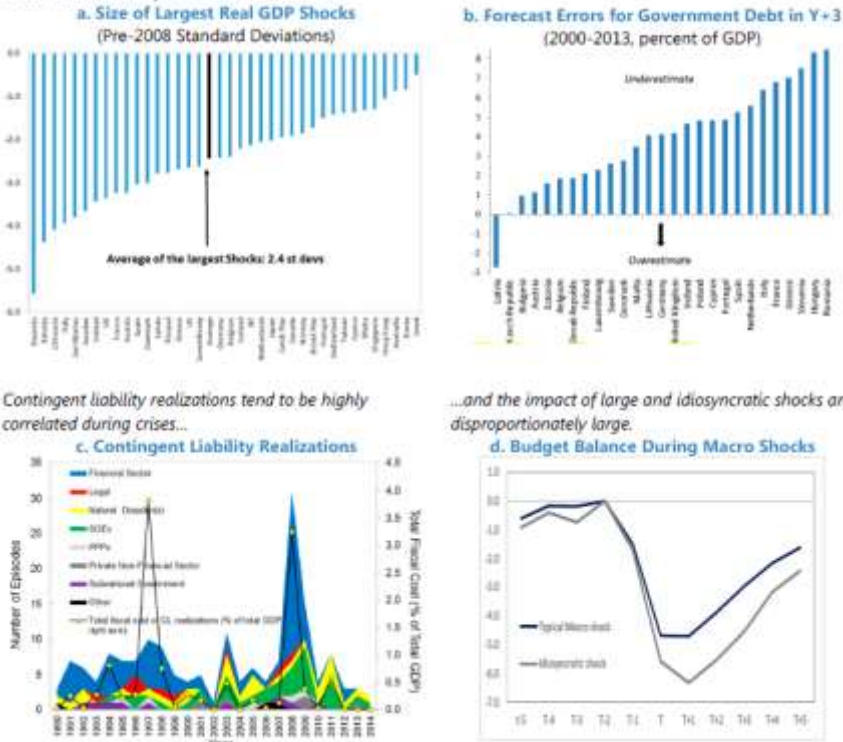
Undoubtedly, the most important risk portfolio for emerging economies in the emergence of global financial crises and the crisis process's management originates from the Euro Zone, which can be described as the weakest link in the global financial system in recent years. The Euro Zone, where financial fragility is at a very high-level today, has further strengthened the possible financial crises' potential negative effects based on the region's countries with significant public debt problems. In this context, the restructuring throughout the economic growth process of emerging economies, which have an important place in the world economy after the 2000s, despite the economic crises and especially the 2009 global financial crisis, has created the medium and long-term growth related to these economies. This approach implies that the global financial crisis's effects in emerging economies will not have occurred higher than the 2009 financial crisis were at a high negative level before.

Although significant financial fragilities in emerging economies and significant negativities in global trade balances have occurred, it is understood from the analysis that these negativities will not continue permanently. Emerging economies, benefiting from international financial crisis options increasingly positively, have successfully balanced the negative effects of possible crises on exports with rapid economic growth trends to a shallow level of impact (Weiss, 2005: 24). The international mutual influence mechanism of public debt and a better global financial risk management constitute an important target dynamic of global financial management. Therefore, a better global financial risk management for

macro-economic balances and awareness of the global financial impact level make a financial risk management policy inevitable. Increasing market credibility at the global level depends on a more transparent and effective global financial risk management. At this point, many countries emphasize the need to address public debt limits as a part of their medium-term financial management strategies in determining fiscal targets at the global level. The fact that financial risk efficiency becomes more controllable needs to mean, in this respect, the existence of standard public debt sustainability as a dynamic of global public fiscal management. In this respect, the global public financial management dynamics' global nature is primarily based on fundamental dynamics formed based on global financial risk management. It should also be emphasized that the expectations of an average of 80 countries at the global level in establishing a common global financial management are focused on understanding the size and nature of the concerned global financial risks. In this respect, it is seen that financial risk dynamics have an important place, especially in emerging economies, in the design of a global public administration. Within the framework of all these dynamics we have stated, it is possible to observe the global nature of public financial crises and their structural distribution in the process in Figure 1 below:

The average fiscal shock is typically larger than assumed in conventional analysis

Risks are also frequently underestimated



Source: IMF (2016), *Analysing and Managing Fiscal Risks-Best Practices*, Washington D.C.: International Monetary Fund (IMF), June 2016, p. 8.

Figure 2. Global Nature of Financial Risks after 2005 and Structural Relationship Correlations

As seen in Figure 2, the nature of global financial crises can be considered in four main structural formations. These four main structures can be named as the deviations in real growth rates in GDP changes, the said borrowing limits for the relevant 3 years in public liabilities and borrowings, and the mutual realization level of public liabilities in a structure where the finance sector determines, and the process of macro shocks and the position of budget balances afterward. It is seen that the average deviation in GDP rates after 2005 caused by the global financial crisis is 2.4. An important reason for these deviations is undoubtedly the deviations in economic growth during the 2009 financial crisis and afterward. Although there are deviations that are more significant in continental European countries' gross domestic product regarding

economic development globally, the deviations in some continental European countries have occurred on a smaller scale.

On the other hand, the increases in public borrowing and the borrowing ratio increases to the Gross Domestic Product for the next three years express a more striking situation. Besides, the mutual obligations have occurred increasingly in the financial sector's progress that was most affected by the global financial crisis processes. The reinstatement of the international fiscal risk process, which was taken under control after 2014, and the balances regarding macroeconomic shocks caused by it is understood to constitute an important positive process in the first 5 years. Although the public budget balances sensitive to financial shocks put the recovery tendencies after the financial crisis into a rapid process, this realization regarding the old position could only be possible in the medium term. Due to the nature of global fiscal crises, this structural formation can be explained by the deviations in the implementation activities of public financial crisis management that do not represent a mutual equivalence in countries (Singh and LaBrosse, 2012: 7).

In this context, the aforementioned different scale effects in other financial risk policies of different countries have taken place in the process as an important factor that differentiates fiscal balances' sensitivity to macroeconomic shocks as a requirement of the nature of public fiscal risks. It appears that this structure related to the global nature of the global public fiscal risk process has increased affecting more e a mutual structural interaction of structural fiscal sectoral balances and becomes effective in a process that directly affects economic growth-based policies. For emerging economies, for meaningful economic sustainability in managing the global public financial process, economies must focus on two fundamental problems. The first of these is to reduce foreign market dependency and eliminate the high-cost effects of the ongoing monetary policies within the scope of dollarization.

It can be said that this is one of the important conditions for creating rapidly developing markets in the region and globally. This situation undoubtedly means that the income distribution has been positively affected in overcoming the global financial crisis and those serious steps are taken towards the social welfare state. Secondly, it is to create a global market economy where the fiscal effects on the markets are under the control of emerging economies while creating a rapidly growing market of emerging economies. In this respect, emerging economies, especially in Asian countries, have to reduce their dependence on foreign capital further. Correcting the dependence on foreign markets without distorting the income distribution constitutes an important target at this stage. Undoubtedly, this positive effect of macro balances also means that the

public budgets of these countries will emerge with more robust and stable policies against possible macro shocks (Sutherland and Hoeller, 2014: 7).

For countries representing emerging economies, the acceleration of capital inflows after 2009 seems to have an important effect on the fall in interest rates. Apart from this, the most important reason for the decrease in investments in the USA and the European Union is that especially the countries in the Eurozone have entered into an important borrowing process. At the same time, this situation can be explained by the weakening of the dollar against rising commodity prices. Namely, not only in terms of capital inflows but also because of the upward reversal in commodity prices. In terms of institutions, this financial crisis phenomenon has reached a more striking position in Asian countries, which makes growth dependent on exports. The contraction in the European Union markets and global financial deficits found more favourable fiscal external conditions after 2012, and some countries in the European Union, especially, entered a positive period in which global capital integration and capital flow trends accelerated further with these favourable financial conditions as intended to the emerging economies. As seen in Figure 1, despite the significant deviations in the export-based production of the countries in the USA and the European Union, significant financial revivals in 2009 in East Asian countries are remarkable (European Commission, 2009, 26).

This process, where the ability of countries to create a significant foreign trade surplus also contributed to the growth of their domestic demand, created a positive ground for easily financing the increasing budget deficits with capital inflows. In addition, interest rates that increased with the crisis entered a downward trend especially in emerging economies, creating new presentation options in loans, financial assets, and foreign exchange markets. This process, in which expansionary fiscal policies were also in place, made a positive contribution to the Gross Domestic Product of emerging economies with significant increases. The problem here is to what extent emerging economies will be able to sustain this rapid growth when there is no stable post-crisis growth in countries such as the USA and the European Union or when there is an economic recession (European Parliament 2019: 2-3). The answer to this question for emerging economies lies in the continuation of the globally increasing financial conditions in an increasingly positive process and the domestic market trying to balance its own current account deficits with domestic economic balances, which can be an alternative to export, for export-oriented countries. East Asian countries representing emerging economies also need these similar financial measures to ensure rapid growth. Especially in China, as a rising economy, there is a large consumption problem, this situation can be explained as the low share of household

wages in the national income, and this phenomenon creates a financial and negative impact in the process with expansionary and continuous policies. Besides, providing low-interest rates for emerging economies based on local governments is also another subset of these future-oriented applications.

4. CONCLUSION

One of the most important stages of global public financial risk management is to know from which macroeconomic factors these risks arise. In other words, knowing whether the factor originating from financial risks is primarily due to exchange rates or interest options or price changes constitutes an important first step of public property risk management. It appears that the effects of risk management especially on existing institutions and analysing the financial and economic situation together with macroeconomic values on this basis constitute another important aspect of this situation. The global public financial crisis management process has always kept the possibility of a meaningful crisis globally, especially after the 2009 global financial crisis.

Establishing an effective and meaningful chain of fiscal policies in global financial crisis management is significant with the global impact of countries' contribution to these policies. It is also observed that the peculiar structure of emerging economies is more affected by the global financial crisis processes, and they have some important positive contribution dynamics towards economic growth and global financial risk processes despite some negative structural dynamics. The management of the international public financial crisis process includes some global priorities in this respect. Therefore, it is important to define the global crises with their qualities and be subject to accurate probability estimates and analyses. Global financial crises have some structural fiscal risk dynamics by their nature. Some possible deviations in risk management need to be balanced with the crisis period dynamics resulting from financial crises' structural process. It is also understood that public borrowings on the global surface has an important place in terms of the global public financial management process and causes significant macro shocks at the global level based on legal obligations.

In this context, public property and risk management also include market interventions to ensure the rational level of borrowing policies and balancing the current balance sheet with public interventions. Tracking the transaction costs of transactions in capital markets is an important public risk management tool, and financial interventions in organized markets at the global level and liquidity transactions regarding the adjustment of the flexible exchange rate maturities play a significant role in the process of

overcoming the difficulties of public fiscal risk management. Besides, in a process where financial risks are considered, it appears that the variations in global financial assets and savings rates constitute important crisis dynamics. These dynamics, which also play an important role in establishing public debt objectives at the global level, also cause significant change effects based on GDP in terms of the dynamics of implementing public risk management in the process.

These important effects also increase at a level equivalent to global financial obligations and contribute to these countries' stability at the budget levels as an important financial risk management dynamic at the global level. Emerging economies after the global financial crisis in 2009 have mitigated the negative effects of the crisis by focusing on policies aimed at increasing sustainable economic growth trends in the short term. Although the developed economies have been more affected by the 2009 blue crisis in the long-term, the higher global capital flows to the countries representing emerging economies also caused them to feel less financial fragility. The risk management process for emerging economies has been realized in a bilateral structure dependent on a global foreign trade volume supported by economic growth-oriented current account balances. Aims such as opening up to foreign markets and reaching global financial resources with lower costs made it easier for emerging economies to manage the global financial risk process and resulted in the positive financial impacts to find a place in these countries at a more effective level.

REFERENCES

- Alnesafi, A. and Kasumba, S. (2016), "Globalisation and the Adoption of Budget Reforms in Developing Countries: Key Evidence from Kuwait and Uganda", *Accountancy Business and the Public Interest* 2016, pp. 16-60.
- Bingham, G. (2000), "International Financial Architecture: Foundations and Framework", in *Financial Globalization and The Emerging Economies*, José Antonio Ocampo, Stefano Zamagni, Ricardo Ffrench-Davis and Carlo Pietrobelli (Eds.), Santiago: Economic Commission for Latin America and The Caribbean (ECLAC) and International Jacques Maritain Institute (IJMI), 2000, pp. 63-76.
- Ehrmann, M. and Fratzscher, M. (2006), *Global Financial Transmission of Monetary Policy Shocks*, European Central Bank Working Paper Series No. 616 / April 2006, Frankfurt am Main: European Central Bank Publishing, 2006.

- European Commission (2009), *Impact of the Current Economic and Financial Crisis on Potential Output*, Occasional Papers 49-June 2009, Brussels: European Commission Directorate-General for Economic and Financial Affairs, 2009.
- European Fiscal Board (2019), *Assessment of EU Fiscal Rules With A Focus On The Six And Two-Pack Legislation*, Brussels: European Commission Secretariat of the European Fiscal Board, August 2019.
- European Parliament (2019), *A Decade on from The Crisis Main Responses and Remaining Challenges*, Brussels: European Parliamentary Research Service, October 2019.
- Grable, J. E. (2000), “Financial Risk Tolerance and Additional Factors That Affect Risk Taking in Everyday Money Matters”, *Journal of Business and Psychology*, 14(4), Summer 2000, pp. 625-630.
- IMF (2016), *Analyzing and Managing Fiscal Risks-Best Practices*, Washington D.C.: International Monetary Fund (IMF), Publication Service Department, 2016.
- IMF (2018), *Fiscal Transparency Handbook*, Washington D.C.: International Monetary Fund (IMF), Publication Service Department, 2018.
- Jankensgard, H. (2019), “A Theory of Enterprise Risk Management”, *Corporate Governance International Journal of Business in Society*, 19(1), March 2019, pp. 565-579.
- Jones, E. and Knaack, P. (2019), “Global Financial Regulation: Shortcomings and Reform Options”, *Global Policy*, Global Policy published by Durham University and John Wiley & Sons, Ltd., 2019.
- Kioko, S., Marlowe, J., Matkin, D. S. T. and Zha, Z. J. (2011), *Journal of Public Administration Research and Theory*, 21, pp. 113-124.
- Lawson, A. (2012), *Evaluation of Public Financial Management Reform in Burkina Faso, Ghana and Malawi 2001–2010*, Submitted by Fiscus Public Finance Consultants and Mokoro Ltd. to the Evaluation Management Group, April 2012, Stockholm: Swedish International Development Cooperation Agency (SIDA), 2012.
- Long, C. (2019), “PFM and Perceptions of Corruption”, in *International Development in Focus PEFA, Public Financial Management, and Good Governance*, Jens Kromann Kristensen, Martin Bowen, Cathal Long, Shakira Mustapha, and Urška Zrinski (Eds.), Washington D.C.: International Bank for Reconstruction and Development / The World Bank, 2019.

- Morgner, M. and Chêne, M. (2014), *Public Financial Management Topic Guide: Compiled By The Anti-Corruption Helpdesk*, Berlin: Transparency International, 2014.
- Mustapha, S. (2019), “Budget Credibility, Fiscal Outcomes, and PFM Performance in Fragile and Nonfragile Countries 61”, in *International Development in Focus PEFA, Public Financial Management, and Good Governance*, Jens Kromann Kristensen, Martin Bowen, Cathal Long, Shakira Mustapha, and Urška Zrinski (Eds.), Washington D.C.: International Bank for Reconstruction and Development / The World Bank, 2019.
- OECD (2011), *Reviews of Risk Management Policies: Future Global Shocks Improving Risk Governance Preliminary*, Paris: OECD Publishing, 2011.
- Ocampo, J. A. (2000), “A Broad Agenda for International Financial Reform”, in *Financial Globalization and The Emerging Economies*, José Antonio Ocampo, Stefano Zamagni, Ricardo Ffrench-Davis and Carlo Pietrobelli (Eds.), Santiago: Economic Commission for Latin America and The Caribbean (ECLAC) and International Jacques Maritain Institute (IJMI), 2000, pp. 41-62.
- Singh, D. and LaBrosse, J. R. (2012), *Developing a Framework for Effective Financial Crisis Management*, OECD Journal Financial Markets Trends, Volume 2011, Issue 2, Paris: OECD Publishing, 2012.
- Sutherland, D. and Hoeller, P. (2014), *Growth Policies and Macroeconomic Stability*, OECD Economic Policy Paper-February 2014, No. 8, Paris: OECD Publishing, 2014.
- The Global Fund (2017), *The Global Fund Guidelines on Financial Risk Management* Geneva: The Global Fund Publishing, November 2017.
- United Nations (2019), *World Public Sector Report 2019-Sustainable Development Goal 16: Focus on Public Institutions*, New York: United Nations Department of Economic and Social Affairs, 2019.
- Weiss, J. (2005), *Export Growth and Industrial Policy: Lessons from the East Asian Miracle Experience*, ADB Institute Discussion Paper No. 26, Tokyo: Asian Development Bank Institute (ADB), 2005.
- World Bank (2019), “International Development in Focus PEFA, Public Financial Management, and Good Governance”, in *International Development in Focus PEFA, Public Financial Management, and Good Governance*, Jens Kromann Kristensen, Martin Bowen, Cathal Long, Shakira Mustapha, and Urška Zrinski (Eds.), Washington D.C.: International Bank for Reconstruction and Development / The World Bank, 2019.

CHAPTER II

INSTITUTIONAL EFFECTIVENESS IN SUSTAINING FINANCIAL STABILITY AND ANALYTICS OF ANTI- CORRUPTION PROCESSES

Prof. Dr. Ahmet Niyazi ÖZKER

Bandırma Onyedi Eylül University, Faculty of Economics and
Administrative Sciences, Public Finance Department 10200-TURKEY

ORCID ID: 0000-0001-5313-246X

niyaziozker@yahoo.com

1. INTRODUCTION

The effectiveness of public financial institutions in ensuring financial stability represents a very important process in which it is aimed to increase the effectiveness of public financial decision processes in practice as well as financial stability. This importance is significant as important balance dynamics contribute to the process in ensuring financial stability. However, above all, it is necessary to emphasize the scope in which financial stability should be handled here. The phenomenon of financial stability refers to a process of including the target public financial revenues in the process and collecting public revenues, as well as ensuring other corporate financial balances and ensuring their sustainability. In this respect, the phenomenon of financial sustainability reveals a structure that starts with the process of preventing financial losses and expresses its separation from all kinds of negative effects that can provide financial stability.

Financial corruption is undoubtedly the most focused issue of institutional effectiveness in ensuring sustainable development. Because, the phenomenon of financial corruption constitutes an important obstacle in achieving an effective process of sustainable development and increasing institutional efficiency (Bochańczyk-Kupka and Pęciak, 2015: 32-33). The World Economic Forum, in its research, determined that corruption amounts to approximately 2.6 million USD globally as of 2019. This amount represents about five percent of the Gross Domestic Product globally. According to the estimates of the World Bank, it has revealed that every year, up to 20 percent of official development figures are subject to corruption. Financial corruption not only hinders economic growth but also causes economic constraints and further weakening of institutional effectiveness within the understanding of the social welfare state.

Financial corruption disproportionately reveals significant differences between underdeveloped and developed countries at the global level (Olken and Pande, 2011: 13-14). Undoubtedly, there is a situation where the introduction of the public service to each corruption issue reduces trust in public institutions regarding the current stages. In this sense, participation in public decision-making processes, democratic voting, and deviations in financial norms have a negative impact on anti-corruption institutional mechanisms. Corporate strategies and practices constitute the most important pillar of corporate efficiency in ensuring financial balances. How to benefit from budget processes for sustainable development and fiscal balance goals expresses the process that has become an important financial strategy. The OECD also defines this situation as national efforts directly associated with the budget process within the scope of institutional arrangements and practices. It is seen that more than half of the 46 voluntary national review reports primarily support the view that institutional budget implementations should gain institutional effectiveness in achieving a sustainable fiscal balance. The existence of harmony with progress reports in the calculations of the public budget cycle is an expression in a period that becomes effective with the institutional practices of developing countries. Although developed countries currently use some items for different global budget collections, it can be said that a sustainable fiscal balance process makes sense for underdeveloped countries by seeking an institutional financial resource based on institutional fiscal norms (Batabyal and Chowdhury, 2015: 68).

2. POSITION OF PUBLIC INSTITUTIONS IN TERMS OF FINANCIAL STABILITY AND FRAMEWORK OF MUTUAL EFFICIENCY

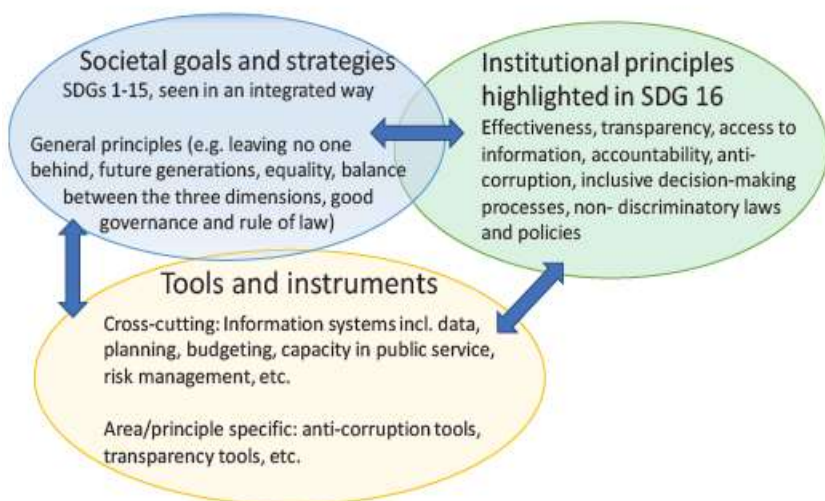
In terms of financial stability, it is possible to express public institutions' principles regarding the sustainability of financial balances primarily with some international norms. We can say that these elements form a starting point with optimal input regarding corporate orientation in information gathering and corporate information sharing. Besides, in this process, corporate approaches to preventing financial leaks and financial corruption at different financial sustainability stages come to the fore during the corporate effectiveness process. Undoubtedly, from an institutional perspective, the budgeting and planning process has an important place in institutional efficiency regarding financial balances (Howcroft, 2006: 262).

2.1. Structural Framework of Public Institutions within the Scope of Financial Purposes

Financial instruments and financial dynamics operating within institutional norms and principles also form an important part of public administration in risk management. Regardless of the stage, the taken strategic fiscal decisions via the determined norms at the corporate level are shaped at the corporate level based on the past reports' elements. For a successful growth in achieving sustainable growth, social participation and civil society participation in the institutional decision-making process in preventing corruption also play an important role in preventing institutional interaction and financial corruption. On the other hand, achieving fiscal sustainability efficiency based on corporate efficiency also includes the dynamics related to transparency in terms of budget. Typically, part of public revenues and public expenditures may be out of the primary budget, primarily in applications. Therefore, it is important to clarify the position of some institutional funds against public revenues and expenses (Acosta, 2013: 97). Possible institutional activities within the framework of weaker impact dynamics will affect the financial stabilization process that causes present some important management problems.

In the process of ensuring public institutions' efficiency, the lack of transparency of the financial dimension of the relations in which public and private financial relations based on financial information take place together in the process creates an important lack of information and inter-institutional disinformation (Ngatikoh et al, 2019: 194). Approaches to improve transparency, especially institutional effectiveness, are called the second generation transparency policy. This phenomenon reveals an activity process based on mutual effective information sharing based on institutional effective policies.

Citizens' activation of self-produced information in public decision-making processes also enables the determination of the dynamics that may cause opportunities for efficiency in institutional mechanisms (Osho and Afolabi, 2014: 49). This approach is an important phenomenon for the sustainability of financial balances based on corporate communication and corruption prevention. It contributes significantly to rational decision-making in the process of public decisions. In Figure 1 below, it is possible to see the public institutions' structural communication efficiency regarding the sustainability of financial efficiency.



Source: United Nations (2019), *United Nations World Public Sector Report 2019-Sustainable Development Goal 16: Focus on Public Institutions*, New York: United Nations Department of Economic and Social Affairs, 2019, p. 3.

Figure 1. Corporate Relationship Effectiveness of Public Institutions in Terms of Financial Purposes

Figure 1 shows the structural position of institutional relations within the scope of the standards defined as SDG16 (Sustainable Development Goals) and formed by the UN organization within the scope of sustainable growth objectives. According to these standards, institutions emerge with three broad sets of concepts within the framework of broadly understandable social norms and legal standards. It is possible to see in Figure 1, the institutional principles emphasized in SDG16 (Sustainable Development Goals) prepared by the UN, which aims at achieving the social goals related to this interaction, which determines how well the institutions for the purposes of sustainable growth work as a whole of institutional relations. It is possible to summarize these three phases of sustainable growth and prevent financial corruption on an institutional basis as follows: The first of these is the determination of social goals and strategies for sustainable economic growth and dividing them into corporate-level responsibility groups. The second is to determine the institutional principles highlighted in SDG16 and provide institutional structuring to understand the effect level of institutional principles for sustainable development (United Nations, 2017: 23). Third, it demonstrates the institutional effectiveness of the tools in which all kinds of support for the revision of the institutions exist in the process.

It is to understand and analyze which result affects the institutions that are effective in achieving development goals. In this context, in the third stage, corporate transparency regarding accountability within the framework of corporate information, access to information, and reviewing new corporate principles comes to the fore. It should be emphasized that within the scope of institutional activities for sustainable economic development, there are also directions for making inclusive decisions and social expectations. In this context, designing effective institutions for economic growth for the society, establishing relationships with social-environmental dimensions and economic dimensions and future has an important place (Wanjuu and Roux, 2017: 3). Besides, bringing organizations to a level to increase their operational efficiency emphasizes the fight against corruption by focusing on budgeting, planning data and information systems, risk management, and awareness-raising.

Because at this level, ensuring an effective public administration in public institutions provides a more concrete activity position but depends on establishing a socio-economic balance with inclusive decision-making and a broader general instrumental structure. To this end, institutions express a set of relationships that include sustainable economic development dynamics, present a clean-transparency organizational environment, and emerge with important structural analysis for the purposes (OECD, 2003: 24). Undoubtedly, the factors for ensuring institutional efficiency within these three categories do not always have the distinctive clarity of the process in terms of establishing clear dynamics in the fight against corruption and making an inclusive decision. There is a need for an absolutely separate organizational, institutional environment that emphasizes these three categories of relationships to overcome financial risks such as corruption and contribute to corporate objectives' fiscal balance policies (OECD, 2017: 60).

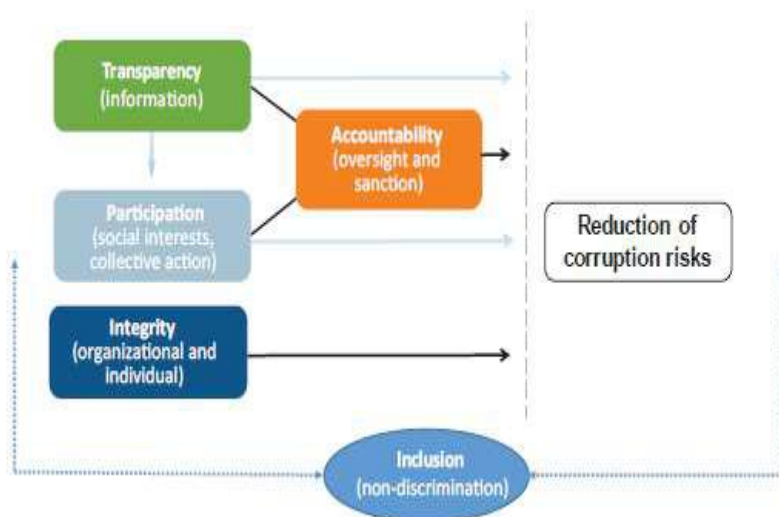
2.2.The Place of Institutional Problematic and Structural Dynamics in The Prevention of Financial Corruption

The level of institutional efficiency for sustainable economic growth undoubtedly includes preventing financial corruption with institutional dynamics, and this scope occurs when institutions include some public and civil elements in accountability, transparency, participation, and decision processes. Since the backbone of good governance is to reduce corruption risks, it is crucial to ensure transparency and accountability through institutional studies to improve governance. In this respect, social policies should encourage public moral integrity, and this feature

preventing corruption is the meaningful element of a participatory process that also stands out in corporate practices. As institutional accountability, the level of accountability reveals an important institutional problem in preventing corruption. The lack of institutional oversight and sanctions significantly reduces corruption costs for the actors in the process, causing corruption to enter an uncontrollable process at the institutional level.

In this context, corporate accountability is based on understanding corporate problematic conditions that encourage and deter corrupt behavior. In other words, ensuring a sustainable economic asset at the corporate efficiency level of corruption occurs when a controlled financial risk process contributes to the economic growth process through accountability mechanisms. Incomplete involvement or prevention of participation in the determination of economic growth strategies at the institutional level further facilitates uncovering corruption. Studies show that the exclusion of related groups during economic growth policies increases the corruption tendency and harms the economic growth process. The tendency towards corruption and development is an important negative factor inversely related to the transparency measures in institutions and prevents the monitoring of external actors' behavior. Besides, the interruption of corporate budget practices in the fight against corruption during the economic growth-oriented budget implementations also indicates a process in which foreign investments are negatively affected. Undoubtedly, the aim here is to prevent high costs and to prevent its negative impact on economic growth at the institutional level by increasing the institutional efficiency regarding sustainable economic growth (European Parliament, 2015: 8).

Institutional central elements of economic development strategies for corporate accountability and anti-corruption include institutional mechanisms that can be automatically activated as institutional standards for budget and fiscal transparency. In this context, making the information publicly available in institutional economic development, the institutional measures are taken for detecting the corruption of economic and social actors, and the practices on this basis constitute the main criteria for the contribution of the economic behaviors. This periodical phenomenon means that the market and investment preferences to the institutional economic growth are significant elements based on sustainability development growth. In Figure 2 below, it is possible to trace the institutional impact dynamics intended to prevent financial corruption in ensuring economic sustainability based on institutional effectiveness:



Source: United Nations (2019), *United Nations World Public Sector Report 2019- Sustainable Development Goal 16: Focus on Public Institutions*, New York: United Nations Department of Economic and Social Affairs, 2019, p. 43.

Figure 2. Institutional Structural Relations and Dynamics in Preventing Financial Corruption

Figure 2 shows the position of structural interrelations at the institutional level in preventing financial corruption. Corporate accountability plays an important role in preventing corruption at the corporate level and positively contributing to a sustainable economy. In other words, prevention of corruption is achieved through corporate-level strategies for corporate controls and accountability mechanisms, either explicitly or indirectly. Undoubtedly, the accountability process also includes the monitoring of corruption processes. In this respect, as the relationship between corruption and economic development increases, it appears that the level of transparency increases in institutional terms.

The emergence of accountability and anti-corruption at the institutional level is directly related to budget and financial transparency. Markets, foreign investment mechanisms, and the international aid process dynamics are also automatically engaged in encouraging the fight against corruption at the institutional level. Making information clearer and positively promoting behavior through transparency, preventing corruption by economic and social actors, and investment choices in the market make important contributions to a sustainable economic process. In cases where institutional level transparency is not sufficient for

sustainable economic development, various enforcement and corruption costs will inevitably increase. In this respect, encouraging participation in the corporate public decision-making process and carrying this phenomenon to a broader level within the scope of accountability provides a critical quality standard in the fight against corruption. An institutional quality standard encourages medium and long-term democratic institutional structuring. It contributes to the fact that accountability becomes a more effective social phenomenon due to the participation of civil society. This issue, which is examined under the name of social responsibility in the fight against corruption, has to create a whole together with transparency and accountability in the same process and increase the participation potential to improve public services and reduce poverty.

It demonstrates that addressing anti-corruption efforts within the scope of public and non-governmental organizations to control corruption has a positive incentive effect for individuals. In this respect, removing cost-benefit analyses from a corrupt behavior pattern at the institutional level and the existence of an institutional rational accounting system means to promote corporate political integrity and pull anti-corruption mechanisms into more normative constraints. Fair and transparent accountability of institutional agencies in preventing corruption implies a process that includes citizen participation in transparency with impartial powers. It means an essential public incentive and contribution to the economic development process. A negative process in which corporate effectiveness is tried to be affected by interest groups in this context, by creating policies, on the contrary, makes the target corruption process far from being a deterrent and makes accountability meaningless (Dür and Bievre, 2007: 9).

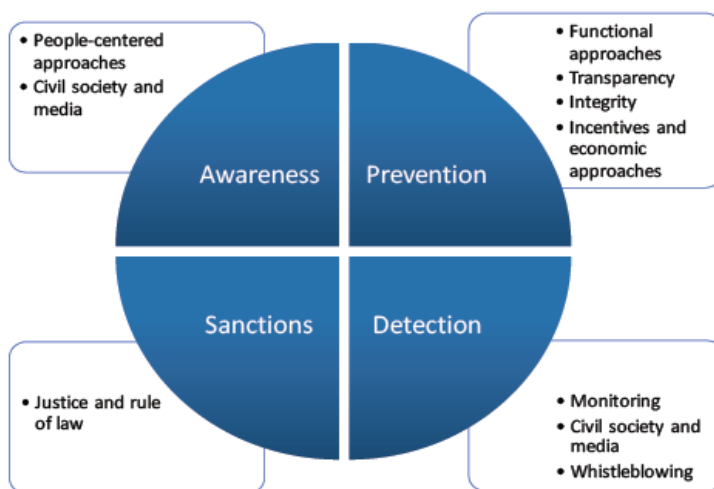
3. THE SIZE OF INSTITUTIONAL APPROACHES IN PREVENTING FINANCIAL CORRUPTION IN TERMS OF SUSTAINABLE FINANCIAL BALANCES

For sustainable financial balances, preventive measures to prevent financial corruption at the corporate level constitute the central theme of corporate approaches in the process. Institutions include a structure that can contribute to institutional accountability and establish preventive measures and reformist approaches to management using structural actors both inside and outside public institutions, administrative rules, and procedures that reveal financial corruption prevention. It appears that corporate integrity, transparency against possible conflicts of interest and ethical deviations, and a surveillance process in which non-governmental organizations participate in the same process increase institutional

efficiency with dynamics. In this context, perception tools that reveal corruption practices are essential in terms of expressing corporate dynamics.

To make the pressures of institutions based on evaluation and sanctions more effective, creating opportunity grounds for preventing financial corruption and improving the process with possible corrective actions are among the suggested objectives of the institutional dynamics. These tools also include internal and external controls and decision-making mechanisms that evaluate possible civil society grievance mechanisms for corruption and information mechanisms for illegal or corrupt activities. In consequence, corruption-related sanctions and credible penalties make this process meaningful with consequential effects. The fact that the necessary measures against violating the rules bring penal sanctions to the forefront constitutes the structural aspect of institutional actions and sanctions. This institutional structure, which is based on the formation of political sanctions from awareness strategies that have an important place in this institutional process, aims to reflect a process that creates social awareness against the corruption that causes high social costs ((Doh et al, 2003: 116).

In terms of sustainable financial balances, determining financial corruption and initiating an education process by conveying the risks of punishing corruption to the society through corporate campaigns are among these objectives. Implementing corporate policies and regulations regarding the importance of corruption within the framework of corporate ethical norms with structural actors in the fight against corruption has a meaningful place for corporate-social sharing in the fight against corruption. Undoubtedly, among the social policies of institutions aimed at maintaining the effectiveness of a corporate fiscal balance, there are also target institutional approaches that can be supported by public education, media campaigns, and social arrangements. The aim here is to provide and create a culture of social zero-tolerance against corruption with public commitments within institutional activities. Figure 3 below shows the approach and framework of the institutional dynamics in preventing financial corruption:



Source: United Nations (2019), *United Nations World Public Sector Report 2019-Sustainable Development Goal 16: Focus on Public Institutions*, New York: United Nations Department of Economic and Social Affairs, 2019, p. 45.

Figure 3. The Institutional Effect Dynamics in Terms of Financial Balances to Anti-Corruption

As can be seen in Figure 3, it appears that the institutional dynamics are targeted with a corporate professional approach in preventing corruption. For a sustainable economic structure, encouraging social positive behaviors and a fair existence of holistic policies in the process are indispensable elements of this issue. A structure in which justice and legal rules are effective in the process reveals an important information transfer mechanism for determining non-governmental organizations and monitoring corruption processes. Undoubtedly, the importance of mediated impressions on this issue is undeniably intended to aim consciousness light corruption behaviors to societies. As we mentioned before, establishing norms and policies for sanctions in preventing corruption and making the necessary arrangements constitute a critical institutional support ground in ensuring social participation in the fight against corruption.

The primary purpose here is to gain a culture of zero-tolerance against social corruption on a societal basis. The official sanctions with regulations find their place in the process as weak practices in participatory politics where they do not see a social response. In this respect, it is meaningful to put forward the citizen-centered approach and

functional approaches of non-governmental organizations with participatory, holistic policies to develop an essential sense of justice. In other words, there is an obligation to monitor the corporate impact dynamics in the process, together with the responsibilities regarding the social cohesion regarding the prevention and suggestion of corruption by the concerned society. In this respect, it is crucial for social development to monitor the process and include the forms of corruption determined by non-governmental organizations' contribution to be adopted by the society. At this point, institutional-level approaches for sustainable economic growth and financial balances should be specially mentioned in the scope of terms of specific dynamics (Popov, 2017: 13).

In particular, it should not be overlooked that there are multiple forms of possible corruption in developing effective anti-corruption and increasing institutional effectiveness. Prevention of corruption at the institutional level begins with the prioritization of risk focus. This functional approach makes it necessary to analyze the characteristics of the sectors of corruption practices that take different forms in different sectors and the infrastructures that may arise from security gaps at the institutional level. Corruptions can also occur between public legal entities depending on various factors in the environment where public institutions operate (Soreide, 2015: 18). In this respect, anti-corruption strategies should be designed as corporate strategies based on a sound risk assessment. The elements related to corruption at the corporate level should be clarified. This functional institutionalization is realized by evaluating all statistical data and data related to all kinds of information sources at the institutional level.

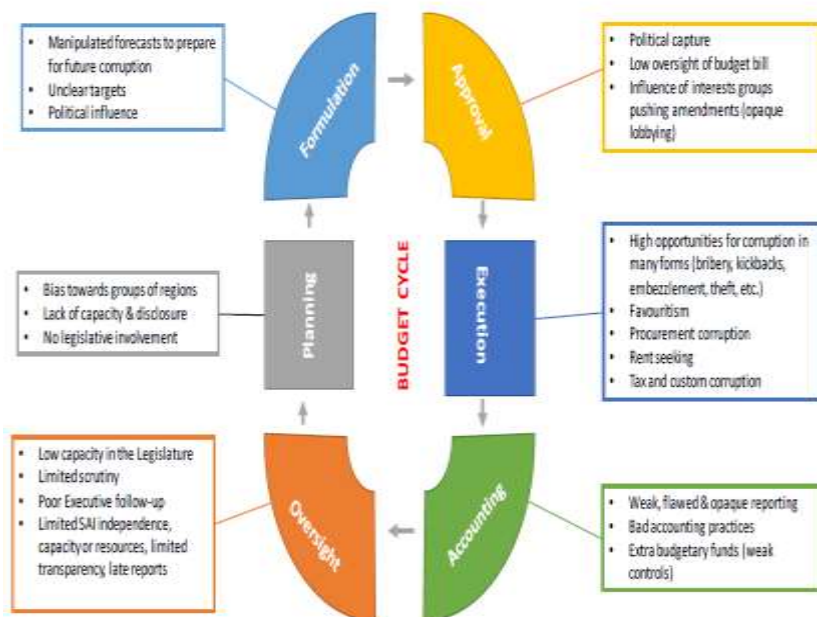
4. BUDGET DIMENSION OF CORPORATE EFFECTIVENESS AND DISCUSSIONS ON ANTI-FINANCIAL CORRUPTION

A public budget weakens the government's growth, with possible corruption options in public institutions and thus puts the provision of services into a negative process. The unequal structure of expenditures within the scope of the central public budget, which hinders public goods and socio-economic development, is also expressed in a failed planning process that results from corruption in budget management and weakens the structure of resource allocation (Peters, 2007: 25). It is inevitable to take some measures regarding corruption operations based on public expenditures in the budgeting process, especially for expenditure-weighted budget items. Potential sources of institutional corruption arise from budget deviations in public institutions, where overly exaggerated expenditure items lead to corruption practices. This process, in which

budget implementations, which are in practice at the level of public expenditures, become inconsistent, reveals how to budget corruption within the scope of scarce resources creates negative effects on sustainable fiscal balances and causes even greater fiscal deviations (Drüke, 2007: 70). We generally examine the anti-corruption options within the budgeting process in two scopes. The first is how to address corruption risks and vulnerabilities at different stages of the budgeting process.

This stage usually means identifying and expressing spending-oriented corruption risks. The second important stage in preventing corruption in terms of institutionally sustainable financial balances based on public budgets is methodological applications. Approaches to corruption can turn into some important risk factors with some methodological difficulties. Public budgets do not have a standard methodology to combat corruption and are also considered an important risk source, especially in developing countries (Isaksen, 2005: 4). The concerning of the budget process, together with its systemic, political, and economic factors and the transparency and openness of the public sector, depending on important budgeting standards, should be concerned.

On the other hand, the complexity of financial plans and the contradictions in budget practices and deviations from standards stem from the budgeting process's internal political dynamics as fiscal corruption resources. However, it should be emphasized here that the prevention of institutional corruption based on the public budget is realized by controlling the expenditure items on the institutions as an external audit tool by the budget and the internal control of public expenditures. Even the demands of institutional functional implementation units for extra budgets related to service provision in the public domain also need to be analyzed in terms of economic values regarding monitoring on a budget basis. In Figure 4 below, it is possible to see the structural budget cycle regarding possible corruption as an institutional structure within the framework of sustainable financial balances.



Source: United Nations (2019), *United Nations World Public Sector Report 2019-Sustainable Development Goal 16: Focus on Public Institutions*, New York: United Nations Department of Economic and Social Affairs, 2019, p. 107.

Figure 4. Budget Dimension of Corporate Effectiveness in The Anti-Corruption Process

As seen in Figure 4, in the planning stage, which constitutes the first stage of the budgeting process there may be a process of corruption in which some interest groups can inappropriately turn public resources into opportunities to benefit. In terms of sustainable financial balances, the priority stage of corporate budget studies is to determine the planning and institutional functions on the budget. Having social approval in the imposed implementation stages plays an important role at this stage, and it is seen that accountability after the implementation constitutes an important basis of budget balance. The coordination activities of the institutional units are also meaningful with the superficial relationship of these institutional practices with each other at this stage regarding the implementation process related to public budget cyclical. In brief, the process of implementing the public budget at the institutional level, it reveals important opportunities in identifying corruption and understanding each corruption focus. The ways in which financial corruption occurs and monitoring the processes of detecting corruption

constitute an important internal mechanism institutionally at the follow-up stages of the budget as an important financial phenomenon (McCourt, 2007: 46).

The clarity of the position of the institutional union on tax and other financial practices, the process of the public budget and its accountability afterwards reveal an important institutional unity. At this stage, the budget implementation process is a meaningful implementation form of a corporate financial activity that sets an important institutional holistic mechanism in the fight against financial corruption. The point to be emphasized here is that possible weaknesses in the legislative process at the approval stage of the budget process may create opportunities for corruption. Implementation of the legislative process without ordinary controls can lead to security control gaps and lead to corruption. At this stage, relevant interest groups, businesses and political parties can use these corrupt practices to their advantage. Legislators have to preserve budget allocation mechanisms and subsidies to protect the budget proposal against these possible changes. Possible political risks are higher during the implementation phase, resulting in the budget execution phase also finding a place in implementation as the most vulnerable phase. These gaps in insecurity create a basis for supporting corruption, and also the presence of a high level of discretion in the implementation phase can be seen as an important cost-wasteful expenditures rise. In addition, institutional extraordinary authorizations create an important risk process regarding the rents used for individuals to benefit from the resources and allowances used by public investment projects (Department for International Development, 2015: 36).

An important handicap of changing the budget without executive and legislative approval within the scope of the budget execution process emerges at this point. In a process in which expenditure control is bypassed, it is an important precautionary way to subject the financial reports to internal audit by taking into account the expenditures of state institutions and to consolidate the corporate budgets and to prepare a budget implementation report. The integration of accountability and reporting mechanism with erroneous and ineffective reporting is evolving into a process that weakens the accounting practices regarding the budget and disables public accounts within the scope of the budget from being independent (Glaser, 2007: 120). The problem of independence of institutions such as the Supreme Audit Board, the deficiencies in capacity and resource utilization, and the limited accessibility of cooperation audit reports on insufficient parliamentary oversight and state sharing constitute an important handicap. In addition, another point that the emergence of corruption and security gaps in extra-budgetary issues is

related to corporate budget practices is financial corruptions on the basis of fund usage.

In the planning of public activities, such practices may be relevant for specific groups such as political and ethnic groups and geographical areas. This allocation process creates significant corruption focal points in an environment of limited transparency and accountability in how the executive prepares it. At this stage, handling planning data outside a specific budget formulation and having a bias that can serve interest groups rather than allowing financial estimates to be followed is an essential cause of institutional budget corruption fragility (Zaum, 2013: 3). This process, in which corporate budget expenditures are negatively affected, undoubtedly represents a negative process in which budget proposals are in question in a closed environment and weak decisions. Such an approach, far from controlled spending to address potential vulnerabilities, is considered a reason for financial fragility resulting from institutional practices and the main reason for deviation from economic targets. We need to emphasize that the corruption risks within the scope of an institutional public institution budget have changed according to different stages of the budgeting process. In other words, from an institutional perspective, it is understood that security gaps and corruption opportunities in the public budget further increase the vulnerabilities of corruption. On the other hand, different orientation of different political focuses at the financing and budgeting of the sectors also makes it difficult to control the budgeting process, which is one of the important reasons for corruption processes. In this process, which is also called budget deterioration, it appears that the fragilities in the financial corruption cycle in the budget implementations of state institutions and regional implementations increase even more. Besides, this process of institutional budget relations, which certain interest groups largely capture, refers to the process of public decisions related to the budget process, in which the actions of a public administration evolve into a negative process (Chayes, 2016: 3).

5. CONCLUSION

For public institutions, the existence of financial corruption is an institutional expression of a process in which public deficits cannot be controlled, and access to public services and the distribution of public resources are negatively affected, as well as cause huge economic losses. Wasting of public resources, negative public human development at the institutional level, and the reduction of institutional capacities to a smaller level are also a significant result of corruption in the relevant process. Undoubtedly, the important institutional purposes in maintaining a

financial efficiency at the institutional level are primarily based on the principle of creating a social financial consciousness and a social awareness of reaction against corruption. Creating different corporate awareness regarding all kinds of applications in all corporate applications is shaped as an important task on institutions. In the prevention of corruption, corporate functional approaches gain effectiveness based on transparency, public integrity and mutually equivalent sanctions in corporate practices. It is undoubtedly a form of corruption prevention based on the principles of sanctions that the corporate legal rules have a more effective place in practice in promoting economic approaches and preventing corruption. In these practices, public support of non-governmental organizations and trainings of people-oriented approaches to increase corruption awareness have an important place in the fight against corruption.

Within the scope of a sustainable fiscal balance, these strategies and plans reveal an important institutional chain to reach the results of public expenditures and applications related to expenditures. In this respect, institutional effectiveness plays an important role in allocating public resources and measuring available financial resources' effectiveness. What kind of a change process the institutional effectiveness has entered in the medium and long term refers to the association of national budget processes with the next years in practice. It is a fact that it is institutionally inevitable to support the process with national budgets, including development goals in ensuring a sustainable fiscal balance position in national budget processes. Possible sectoral changes in both developed and developing countries are in a structure that is directly affected by the corporate level budget applications. In other words, the sustainability of the aimed financial balances turns into a corporate activity by integrating with corporate finance processes. Undoubtedly, central public budget and public institution budgets are among the most important institutional financial structures that have public institutional effectiveness in maintaining corporate fiscal balances. The fact that public institution budgets have an important institutional efficiency from the budgeting process to the implementation process creates an important monitoring, auditing and enforcement effect in the fight against corruption.

As an institution, the most important feature of the sanctions of the budgets at this stage is that it creates an important monitoring-control mechanism without revealing security gaps in the budgeting process and that the financial monitoring process and political efficiency. It is main aiming that can prevent financial corruption of possible interest groups are brought to the institutions as institutional effective prevent activities

in this process. It is seen that the phenomenon of transparency within the scope of the public budget is extremely important as an institutional structure in preventing corruption. Although this phenomenon is aimed at informing ordinary citizens, it also means that it is included in the process in order to understand the budget implementations of the groups subject to the budget. However, it appears that handling the accuracy and comparability process within the scope of the budget with certain standards has a more important place for analysis and feedback processes. While corporate practices benefit from an infrastructure utilizing regulatory systems in preventing corruption, it is understood that the fact of tax expenditures related to tax practices within the scope of the budget comes to the fore in the issue of corruption. Here, it is inevitable that the primary objective of the budget as an institutional structure should be revealed, which means that there is a process without legal fragility and therefore security gaps. This phenomenon, which is seen as an important cause of financial corruption in corporate practices, appears to be one of the most difficult to prevent in practice.

REFERENCES

- Acosta, Andrés Mejía (2013), “The Impact and Effectiveness of Accountability and Transparency Initiatives: The Governance of Natural Resources”, *Development Policy Review*, 31(S1), pp. 89-105.
- Batabyal, Sourav and Chowdhury, Abdur (2015), “Curbing Corruption, Financial Development and Income Inequality”, *Progress in Development Studies*, 15(1), pp. 49–72.
- Bochańczyk-Kupka, Dominika and Pęciak, Renata (2015), “Institutions in The Context of Sustainable Development”, *The MacrotHEME Review: A Multidisciplinary Journal of Global Macro Trends*, 4(5), Summer 2015, pp. 29-41.
- Chayes, Sarah (2016), *Corruption and State Fragility*, Fragility Study Group-Policy Brief, No. 1, Washington. D.C.: Fragility Study Group, September 2016.
- Department for International Development (2015), *Why Corruption Matters: Understanding Causes, Effects and How to Address Them: Evidence Paper on Corruption*, London: Department for International Development Publishing, January 2015.
- Doh, Jonathan P.; Rodriguez, Peter; Uhlenbruck, Klaus; Collins, Jamie, and Eden, Lorraine (2003), “Coping with Corruption in Foreign Markets”, *Academy of Management Executive*, 17(3), pp. 114-127.

- Drücke, Helmut (2007), “Can E-Government Make Public Governance More Accountable?”, in *Performance Accountability and Combating Corruption: Public Sector Governance and Accountability Series*, Anwar Shah (Ed.), Washington D.C.: The World Bank Publishing, 2007.
- Dür, Andreas and Bievre, Dirk De (2007), “The Question of Interest Group Influence”, *Journal of Public Policies*, 27(01), pp. 1-12.
- European Parliament (2015), *Cost of Corruption in Developing Countries – How Effectively is Aid Being Spent?*, Brussels: European Parliament Directorate General for External Policies Policy Department, April 2015.
- Glaser, Mark. A. (2007), “Networks and Collaborative Solutions to Performance Measurement and Improvement in Sub-Saharan Africa”, in *Performance Accountability and Combating Corruption: Public Sector Governance and Accountability Series*, Anwar Shah (Ed.), Washington D.C.: The World Bank Publishing, 2007.
- Howcroft, Douglas (2006), “Spreadsheets and The Financial Planning Process: A Case Study of Resistance To Change”, *Journal of Accounting and Organizational Change*, 2(3), pp. 248-280.
- Isaksen, Jan (2005), *The Budget Process and Corruption*, U4 Anti-Corruption Resource Centre, Bergen: CHR. Michelsen Institute, 2005.
- McCourt, Willy (2007), “Efficiency, Integrity, and Capacity: An Expanded Agenda for Public Management?”, in *Performance Accountability and Combating Corruption: Public Sector Governance and Accountability Series*, Anwar Shah (Ed.), Washington D.C.: The World Bank Publishing, 2007.
- Ngatikoh, Siti; Kumorotomo, Wahyudi and Retnandari, Nunuk Dwi (2019), “Transparency in Government: A Review on The Failures of Corruption Prevention in Indonesia”, *Advances in Economics, Business and Management Research*, Vol. 122, pp. 181-200.
- OECD (2014), *Public Sector Transparency and the International Investor*, Paris: OECD Publishing, 2014.
- OECD (2017), *OECD Public Governance Reviews: Internal Control and Risk Management for Public Integrity in the Middle East and North Africa*, Paris: OECD Publishing, 2017.
- Olken, Benjamin A. and Pande, Rohini (2011), *Corruption In Developing Countries*, *NBER Working Paper Series*, Working Paper 17398,

Cambridge: National Bureau of Economic Research (NBER), September 2011.

Osho, Augustine E. and Afolabi, Matthew B. (2014), “The effects and effectiveness of Accountability and Transparency in Government Sectors”, *Journal of Business and Management*, 16(4), pp. 46-54.

Peters, B. Guy (2007), “Performance-Based Accountability”, in *Performance Accountability and Combating Corruption: Public Sector Governance and Accountability Series*, Anwar Shah (Ed.), Washington D.C.: The World Bank Publishing, 2007.

Popov, Alexander (2017), *Evidence on Finance and Economic Growth*, European Central Bank Working Paper No. 2115, Frankfurt am Main: European Central Bank, December 2017.

Soreide, Tina (2015), *Corruption in State Administration*, https://www.researchgate.net/publication/280697801_Corruption_in_State_Administration (Accessed 21.02.2021).

United Nations (2017), *Institutional and Coordination Mechanisms Guidance Note on Facilitating Integration and Coherence for SDG Implementation*, New York: United Nations Development Programme, 2017.

United Nations (2019), *United Nations World Public Sector Report 2019- Sustainable Development Goal 16: Focus on Public Institutions*, New York: United Nations Department of Economic and Social Affairs, 2019.

Wanjuu, Lazarus Z. and Roux, Pierre Le (2017), “Economic Institutions and Economic Growth: Empirical Evidence from The Economic Community of West African States”, *South African Journal of Economic and Management Sciences*, 20(1), pp. 1-10.

Zaum, Dominik (2013), *Political Economies of Corruption in Fragile and Conflict-Affected States: Nuancing The Picture*, U4 Brief-U4 Anti-Corruption Resource Centre, Bergen: CHR. Michelsen Institute, 2013.

CHAPTER III

SPATIAL DIMENSION OF COMPETITION: COMPETITION OF CITIES

Asst. Prof. Canan Zehra ÇAVUŞ

Çanakkale Onsekiz Mart University, Çanakkale, Turkey, cekrem@comu.edu.tr
ORCID iD: 0000-0002-9544-4901

*“...competition...
We know one when we see one, but it is difficult to define an elephant”.
(Iain Begg, 1999: p795)*

1. Introduction

Globalization, which is economically based but includes a spatial, political, social, technological and cultural multidimensional process, affects all societies in different ways. For this reason, the concept of globalization is defined by different branches of science in different aspects. McLuhan (1964:185) defined the concept of “*Global Village*” by stating that advances in communication technologies cause the world to shrink (it is known that the concept of globalization was first used by McLuhan); Giddens (2012:84) emphasized that although economic forces are a part of globalization, defining globalization only economically would be incomplete, instead, many processes (political, social, economic etc.) should be evaluated together in order to understand globalization. Harvey (1999:230) approaches globalization in terms of time and space and suggests that production is formed depending on local conditions, while consumption is made on a global scale. Sassen (1991) emphasized the economic dimension of globalization, stressing that this dimension crosses geographical boundaries as it relates to issues such as international investment and trade. Castells (URL1) focuses on economic globalization that can be based on communication and information technologies that remove the distance between countries. It is noteworthy that the definition of globalization, for which no unity can be achieved, looks at the concept of globalization within the framework of their field of expertise. However, it can be clearly said that while the world shrinks with the effect of globalization, human settlements gradually grow.

In terms of the historical development of the word *city* and *urban* in English, *citta* in Italian, *cite* in French, *ciudad* in Spanish, *stad* in German, it is seen that it is generally matched with the concept of civilization. Various definitions for different purposes are made by different branches of science for the word city, which has the same meaning as the word city. Especially after the industrial revolution, due to the change in the form and

functions of urban spaces, the content of the city concept has changed and this concept has entered the field of study of many disciplines (Topal, 2004:277). For example, while geographers define the city; space-society interaction and population structure, political scientists, management styles, sociologists have made definitions that take into account social structure and relations, social changes, economists production relations and economic structure (Açıkgöz, 2007:61). City: residential area where most of the population is dealing with trade, industry, service or administration, and generally without agricultural activities (URL2). Weber defines the settlements surrounded by walls, dealing with trade other than agricultural production, having a unique and partly autonomous local court, displaying unity and internal consistency within the society as cities (Armağan, 1999:537). In a similar way, Keleş (1973:7) defines a city where the majority of the population is engaged in non-agricultural production, where integrity is ensured in inter-people relations, and where a continuous social development is shown. R. Ezra Park, who systematically analyzed cities for the first time, considered the city as an organism with a life and culture of its own, or as a social forest where people in a struggle for survival are in constant competition. According to Ibn Khaldun, one of the leading thinkers of the world, who is also known as the political geographer of the Middle Ages, cities are; They are the places where civilization was born and developed, where it expanded, spread, shaped and embodied for the benefit of human beings. A similar definition was made by Bumin. According to him, the city:

“... it is a culture, knowledge, philosophy, politics, history, economy; It is the place where people can develop and realize themselves...” (Topal, 2004:285).

Competition, as an integral part of human life, is one of the concepts that are constantly up-to-date. From companies to organizations trying to meet the needs of society, from cities to countries, competition is everywhere. Krugman (1994) is among those who argue most effectively that there is no geographical dimension to competitiveness. Porter (1990; 1995; 2003) opposes this view and argues that there is also competition between countries, that this competition occurs as a reflection of political interventions and is separated from competition between firms. Currently, the common view is that spatial competition exists, cities are also now involved in competition, and every year the competition between cities is increasing (Begg,1999:796). Globalization has made cities spatial, demographic, economic, cultural, political, international relations, etc. it affects many areas. Economic globalization and the development of information technologies have brought cities to an important position in the global economy. Although it is believed that the borders of the country have lost their importance with the development of transport and

communication opportunities in this process, it is seen that at the local level, firms tend to gather. Globalization is the most important dynamic behind the competition of cities. Increasing differences in social, economic and environmental issues come to the fore when cities achieve competitive superiority and achieve economic success. Contrary to views such as “*economy without space*” and “*the end of geography*”, it is seen that cities have different characteristics and are ahead of others by specializing in different areas (Akturan & Oğuztimur, 2016:118).

2. Competition and Competitiveness

Competitiveness, one of the most widely used concepts today, is used in the sense that different spatial units increase their share of economic performance through efficiency, R&D and innovation in a global economy where rules and restrictions are relaxed, thanks to cities success in creating income, employment and new business areas (Budd & Hirmis, 2004:1021-1022; Turok, 2004:1070). Competition can also be described as a whole of competition events conducted against competitors in order to gain the upper hand. With globalization, the rapid disappearance of borders between countries, the acceleration of technological developments in the field of transport and communication, the concept of competitiveness has begun to take place at the top of the world agenda. Firms, sectors, or countries had to compete to create value and not lose their current status, rather than increase their prosperity (Porter, 2010:9). From Adam Smith to Michael Porter, the concept of competition has been used for the state of businesses and countries. Porter used his knowledge from years of studies on the competitive advantages of companies, sectors and countries in city competitiveness in 1995. According to Porter, competitive superiority can be created and sustained in a localized process, because the subject that excels competition is the “*elements of talent*” that the nation, region, or city have (Porter, 1995:57). Although there is a widespread belief that the phenomenon of competitiveness is an issue that concerns micro-level firms today, countries, regions and even cities compete with each other to increase their competitiveness. Cities are turning to new regulations and policies to be at the forefront of competition among themselves and to increase their performance and competitiveness. With competitiveness and economic development, cities have increasingly become “*key spatial scales*” (Parkinson&Harding, 1995).

Competitiveness can be defined as the ability of regions or cities to produce goods and services for international markets and create high and sustainable income levels and employment opportunities within the region (Alkin, Bulu & Kaya, 2007:222). It is frequently used in economic and commercial matters. The globalization process has led to the formation of

an economic structure in which not only firms but also cities and regions are forced to be more competitive. While companies give priority to productivity and profitability; regional competitiveness, employment levels, workforce quality, entrepreneurship, companies and inter-sectoral relations are also influenced by social variables (Huovari, Kangasharju & Alanen, 2001:1). However, efficient use of local resources increases regional or city competitiveness. Among the studies that determine the foundations of competitiveness at the level of geographical units, Linnamaa (1999:26), Sotarauta and Linnamaa (1998:3), Sotarauta and Linnamaa (1998:3), working in the field of urban science, focused on six factors that determine competitive cities: Transport and information infrastructure, sectoral production, structure (clusters), hosting successful companies, human resources, quality of life environment, institutions and effective policy networks and membership to networks (Figure 1).

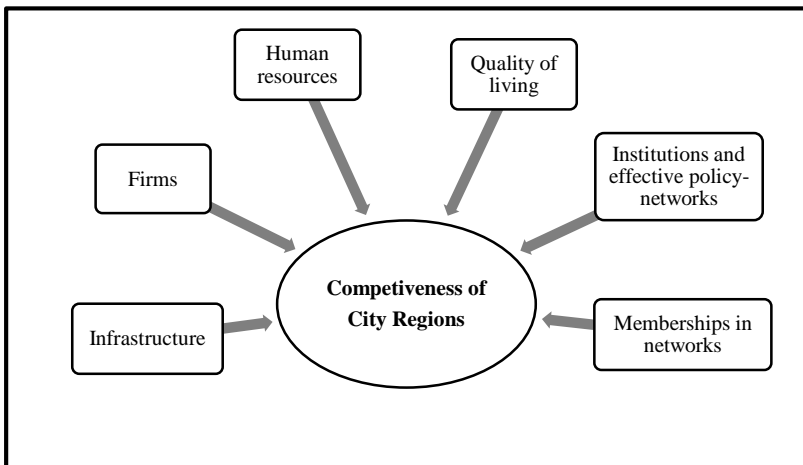


Fig. 1 The Elements of Competitiveness of City Regions (Linnamaa, 1999)

Camagni (2002:2398) mentioned that human, social and relational capital wealth is a source of competitiveness of regions with the prerequisite of ensuring stability in employment and contributing to the increase in local prosperity. The number of firms with foreign capital is also evaluated in index studies as a variable reflecting the competitiveness of the regions (Albayrak&Erkut,2010:141). Beceren (2004:292) summarized the factors determining regional competitiveness in two groups: economic and immeasurable strategic factors that can be measured using statistical data. Bulu (2011) deals with the development process of the Turkish City Competition Index (CCI). A study by the International Competitiveness Research Institute (URAK) considered competitive city index as the collection of 42 variables. These variables are related to the underlying factors of city competitiveness in Turkey and used to calculate

the competitiveness of 81 Turkish cities. In this study, the competitiveness of Provinces was measured by 4 main indices-human capital and life quality, branding skill and innovation, trade skill and production potential, accessibility and 42 variables related to these indices (Bulu, 2011:270) (Table 1). City competitiveness is a concept that has found a lot of place in both literature and practice, especially in the last 20 years.

Table 1 Selected Literature on Competitiveness and City Competitiveness

Source	Spatial Scale	Determinants
Porter (1990; 1995)	City-Region-Country	Efficiency, clustering, technological leadership and public-private sector cooperation, quality of life, clustering, technological leadership and public-private sector partnership.
Krugman (1994)	Firm	Market share, productivity, productivity
Jensen-Butler (1999)	City	Transportation, communication, electricity and water infrastructure, efficient city governance, capacity of R & D activities, position of education and Human Resources quality in national and international city hierarchy importance of human resources and corporate/cultural environment.
Sotarauta&Linnamaa (1998)	City	Infrastructure, membership in networks, quality of life, institutions, effective policy networks, hosting successful companies.
Begg (1999)	City	Revenue growth
Cheshire (1999)		Mobile investments, creating new business and market environment
Huovari Kangasharju, & Alanen (2001)	City	Human capital, innovation, aggregation and accessibility
Barca, Coşkun & Altunışık (2002)	City	External elements: factor conditions, strategic settlement and clusters Internal elements: local resources and capabilities, as culture, historical heritage and entrepreneurial ability
Gordon (2002)	City	Ranking of cities with 55 variables depending on the main economic, social and environmental dimension
Malecki (2002)	City-Region	Information production, information exchange, technology sharing
Porter (2003)	City	Efficiency
Turok (2004)	City	Efficient workforce, private sector investment, Sunday opportunities, highly educated human capital

Albayrak&Erkut (2006)	City	Human capital and quality of life, trade skills, branding skills and innovation, accessibility human resources, technology density and use
Alkin, Bulu &Kaya (2007)	City	Human capital and quality of life, trade skills, branding skills and innovation, accessibility
Hu, Blakely & Zhou (2013)	City	Economic and non-economic dimensions in measuring city competitiveness: livability and attractiveness, environmental sustainability, accessibility, government effects, creativity and difference

(Source: created by the author)

3. The Spatial Dimension of Competition and City Competition

City competitiveness is spatial competitiveness, where competitiveness emerges as a different dimension and the positions of cities in international and national arena are determined according to different indices. The spatial dimension of competitiveness has become a highly studied topic in the last decades. Space competition by Storper (1995):

“...define it as the ability of an economy to attract and maintain firms with stable or rising market shares in an activity...” (Parkinson et al, 2003:199).

Globalization has revealed the importance of city competition in a period where the borders of the country are gradually losing value together with the rapid development in information technologies and the rapid change in the economic structure. Since the 1980s, in many researches on the technological and economic performance of companies, it is stated that the role of space has been rediscovered (Storper, 1995) and the country borders have lost their importance and regional and city competition has been brought to the agenda (Turok, 2004:1070). Spatial competition indicates that a region is in direct or indirect competition with others in terms of economic activities, competition is particularly related to attracting mobile investments, however, the issue of increasing their share in the market in which existing business circles or creating new businesses and markets is also related to spatial competition. (Cheshire, 1999:843). Again, in many studies, it has been suggested that industrial competitiveness is getting stronger, but also geographically localized and the spatial role is restructured. Contribution of space to competitiveness with glocalization, edge cities, new industrial districts, agglomeration economies, creative city, innovative city, learning city It is emphasized that visions such as city) have become priority and important for city politicians.

Although there is no accepted common definition of city competition, it can be defined as the degree to which a city produces goods and services

that will meet the needs of international markets under free and fair market conditions, simultaneously with the protection and development of the real income of the local population. Cities, which are called units of economic growth, productivity and innovation, are increasingly competing with each other at different levels. Recently, cities have begun to question whether they are engaged in the right activities in terms of competitiveness (Begg, 1999:795). The contribution of competitiveness to local development is fiercely driven by cities to have a more entrepreneurial stance and to strive to be the best of their regions; even free capital makes focusing the attention of the city's locals and visitors a priority goal (Harvey, 1989:10). Since a city has better values in terms of various features such as economic, social, cultural, political, historical, geographical location compared to others, and becomes a centre of attraction is expressed as city competitiveness (Eroğlu & Yalçın, 2014:19). The concept of city development/improvement gradually leaves its place to the concept of *city competitiveness*, which includes development and development. In this respect, it seems possible to talk about a paradigm shift. An important reason underlying this paradigm shift is that cities become an important tool in determining competitive advantage (Kresl & Singh, 1999:1026). In the new global market, in the race environment accelerated by the knowledge-based economy, it is increasingly emphasized in recent studies that nations, regions and cities must be competitive in order to survive. Especially in recent years, both political (Core Cities Working Group, 2004; Department of the Environment, Transport and the Regions, 2000) and academics (Hutchins and Parkinson, 2005; Parkinson et al., 2003) showed an increasing interest. Budd and Hirmis (2004:1021) draw attention to six features in the measurement of city competitiveness, which differ significantly from competitiveness at the national level. These are:

- * High skill and high-income job opportunities,
- * Transition to the production of environmentally friendly, harmless products and services,
- * Focus on the production of products and services with demanded characteristics,
- * Compliance with economic growth rates to achieve full employment,
- * Ensuring specialization in activities in which control is kept in mind for the future,
- * Strengthening position in city hierarchy.

In researches on the competitive capacity of cities, besides being the nodal point of international economic relations and business connections, expanding and diversifying the economic base instead of narrow specialization, increasing the skill level of the population and creating job opportunities that cover the social structure; governance factors,

organizational capacity or institutional capacity are also identified as a basic condition that increases the competitiveness of the city. Harvey (1989:9) mentions the importance of the conditions depending on the market with which the city will compete. These different markets: It consists of *production investments* (social and physical infrastructure, etc.), *consumption expenditures* (culture and entertainment corners, etc.), *command and control functions* (communication infrastructure, etc.) and *government spending*. *Infrastructure, network membership, quality of life, institutions, effective policy networks, hosting successful companies* are among the basic characteristics of competitive cities (Sotarauta and Linnamaa, 1998:3). Therefore, the characteristics of cities change the competition levels of cities. Nowadays, cities have become places that compete with each other or have to compete (Zeren, 2012:95). Speaking at the conference entitled Urban21 in Berlin in 2000, Peter Hall stated that cities should do everything in the best way to be better than others with the slogan "*One step ahead*" (Klaus, 2004:1). Due to the changes and developments in the world, the form of competition has changed and nowadays, cities have become the drivers of economic and social development and national competitiveness (NCC, 2009:5). While the role of countries is gradually decreasing, the role of local governments has started to increase (Dunning, 1995). It includes the quality of life among the scopes of national and urban competitiveness, and the firm focusing narrowly on profit and market share is broader than competitiveness (Shen, 2004:20-24) (Figure 2).



Fig. 2 Relationship between Firm, Sectoral, City and National Competitiveness (Shen, 2004)

Determining the right strategies for cities to achieve their goals in their struggle with a more competitive production structure is only possible with the correct analysis of the sources of existing competitive power. Every city should be able to develop tools to design and implement policies that meet their needs. In addition, the tendency of population and economic activities to accumulate in cities as a result of migration from rural areas to cities will increase the risks such as traffic congestion, air, water and environmental pollution, and increase in land prices, especially in metropolitan areas. In addition, the necessary support will be provided to the projects determined in line with the resources and needs of the cities for the competition of the cities, and more efficient and effective use of the supports to be transferred to the projects that will not bring results will be provided. Gordon (2002: 36) stated that cities do not need to be successful in terms of competition in all areas and that cities can compete in any area they want according to their priorities and resources. It is possible to say that the desire of cities that attract qualified manpower, effectively evaluate this power, integrate information and communication technologies, produce new information and transform this information into added value, generate prosperity and host international organizations, and the struggle between them is city competitiveness. Competitive cities are cities that are able to attract talented workforce and innovative firms and achieve success in keeping them permanent (Figure 3). If a city cannot compete to secure these resources, it has the risk of by-passed, leaving declining sectors, communities and cities behind.

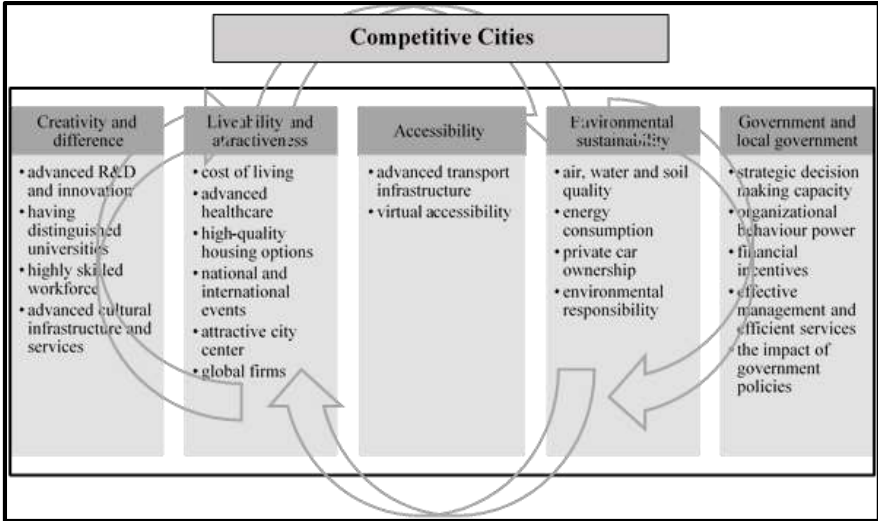


Fig. 3 Potential Features of Competitive Cities (modified from Parkinson et al, 2003; Hu et al, 2013)

4. Do Cities Compete?

The concept of city competitiveness has attracted increasing attention of economists, academics, local administrators and city planners in recent years. Whether cities are competing with each other is a global debate, and there are two fundamentally opposite views. One of these views belongs to Porter (1990, 1995, 2003, 2010) and argues that cities and regions really compete with each other. According to Porter (1995), cities do not compete at the country level, such as taking a share from world trade, adjusting interest rates, increasing the value of their own exchange rates, or establishing restrictive practices or cooperation. In other words, cities do not compete to maximize profits as commercial institutions and firms do. Cities: It competes for its investments, qualified workforce, tourists, government incentives, skilled and educated workforce, high environmental standards and high living standards (Lever & Turok, 1999:791). In this way, cities try to achieve high environmental standards and high quality of life. Camagni (2002) argued that cities compete with each other to gain absolute competitive advantage. The idea that the argument to gain competitive advantage at the city level, like firms, is an indispensable resource that activates the dynamics of certain regions around the world, is getting stronger (Begg, 1999; Cheshire, 1999; Kresl & Singh, 1999). Competition in cities can sometimes be in the form of head-to-head competition for an event or project. Olympic games, fairs, exhibitions etc. with international impact. it is like the competition to attract organizations that have widespread public repercussions (Porter, 1990; Lever & Turok, 1999). Each city itself; “Why someone wants to live, travel, trade, invest, corporatize in their cities; These people should ask what they want from the cities, what other cities could not offer and offer themselves or what they can offer” (Kotler, 2002:257). According to Harvey (1989:126), cities include employment, investment, new technologies, unique physical and social infrastructure opportunities, quality and quantity of workforce, input costs, lifestyles, tax systems, environmental qualities, etc. they are in competition in the fields. On the other hand, there are also opinions arguing that cities cannot be competitive. The most notable known criticism of city competitiveness came from Krugman. Krugman claims that cities do not compete with each other and that they are only a geographical location focused on competing firms and institutions (Lever & Turok, 1999:791). Hence, Krugman argues that companies located within cities, not cities, can compete. In other words, he argues that the concept of city competitiveness is actually an empty concept, and this concept refers to the competitiveness of companies in cities.

In the current situation, the dominant view in the discussions on whether there is competition between geographical units at the country, region or city scale is that there is competition. However, it is assumed that these geographical units are in competition with each other metaphorically, not as real entities. According to this view, cities should be evaluated as companies or real personalities and should be handled with their characteristics such as creativity and entrepreneurship. Given that cities are in competition with each other, the success of cities will not be judged by themselves (for example, not by how successful they have been compared to the past), but by how much one's success differs in the race with others. In city competition, which is the new dimension of competition, cities to increase their attractiveness in the targeted market (capital, investment, qualified labour, etc.); competes to raise the quality of life and environmental standards. According to Lever and Turok (1999:1030), cities compete to attract capital to the city, to increase gross added value, to attract the population that will provide human capital power to the city, to get a share from the public budget, to organize macro-scale organizations (Olympics, international congresses and fairs, etc.).

Not all cities are competitors of each other within the scope of city competitiveness. Although every city wants to be in front of other cities, it is not possible in this practice. Because not every city has similar features or resources. In this case, competition takes place between cities that are alternative to each other, which can replace each other. For example, in the definition of city competitiveness, cities that can attract investments, qualified workforce and population are mentioned. In this sense, these two cities are rivals of each other, if the workforce and investments escape from a city and go to whichever city they are directed to. Port cities in the same region are regarded as rivals because of their similarities. To give another example, London's competition with the most advanced business services with New York, Tokyo, Frankfurt and Paris, Phuket and Denpasar through the tourism sector, Hong Kong and Singapore's financial sector, Bangkok and Kuala Lumpur competition through automobile production can be given (Longa,2009: 88; Webster & Muller, 2000:3). Therefore, competition is most intensely between cities that are located in the same region and have similar characteristics. Otherwise, comparing and ranking the cities of London and Frankfurt, which are among the financial centres of the world with a developed city like Venice in terms of tourism, would not be appropriate in terms of making an economic evaluation. If done, it cannot be said that this comparison is completely wrong or makes no sense. However, such a comparison contributes to the improvement of the performance of cities neither in terms of ranking nor in general economic indicators. In recent years, with the developments in transportation and

telecommunication technologies, a dynamic global environment has been created in which cities have to compete with each other. Developing industrial cities are in an intense competition among themselves to attract capital and investment. When some cities are compared with other cities, it is known that they show high performance with superior technology, infrastructure, geographical location, social and institutional capital (Turok, 2004:1071).

Shen (2004:19) emphasized that city competition is getting intense, and cities are in a fierce race with each other to attract international companies and capital. Glaeser and Saiz (2003) stated that for more than a century, educated cities grow faster compared to other rival cities with less human resources. At the same time, the authors who emphasize that skilled cities develop, associate the reasons for this with their being economically more productive compared to less skilled cities and their transformation into places of attraction for living. City competitiveness has started to come to the fore as an important theme in the economic and political environments of the countries. Especially the European Union countries have made cities important centres in achieving Lisbon targets, growth and job creation. However, city competitiveness has brought along a paradigm shift in the regional policies of the European Union, and policies have begun to be produced to increase the competitiveness of cities. In the past, the rivals of the cities in Europe were shown as only the cities in the country. In other words, investments, qualified personnel, etc. could have moved to other cities within the country at most. However, with the effect of the EU process, every city in the EU has become each other's rival. The fact that these cities do not differ from each other in terms of economic, social and environmental standards has exacerbated the competition (Giffinger et al., 2007:4). Competition between cities often has different reasons behind the process of getting bigger cities to be stronger and better positioned. In general, agglomeration advantages and urbanization economies are considered as factors that determine the size and scope of a city (Parr, 2002:722). It would be wrong to say that the larger the city, the higher productivity and innovation, a higher welfare environment for various consumer products, input factors and citizens (Giffinger et al. 2007:4). Because small cities that gain expertise in a certain area can also rival large cities. In other words, it cannot be said that there is a very strong correlation between the size of a city and its competitiveness. Cities compete with each other to provide the most attractive conditions for investors, to attract qualified and skilled workforce, tourism and incentives, to give importance to global technology, education, infrastructure and innovation, and to differentiate.

5. Globalization and City Competition

The effects of globalization and two fundamental dynamics are observed in the rise of the concept of competition and city competition. The first of these basic dynamics is the increase of capital mobility in the international arena, and the second is the national markets that are becoming more and more open (Turok, 2004:1070). Competitive regions and cities have become places where entrepreneurs and companies want to invest (Kitson, Martin, & Tyler, 2004:997). City competitiveness: the ability of an urban area to produce and market goods and services with better value (not necessarily low price) compared to other urban areas (Webster & Muller, 2000:10). City competitiveness mainly; transportation, communication, electricity and water infrastructure, efficient urban governance, capacity of R&D activities, education and human resources quality in national and international urban hierarchy. Begg (1999:802), in his comprehensive study on competitiveness, links the differences between the definitions to the differences in the interests of the employees. As a result of a comprehensive literature review, it defines competitiveness as the cluster of cities, socio-demographic, institutional / financial and economic factors that attract investment activities and encourage economic activities. Begg emphasizes that four basic components are important in the process of firms investing in the city. These are: cities with good economic and financial structures (economic), skilled and productive workforce (socio-demographic), good infrastructure (city), strong institutions and appropriate financial policies. Begg (1999:800) mentions six features that he thinks indicate a competitive urban economy, including qualitative and quantitative goals. These are the production of high-skill and high-income jobs, the production of environmentally friendly products and services, the focus on products and services with the desired characteristics in production, the economic growth rate to reach full employment, the determination of the areas where the city will specialize not according to the current state of the city, but in accordance with its future potential, the potential of the city to move higher in the existing urban hierarchy. In an attempt to bring together factors influencing urban economic performance, different "competitiveness" factors are combined in a diagram shown in Figure 4 (Begg,1999:802-803).

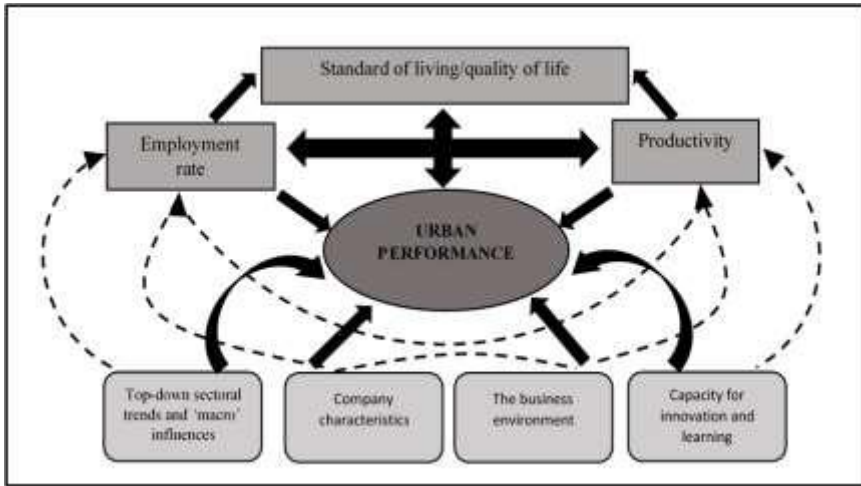


Fig. 4 The City Competitiveness Maze (Begg, 1999)

He emphasizes that, according to Begg, one of the factors that affect the competitiveness of a city is *sectoral trends*. These trends are shaped by the diversity of the sectors inherited by cities and their functions resulting from their historical development. Under the *firm characteristics* dimension Begg refers to the characteristics of firms in a local area. Whether the firms earn above average returns, whether they are dynamic or static, their reliability in financial terms, and their performance are evaluated under this heading. In terms of *business environment*, attention has been drawn to factors such as the quality of production factors that are beyond the direct control of companies, their costs, qualified labour, domestic public investments, social and environmental factors, and social solidarity. In terms of *innovation and learning capacity*, the capacities of companies, entrepreneurship tendencies and technological developments are discussed in order to develop new products and processes (Figure 4).

Nowadays, cities have become places that compete or must compete with each other. In the globalizing world, it is no longer states but regions and cities that compete. Cities around the world have become less concerned about national competitiveness rankings and are focused on improving their position in a world league city-related ranking. Having businesses that can sell to international markets for cities, increasing the quality of life and at the same time gaining competitive power, which can be defined as increasing the income levels of citizens, has been the main goal of development plans. Almost every important city in the world has started to work to develop strategies in order to provide higher quality of life for its residents and to gain competitive advantage by revealing their differences (NCC, 2009:5). Cities and regions consisting of these cities,

which have gained importance in the development of countries with globalization, are considered as important factors for countries to compete internationally. Cities can compete with each other in different ways. Although one of the most basic forms of competition among these forms of competition is directed towards product markets, cities strive to be a centre of attraction for investments to be made in them and compete for funds that may come from the state mechanism. The positive progress of indicators such as the employment rate in cities, growth rate, the infrastructural condition of the cities, the ease of doing business in the cities, the accessibility of the cities, the creative economic activities and branding skills of the cities, the industrial location and the quality of life they offer also contribute to the competitiveness of countries with other countries. With globalization, which is one of the concepts that left its mark on the 21st century, the concept of competitive power has gained more importance, and changing needs, lifestyle, technology, environment have forced both companies, regions and cities to compete in an environment that requires more innovation. He argues that in the process of achieving sustainable competitiveness in the global economy, it passes through an increasing localization that distant competitors cannot respond. The role of nations, regions and cities is increasing as the basis of competition is increasingly shifting to the creation and effective use of knowledge (Rogerson, 1999).

While globalization increases competition on the one hand, it also creates various opportunities for regions/cities involved in this competition. For example, the current literature states that cities that can easily adapt to the global economy by using the relative advantages created by externalities at the local level are growing rapidly and providing an increase in welfare for those living in the city. On the other hand, it is claimed that cities that are attached to global markets rearrange local values and ensure their global circulation (Sassen, 2002:14). Under these conditions, the competitive power of a city is related to what it can offer to the world economic system, as well as to what extent it is integrated with this system. Differences in the structures of different geographies naturally determine their performance and success level in new conditions. Globalization is the most important dynamic behind the competition of cities. Cities, too, are increasingly competing with each other at different levels. This process ensures that the determinants of competitive advantage are dealt with intensively. As cities increasingly compete with each other at different levels, researchers are encouraged to work on the determinants of competitive advantage. Many development strategies, regardless of their national, regional or city nature, ask "what can be done to make the economy more competitive?" It started to come true based on the idea

(Begg, 1999: 795). Porter (1990), on the other hand, opposes this view and argues that there is competition between countries as well, that this competition is a reflection of policy interventions and that it differs from competition between firms. The view that is widespread today and dominates the discussions is that even cities are in competition. City competitiveness creates a new form of competition between cities (Camagni, 2002; Krugman, 1994; Porter, 1990, 1995, 2010). Cities have become to compete intensely with each other at national and international levels at different levels of increasing competitiveness in order to gain and maintain a competitive advantage. At the same time, with globalization, advanced information technologies and structural changes, the concept of competitiveness between cities has begun to develop (Begg, 2002).

6. Fundamentals of City Competitiveness

City competitiveness; it is a concept that allows cities to be compared with each other, beyond the concepts of development and development. It is the process of competition that forces cities to distinguish themselves from others and thus gain a competitive advantage. Cities compete to attract investors and entrepreneurs to provide more opportunities for their citizens, and to obtain funds from public institutions and organizations and the private sector. Numerous interrelated factors play an active role, directly or indirectly, in achieving city competitiveness. These are:

♦ **Infrastructure:** *Geographical location and characteristics* as well as technological, transportation, health and tourism infrastructure are the key factors for cities to gain competitive power. The lack of infrastructure facilities in a city or the lack of these facilities cause that city to have less competitive power (Webster & Muller, 2000:26). The geographical location of cities and settlements are a very important issue for cities that are considered a production factor in their own right. The quality and effective use of the *transportation and communication* that cities have are among the important indicators of the competitiveness of the cities. The capacity, quality and flexibility of transport services play a key role in enhancing the economic, social and environmental performance of cities. Factors such as road, airline, railway, maritime transport facilities, communication networks, the presence of energy lines, availability of energy resources play a direct role in the economic and social development of a city, in the city preference of investments, labour force, in the efficiency of existing investments, i.e., competitiveness (Schuler, 1992: 297-306). *Health infrastructure* is an important element in national and international competition indexes. Hospitals that provide health services such as reducing premature deaths, new-born deaths, disabilities and diseases, and eliminating conditions that negatively affect human health

are among the development indicators of a city (Alkin & Bulu, 2007; Bulu, 2011; Huovari, Kangasharju & Alanen, 2001; Storper, 1995). *Educational infrastructure* is also a determining factor that plays a role in city competitiveness while increasing the development level of cities. It is observed that cities with higher education and knowledge-based human capital grow faster compared to other cities (Simon & Nardinelli, 1996:385; Bulu, 2011:268). The tourism sector is a sector that creates synergy and is the driving force in growth and development. The tourism sector is important in terms of attracting the attention of tourists and increasing the attractiveness of the city (Croitoru, 2011).

♦ **Human Capital:** Human capital, expressed as the sum of the knowledge, skills and all qualities of people, is one of the most influential factors in city competitiveness (Schultz, 2003:208). The World Bank pointed out the importance of human capital in city competitiveness by using the statement

"... if innovation and knowledge are the lifeblood of city competitiveness, human capital is also the gene pool (talent, education and training)" (Zhang & Roberts, 2010:38).

Although information technology is one of the key factors in gaining competitive advantage, it is the manpower that uses technology to turn this technology into usable useful information. It is important for cities to be able to attract qualified workforce in terms of increasing their competitiveness and to have a structure that will provide qualifications to the existing workforce. Because human resources (both quantitatively and qualitatively) are one of the basic dynamics in sectoral development, creating added value, and increasing productivity (Barca, Coşkun & Altunışık, 2002). Engineers, scientists, technicians, and all other important human resources who are experts in their business have an effect on attracting companies to that city.

♦ **Innovativeness:** Innovativeness, which refers to transforming an idea into a marketable economic value (product), a new or improved production or distribution system, or a new form of social service, plays an important role in gaining competitiveness and making it sustainable (Johannessen, Olsen & Olaisen, 1999:122). The OECD estimates that more than half of the total growth in output between 1970 and 1995 was due to innovation (Parkinson et al., 2003:49). In innovation index studies, it is generally measured by patents, utility models and brands. Because today some of the cities are mentioned according to the goods produced, the resources they have, their skills, and the branches of art. For example, just as the city of Istanbul is remembered with its "*Bosphorus view*" and the city of Milan with its "*fashion*". Patents are also one of the important indicators considered in terms of reflecting the result of technological innovation

activities in a city (Kanibir, Nart & Saydan, 2010:55). Therefore, the patent rights, geographical indications, intellectual property rights, the existence of brands in a city support the innovation and production capacity of the city. Strategy expert Anholt (2007:5) states that the number of patents, utility models, and brands in a city are the basic foundations of city competitiveness:

“Even small villages have brand images in the eyes of people who know a little about them. A country that has no brand in any way can only be a country that no one has even heard of” (Anholt, 2007:13).

♦ **Quality of Life:** The quality of life, the measurable spatial, physical and social components of the environment and the perception patterns of these components together, and accordingly, not only the objective characteristics of individuals perception styles, but also the physical health, psychological state, freedom level, social relations and It is a complex and broad concept that is shaped in relation to many factors such as the interaction with the main characteristics of the environment in which it lives (Van Kamp, Leidelmeijer, Marsman & Hollander, 2003:6). The quality of city life, on the other hand, is the ability of organizations and individuals living in layers to benefit from the opportunities and opportunities offered by the city equally, in a balanced way, in proportion to their needs, and to have the opportunity to participate effectively in educational, artistic, cultural, political activities and processes (Geray, 1998:326). It is an important issue that people have sufficient resources in terms of the quantity and qualities of the city they live in, in terms of their personal development in terms of participating in various activities, visiting museums, art galleries, visiting parks, zoos, going to the theatre and cinema. Social and economic factors such as schools, places of worship, social welfare associations, chambers of commerce, credit institutions, crime rates and the like play an important role in the city preferences of investors and senior managers (Begg, 1999:803). The quality of life, which is one of the important determinants of city competitiveness, is perceived differently by people in different cities. For example, according to a study conducted in Brazil, people living in Sao Paulo and Rio de Janeiro consider their homes full of electronics and the ability to buy whatever they want as a criterion in terms of quality of life. Because their lives are based on working and earning. In addition, the understanding of having free time that will allow them to do what they want without working too much is at the forefront in the perceptions of the quality of life of the people living in the city of Bahia in the same country (Serrano, 2003:120).

♦ **Institutions and Network Collaborations:** Institutions and network collaborations show the institutionalization level within a city and its

cooperation capacity with national and international platforms. Institutions are units that synchronize the activities of different economic and social organizations and provide coordination and information sharing. There is a strong correlation between the quality of a city's institutions and the overall competitiveness of the city (URL3). Cooperation with other institutions in works that an institution cannot overcome, produce, or succeed in achieving its goals is a situation that will create an advantage in competitiveness (Docherty, Gulliver & Drake 2004:449). Cities with networks in terms of cities outperform cities that have similar market and environmental conditions and are affected by the same political forces. In this respect, it is necessary to ensure cooperation between the central administration and institutions such as local administrations and to clearly express their responsibilities in order to carry out the urban and public services in the city effectively and efficiently. It is necessary to ensure the efficiency of inter-institutional cooperation in order to increase the life quality of the people living in the city and to meet their needs. Establishing cooperation between public and private sector institutions, education and research institutions is of great importance for the production and quality of high productivity, high value-added products (Smit, 2010: 106).

♦ ***Research and Development (R&D):*** R&D, which is defined as the systematic creative work carried out for the purpose of obtaining new information, producing new projects and developing existing ones by establishing the science and technology infrastructure, and using this knowledge to create new applications, It is an indispensable, important element (URL5) in ensuring and sustaining it. Expenditures for R&D are a necessity in terms of both introducing new scientific and technological information and applying this information to production in a way that creates added value and gaining technological capability. Indicators related to R&D expenditures and R&D employees are among the important indicators included in competitiveness indices (Lever, 2002:860). The increase in value to be achieved by using the information obtained as a result of R&D activities in production is a factor that significantly increases competitiveness. However, while approximately 3% of GNP is transferred to R&D expenditures in developed countries, this rate has not reached even 1% in developing countries.

♦ ***Investments and Foreign Direct Investment (FDI):*** Competitiveness in the short term; It depends on the economic structure, the characteristics and efficiency of the institutions, the quality of the infrastructure and sectoral expertise in the context of all other factors affecting the efficiency of the national system as a whole. In the long term, competitiveness depends on the ability to sustain change in factors that will lead to productivity gains (such as technology, human resources). Therefore, investments (such as

physical capital as well as human resources) are very important (Begg, 1999:798). Capital investments are an important element for economic growth and facilitate the use of developing technologies. A high, sophisticated technological level is necessary to improve a city's production efficiency and increase its competitiveness (So and Shen, 2004:74). In the sense of increasing the capital stock and production in a city, contributing to productivity, FDIs are also a triggering factor in gaining economic growth and competitiveness. FDIs contribute to the production capacity and capital of the city, region and country in cases where the investments made with foreign debt are high cost and risky and the resources are insufficient. By facilitating access to technology and know-how, they benefit the technological development of backward places. The more foreign investors come to a city and stay in the long term, and the higher its integration with the city, the more it contributes to the increase in city competitiveness. While some city governances in China support the development of their cities, they have also been eager to attract national key projects and foreign direct investments (So & Shen, 2004:71).

♦ **Clusters:** Clusters, which are sectoral production structures, have a significant impact on the competitiveness of a city. Clusters are interrelated firms and other institutions (suppliers, buyers, universities, financial institutions, education and other business service providers) that drive the competitiveness of a sector. Porter (1990:78) clarified how companies can produce more innovative products thanks to clusters with the diamond model. Clusters have many effects in the development of those sectors by focusing on specific sectors in a city, region, in production by attracting investors, related and supporting industries to that city or region, and in providing innovations. Clusters attract businesses to desired regions by creating a snowball effect. New business areas are created through clusters, appropriate and qualified markets are developed, an entrepreneurial culture is created, and productivity increases are achieved. In addition, intermediary institutions such as banks, universities and research institutions increase the competitiveness of clusters. Relationships based on trust between these institutions contribute to the development and learning processes of cities.

♦ **The Impact of the Government and Local Administrations:** The responsibilities of local and regional governments, especially municipalities, in increasing the competitiveness of a settlement and making it sustainable are increasing. Local governments, especially municipalities, need restructuring. Because the welfare and happiness of societies, the quality of life (such as cultural facilities, social services, public health investments) become increasingly dependent on a sustainable, active local economy. In city competitiveness, local

governments play a very important role in attracting investments, companies, entrepreneurs, providing a flexible business environment, creating the best conditions, contributing to and supporting the performances of cities. Index studies for city competitiveness have an important effect on increasing the efficiency of governments and local governments that want to take a better position in index rankings. In terms of using their resources more effectively and efficiently, the cities that are at the top have become a good reference (Serrano,2003:119). A competitive city is supported by governments and local governments, consisting of talented people who are open-minded against fresh ideas, in the effective implementation and shaping of public policies related to economic capacity, employment, education, public health and the environment (So&Shen, 2004:79). In this context, the role of governments, local governments and especially municipalities in increasing competitiveness cannot be denied.

♦ **Branding:** A city with high branding ability will have a high economic efficiency, welfare level and life comfort. However, one of the most important issues for the realization and development of urban branding is that the city has reached a modern level within the scope of information economy. It has become a necessity for self-sufficient cities to be in a competitive position to get enough share of the cake today. Differentiation and branding are seen as the most effective methods to gain an advantage as a result of competition. Branding by cities that strive to become a centre of attraction for people in all aspects is an important factor. Through branding, cities will be separated from similar settlements and become a centre of attraction thanks to their distinctive features (Zeren,2012:96-97). Just as a Coca-Cola, McDonalds, Nike, Walt-Disney increases its earnings thanks to its own brands and is one step ahead of other companies in the competition; Cities should create a brand according to their unique structures, culture and resources and contribute to their image positively. It is a vital strategy that each city has its own signature. The cultural texture that a city has in its branding should also be taken into consideration (Klaus, 2004:6).

♦ **Localization and Aggregation Economies:** Since the early 1980s, especially in accordance with the neo-liberal ideology and globalization process, important studies in the field of economic geography and related fields have caused fluctuations; has expanded the previous localization work. Localization economies are agglomeration economies formed by companies located in the same field and belonging to the same industry. Yavan (2006:134) defines localization economies as economies that include the benefits and advantages obtained through externalities that will occur as a result of gathering companies operating in the same sector in a

specific geographical location. According to Porter (1990;1995), clustering, which appears to increase regional, local and sectoral competitiveness and at the same time as a development model; It is defined as the concentration of companies that include mutually dependent suppliers, institutions that produce information (universities, research institutions, etc.), supporting institutions, customers, local governments, sectoral non-governmental organizations and relevant public institutions that support the sector.

7. Competitiveness Indices

A country can be competitive and maintain it; a strong legal system, a flexible economic structure, technological and traditional infrastructure investments, competitiveness in international markets, transparency in the public and bureaucracy, productivity structure, balance of wages, investment in education, respect for values, and a balanced economic structure at the point of being global and local. depends. However, since the resources of countries are directly related to their culture and habits, there is no single model that can increase competitiveness all over the world. For the competitiveness index studies to be carried out at the national level at different geographical regions, the UK has published the original competitiveness indicator, which it accepts as the main determinants of productivity and includes variables that have a strong relationship with competitiveness. In this study conducted by the UK Ministry of Industry and Trade (2001), competitiveness indicators; They are grouped under the headings of results, which include business environment, resources (food, physical, technological) and economic outputs. Huavari, Kangasharju and Alanen (2001) carrying out "*competitiveness index*" studies for the cities of Finland considered, (1) *human capital*, (2) *technological progress*, (3) *agglomeration* and (4) *accessibility variables*.

About city competition, The Global Competitiveness Index (GCI) is published annually by the World Economic Forum (WEF) at the country level (URL4). It uses 9 different basic variables (institutions, infrastructure, macroeconomics, health and basic education, advanced education, market efficiency, technological readiness, business sophistication and innovation). The International Institute of Management Development (IMD) recognizes GNP per capita as the most important indicator of competitiveness. It publishes a competitiveness index for countries with its work titled World Competitiveness Yearbook; It is based on four main variables: economic performance, state efficiency, business efficiency and infrastructure. World Competitiveness Yearbook, Annual Competitiveness Report (NCC), Growth Differences Between Members

(OECD, 2001) and Regional Competitiveness and Status of Regions (Department of Trade and Industry-DTI) published by the International Institute for Management Development such studies are examples of other international competitiveness index. JESSICA is an initiative aimed at the creation of sustainable cities between the Joint European Support for Sustainable Investment in City Areas, the European Commission, the European Investment Bank and the Council of Europe Development Bank and international financial institutions (URL5). It has been observed that the studies carried out in the field of city competitiveness mostly focus on American and European cities and are generally limited to a specific area such as quality of life and economic development. For example, Sassen (1991) describes cities in his "Global Cities"; The existence of the headquarters of multinational companies, the existence of the centres of financial institutions, and the existence of the management related to corporate services on a global scale. This situation is also valid for study in Turkey. Alkin et al. (2007), URAK (URL6), EDAM (URL7), Albayrak and Erkut (2010), are studies dealing with competitiveness in different variables. Cities today have focused more on improving their position in the global city league tables than on national level competitiveness classifications (NCC, URL8). The increase in competition between cities in the last 20 years has started to be emphasized in many studies in the literature on this subject. Competitiveness index studies on the basis of cities have begun to be conducted and cities have been listed in line with various indicators. With these indicators:

- *Evaluating the economic, social and environmental conditions of different cities, revealing their strengths and weaknesses,
- *In addition to concentrating on city rankings by decision makers, detailed examination of the results to reveal and develop potentials,
- *Allowing cities to compare with each other and creating viable strategies for future city development,
- *As a prerequisite for specialization, it is aimed to obtain various benefits such as defining specific, specific economic activity areas (Giffinger et al., 2007:10).

The city competitiveness evaluation and development process is handled in a progressive structure that follows each other (Figure 5). The city rankings obtained through index studies, on the other hand, create a pressure especially on local governments. Because every local government perceives the ranking of cities as a performance measure, they want their city's location to be better than others and to increase their efficiency. Studies to measure city competitiveness can be evaluated in three groups:

*Studies examining the change of a city over the years depending on various indicators.

*Studies comparing several cities with the help of few variables.

*Studies that examine all cities of a certain scale (state, region, metropolitan, cities, etc.) by creating one or more indexes with the help of many variables.

It is a generally accepted principle that city competitiveness cannot be achieved without cooperation between the central government, local government, private sector, public and NGO's. Of course, the control of the competitiveness of cities is not only in cities. The political situation and socio-economic conditions of the region and the country where cities are located also have an important place in city competitiveness (Figure 5) (Webster & Muller, 2000:2).

Subject of Identification
<ul style="list-style-type: none"> • Asking and answering various questions that could describe the city itself. “I wonder in what areas can we be a competitive city? Production oriented? Service oriented ?.
Competitiveness focus groups with key stakeholders
<ul style="list-style-type: none"> • City competitiveness is a process that should be evaluated with the active participation of all stakeholders. In this context, focus groups where discussions and sharing of ideas on how to improve competitiveness should come together.
Economic structure analysis
<ul style="list-style-type: none"> • Analysis of the economic structure of the city is done at this stage, such as the status of the sectors, the competence of the workforce, the localization coefficients, input-output analysis
Determination of the city to be compared
<ul style="list-style-type: none"> • A successful city suitable for the city is chosen in order to develop the city's competitive structure. It is important that the city where information can be exchanged and suitable for comparison is selected.
Analysis of city-specific features
<ul style="list-style-type: none"> • Local dynamics and current situation in the city are analysed.
Defining economic advantages
<ul style="list-style-type: none"> • to focus on competitive strategy, key sectors, businesses, clusters are examined, and economic advantages are identified.
Evaluation of external opportunities and threats
<ul style="list-style-type: none"> • by focusing on national and international dynamics, variables that will positively and negatively affect the competitive position of the city are determined.
Especially assessment of institutional internal strengths and weaknesses
<ul style="list-style-type: none"> • Evaluation of external opportunities and threats. By focusing on national and international dynamics, variables that will positively and negatively affect the competitive position of the city are determined.
Evaluation of competitive strengths and weaknesses
<ul style="list-style-type: none"> • The strengths and weaknesses of the city are determined, and which of these factors is a competitive variable or not is analysed.
Formulation of the competitiveness strategy
<ul style="list-style-type: none"> • Strategies are created to improve city competitiveness as a result of the analysis.
Institutionalization of indicators and control system
<ul style="list-style-type: none"> • The success of the competitiveness strategy depends on the monitoring of the process and the determination and examination of the indicators.

Fig. 5 City Competitiveness Valuation and Development Process
(Webster & Muller, 2000)

8. Problems in Measuring City Competitiveness

Although the concept of city competitiveness has been used frequently in recent years, there is no consensus on its definition, dimensions, content, etc. This situation causes the use of different methods in measurement. As the main reason for this situation, it can be shown that city competitiveness is a multifaceted concept with dimensions that cannot be directly observed. When we look at the studies on city competitiveness, we will consider the other problems encountered in a few items:

* Mixing development indicators and competitiveness indicators,

* The relationship between the indicator and competitiveness: does the presence of indicators cause the competitiveness of the city? Or is the competitiveness of the city causing the presence of indicators?

* How much can competition indicators measure competitiveness? For example, Alkin et al. (2007), Turkey ranks over their cities; It used variables such as the presence of the shopping centre, the number of ADSL and the number of telephone subscribers, which are debatable to be indicators of sophistication but not to be a competitive indicator.

* To consider all cities in one pot: In such a case, cities with very different population, development level, sectoral structure and geographical location are evaluated together. This situation causes misleading results. In order to eliminate this problem, studies are carried out where one or more provinces are compared, so that more realistic results are obtained. However, this situation can also prevent the whole picture from seeing.

* Lack of a comparable competitiveness study: Each city / region / country conducts competitiveness research with a different methodology. This situation prevents the comparison of competitiveness of cities (Webster & Muller, 2000:40).

Having development indicators in a city does not make it competitive; it only provides grounds for it to be competitive. The city is competitive if it can use its superiority and attract investment, company, and capital. Likewise, statistical information such as GNP per capita or the production and sales capacity of the province are not always useful in measuring competitiveness. Kresl and Singh (1999:1019) stated that city competitiveness is not a concept that can be measured directly, but it can be measured through some of its traces and effects, and that they constitute a small set of variables that can measure city competitiveness in their studies. Cities are, in many ways, settlements that have changed rapidly over the years. Therefore, it would not be wrong to say that the city competition valuation criteria should also change rapidly. For example, cheap labour force is an important criterion for a city whose leading sector was textiles; qualified labour force can be an important criterion for automotive or computer technologies in the current pioneering sector.

9. Conclusion

The effects of the industrial revolution are clearly seen in the emergence of the competition process between cities and the identity of cities in areas such as population density, division of labour, specialization, economic growth, social life. Some cities from the industrial revolution to the present; While there are places that direct economic life in terms of countries, pioneer developments in science and technology and have high living standards, some cities have fallen behind in this sense (Barca,

Coşkun & Altunışık, 2013:18). However, while some cities completed their deficiencies and gained the feature of being the centre of commercial and technological developments in time, cities with strong economies in many parts of the world also started to lose (Begg, 1999:795). Cities where costs are high, and labour is expensive are at a disadvantage even if all other factors are at the same level. Strong structure of their transportation systems, ease of access, and cities where knowledge-based sectors are concentrated have come to the fore in companies' choice of location (Begg, 1999:799). Individuals and companies have started to prefer regions and cities that are competitive, dynamic, lively, and able to use their creativity as the place where they will make their investments and settle (Kitson, Martin & Tayler, 2004:997). Cities that offer them more opportunities in economic, social, cultural and other fields have become more attractive for them (Barca Coşkun & Altunışık, 2013: 18). Therefore, companies in cities compete with other cities in attracting their workforce, as well as cultural activities, receiving infrastructure support, and getting the biggest share from public and private funds. For example, if the Boeing firm declares that it will move its headquarters to a different location from the city of Seattle, all cities in America will have a tough struggle to avoid the big fish (Grosveld, 2002:52).

The issue of improving regional and city competitiveness has started to take an important place among the basic policies of the countries (Kitson Martin & Tayler, 2004: 992). The competitiveness indicators of cities can contribute positively to national economies by affecting regional development and consequently macroeconomic indicators (growth, foreign investments, unemployment, etc.). As a basic unit within the scope of the economic structure, cities can be a driving force on the growth of countries. In recent years, important academic debates have been witnessed on how to best conceptualize and measure city competitiveness. More attention needs to be paid to the comprehensive competitiveness of cities to ensure economic, social and environmental sustainability (Shen, 2004).

Cities gaining an advantage in competition and gaining an advantage is not a result that will happen by itself. City competitiveness is the determination of the mission within a vision to be developed through the organs formed with the participation of the representatives of local administrations, private sector, non-governmental organizations, educational institutions, research and development organizations, development agencies, activities carried out in a planned and systematic manner in the scope of the resources, capacity and abilities, efforts will have an outcome. Bodies, each assigned a separate task and responsibility, will convey to the required units how the goals and objectives set within the vision and mission will be achieved, what needs to be done, and then

determine the desired results by means of inspection mechanisms. In this way, it will be possible to talk about a competitiveness based on the internal dynamics of the cities by taking the necessary steps and taking initiatives. Local administrations and governments have an important role in establishing competitive cities. Local administrations or governments should produce projects to improve the competitiveness of cities and make public investments within this scope.

One of the important points in city competitiveness is that the activities carried out are based on knowledge and innovation. Today, the indispensable condition of gaining competitive power and making this power sustainable is innovation. One of the important issues in city competitiveness is the necessity of establishing the psychology of ownership specific to each city. It should not be forgotten that it is important for each individual to love the city they live in and to realize that their work actually contributes to the development of the city. Creating strong, competitive and liveable cities is important in terms of leaving liveable cities to future generations, based on the principle of sustainability. Every step we take in line with this awareness will contribute to the development, development and increase of competitiveness of the city. In order to understand, measure, make comparisons and improve city competitiveness, the accumulation of knowledge created with the contribution of academicians from various disciplines such as City Planning, Geography, Economics and Business is increasing day by day.

References

- Açıkgöz, Ö. (2007). Şehir, şehir toplumu ve şehir sosyolojisi. *Sosyoloji Konferansları Dergisi*, 35, 57-83.
- Akturan, U. & Oğuztimur, S. (2016). Kent markalaşması kavramının içeriği ve gelişimi: Farklı disiplinler farklı yaklaşımlar. *Planlama*, 26(2), 117-129.
- Albayrak, A.N. & Erkut, G. (2010). Türkiye’de bölgesel rekabet gücü analizi. *MEGARON*, 5(3), 137-148.
- Alkin, K., Bulu, M. & Kaya, H. (2007). İller arası rekabet endeksi: Türkiye’deki illerin rekabetçilik seviyelerinin göreceli olarak ölçülebilmesi için bir yaklaşım. *İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi*, 6 (11), Spring 2007/2, 221-235.
- Anholt, S. (2007). Competitive identity: a new model for the brand management of nations, cities and regions. *Policy and Practice: A Development Education Review*, 4, Spring, 3-13.

- Armağan, M. (1999). Osmanlı şehrine kavramsal bir yaklaşım. Osmanlı Ansiklopedisi, C5, 536-544, Yeni Türkiye Yayınları, Ankara.
- Barca, M., Coşkun, R. & Altunışık, R. (2002). Explaining performance differences among Turkish cities: a tale of five cities. Small Business and Entrepreneurship Development Conference, The University Of Nottingham, UK.
- Begg, I. (1999). Cities and competitiveness. Urban Studies, 36, 5-6, 795-809.
- Begg, I. (2002). Urban competitiveness: Policies for dynamic cities. Bristol: Policy Press.
- Beceran, E. (2004). Bölgesel rekabet gücü. Süleyman Demirel Üniversitesi İİBF Dergisi, 9 (2), 279-302.
- Bulu, M. (2011). Measuring competitiveness of cities: Turkish experience, Int. J. Knowledge-Based Development, 2 (3), 267-281.
- Budd, L. & Hirmis, A. (2004). Conceptual framework for regional competitiveness. Regional Studies, 38(9), 1015-1028.
- Camagni, R. (2002). On the concept of territorial competitiveness: Sound or misleading?. Urban Studies, 39: 2395-2411.
- Cheshire, P. (1999). Cities in competition: Articulating the gains from integration. Urban Studies, 36 (5-6), 843-864.
- Core Cities Working Group. (2004). Our cities are back: Competitive cities make prosperous regions and sustainable communities. London: ODPM. Retrived from: <https://www.corecities.com/publications>
- Croitoru, M. (2011). Tourism competitiveness index-an empirical analysis Romania vs. Bulgaria. Theoretical and Applied Economics, XVIII (9) (562), 155-172.
- Du, Q., Wang, Y., Ren, F., Zhao, Z., Liu, H., Wu, C., Li, L. & Shen, Y. (2014). Measuring and analysis of urban competitiveness of Chinese provincial capitals in 2010 under the constraints of major function-oriented zoning utilizing spatial analysis. Sustainability, 6, 3374-3399.
- Dunning, J. H. (1995). The global economy and regimes of national and supranational governance. Business and the Contemporary World, 7, 124-136.
- Transport and the Regions Great Britain: Department of the Environment. (2000). Our towns and cities: The future. London: DETR.
- Docherty, I., Gulliver, S. & Drake, P. (2004). Exploring the potential benefits of city collaboration. Regional Studies, 38(4), 445-456.

- Eroğlu, O. & Yalçın, A. (2014). Yeni bir rekabet formu olan kent rekabetçiliğine yönelik literatür taraması. Çankırı Karatekin Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 4(1), 19-42.
- Geray, C. (1998). Kentsel yaşam kalitesi ve belediyeler. Türk İdare Dergisi, 70 (421), 326-341.
- Glaeser, E. & Saiz, A. (2003). The rise of the skilled city, Brookings-Wharton Papers on Urban Affairs, 1, 47-105.
- Giddens, A. (2012). Sosyoloji, Kırmızı Yayınları, İstanbul.
- Giffinger, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanoviü, N., & Meijers, E. (2007). Smart cities: Ranking of European medium-sized cities. Vienna, Austria: Centre of Regional Science (SRF), Vienna University of Technology. Available at http://www.smartcities.eu/download/smart_cities_final_report
- Gordon, I. (2002). The Competitiveness of cities: Why it matters in the 21st century and how we can measure it?, Cahiers De Laurif N°135, De L'institut D'aménagement Et D'urbanisme De La Région D'ile-De-France, 33-41.
- Grosveld, H. (2002). The Leading Cities of the World and their Competitive Advantages. The Perception of 'Citymakers'. Naarden, The Netherlands: World Cities Research.
- Güllüpinar, F. (2012). Kent sosyolojisi kuramları üzerine bir literatür değerlendirmesi. Çağdaş Yerel Yönetimler, 21(3), 1-29.
- Harvey, D. (1989). From managerialism to entrepreneurialism: The transformation in governance in the late capitalism. Geografiska Annaler, 71, 3-17.
- Harvey, D. (1999). Postmodernliğin durumu. Metis Yayınları (Çev. Sungur Savran), İstanbul.
- Hu, R., Blakely, E.J. & Zhou, Y. (2013). Benchmarking the competitiveness of Australian global cities: Sydney and Melbourne in the global context. Urban Policy and Research, 31(4), 435-452.
- Huovari, J., Kangasharju, A. & Alanen, A. (2001). Constructing an index for regional competitiveness. Helsinki: Pellervo Economic Research Institute Working Papers, No:44.
- Hutchins, M., & Parkinson, M. (2005). Competitive Scottish cities? Placing Scotland's cities in the UK and European context. Edinburgh, UK: Scottish Executive.
- Jensen-Butler, C. (1999). Cities in competition: Equity issues. Urban Studies, 36(5-6), 865- 891.

- Johannessen, J.A., Olsen, B. & Olaisen, J. (1999). Aspects of innovation theory based on knowledge-management. *International Journal of Information Management*, 19, 121-139.
- Kanıbir, H., Nart, S. & Saydan, R. (2010). Şehir pazarlamasında marka kişiliğinin etkisi: Algılanan marka kişiliği-turistlerin tavsiye etme davranışı ilişkisi. *Pazarlama ve Pazarlama Araştırmaları Dergisi*, 6, 53-84.
- Keleş, R. (1973). *Urbanization in Turkey*, Ford Foundation, New York.
- Kitson, M., Martin, R. & Tyler, P. (2004). Regional competitiveness: An elusive yet key concept?. *Regional Studies*, 38 (9), 991-999.
- Klaus, P. (2004). Urban settings in the competition among cities”, *Theomai Journal, Society, Nature and Development Studies*, 9. Retrieved from: <http://www.redalyc.org/pdf/124/12400903.pdf>
- Kotler, P., & Gertner, D. (2002). Country as brand, product, and beyond: A place marketing and brand management perspective. *The Journal of Brand Management*, 9, 249-261.
- Kresl, P.K. & Singh, B. (1999). Competitiveness and the urban economy: The experience of 24 Large US metropolitan areas. *Urban Studies*, 1017-1027.
- Krugman, P. (1994). Competitiveness: A dangerous obsession. *Foreign Affairs*, 73 (2), 28-44.
- Lever, W.F. & Turok, I. (1999). Competitive cities: Introduction to the Review. *Urban Studies*, 36/1999, (5-6), 791-793.
- Lever, W. F. (2002). Correlating the knowledge-base of cities with economic growth, *Urban Studies*, 39(5-6), 859-870.
- Linnamaa, R. (1999). Kaupunkiseudun kilpailukyvyyn rakenteelliset ja dynaamiset elementit (The dynamic and structural elements of competitiveness of urban regions). In Sotarauta, M. (ed.) *Kaupunkiseutujen kilpailukyky ja johtaminen tietoyhteiskunnassa* (Competitive advantage and leadership of urban regions in information society). Suomen Kuntaliitto, Acta-sarja 106. Helsinki.
- Longa, D.R. (2009). *Globalization and urban implosion: Creating new competitive advantage*. New York: Springer.
- Malecki, E.J. (2002). Hard and soft networks for urban competitiveness. *Urban Studies*, 39 (5-6), 929-945.
- McLuhan, M. (1964). *Understanding media: The extensions of man*. New York: McGraw Hill.

- Metaxas, T. & Kallioridis, D., (2003). Medium-size economic development and regional competitiveness: the case of Larissa-Volos dipole in Thessaly region of Greece, 9th Regional Studies Association International Conference 'Reinventing Regions in a Global Economy' Pisa, 12-15 April.
- NCC- National Competitiveness Council, (2004). Annual Competitiveness Report. Forfas, Ireland, 118p.
- NCC- National Competitiveness Council (2009). Our Cities: Drivers of National Competitiveness. Forfas, Ireland, 42p.
- Parkinson, M., & Harding A. (1995). European cities toward 2000: entrepreneurialism, competition and social exclusion. In M. Rhodes (ed.), *The regions and the new Europe: patterns in core and periphery development*, Manchester University Press, Manchester.
- Parkinson, M., Hutchins M., Simmie J., Clark G. & Verdonk H. (2003). *Competitive European cities: Where do the core cities?* London: ODPM.
- Parr, J.B. (2002). Agglomeration economies: Ambiguities and confusions. *Environment and Planning A*, 34, 717-731.
- Porter, M. E. (1990). The competitive advantage of nations, *Harvard Business Review*, March-April: 73-93.
- Porter, M. E. (1995). The competitive advantage of the inner city, *Harvard Business Review*, May/ June, 55-71.
- Porter, M. E. (2003). The economic performance of regions. *Regional Studies*, 37, 549-578.
- Porter, M.E. (2010). *Rekabet üzerine*. Optimist Yayıncılık, (Çev. Kıvanç Tanrıyar) İstanbul.
- Robertson, R. (1994) 'Globalisation or Glocalisation?', *Journal of International Communication* 1(1): 33-52.
- Rogerson, R.J. (1999). Quality of life and city competitiveness. *Urban Studies*, 36 (5-6), 969-985.
- Sassen, S. (1991). *The Global City*: New York, London, Tokyo. Princeton, NJ: Princeton University Press.
- Sassen, S. (2002). Locating cities on global circuits. *Environment and Urbanization*, 14, 13-30.
- Schuler, E.R. (1992). Transportation and telecommunications networks: Planning urban infrastructure for the 21st century. *Urban Studies*, 29(2), 297-310.

- Schultz, T.P. (2003). Human capital, schooling and health. *Economics and Human Biology*, 2003/1.
- Serrano, F. A. (2003). City competitiveness and attractiveness: A New approach to evaluate economic development in Mexican cities. PhD thesis, University of Glasgow, Law, Business and Social Sciences, Department of Urban Studies.
- Sert, E., Karpuz, H. & Akgün, G. (2005). Küreselleşme sürecinde değişen kent kavramı; Mekân ve politikleşme üzerine bir okuma çalışması. *Planlama*, 2, 101-111.
- So, M.-S. & Shen, J. (2004). Measuring urban competitiveness in China". *Asian Geographer*, 23(1-2), 71-91.
- Shen, J. (2004). Urban competitiveness and urban governance in the globalizing world". *Asian Geographer*, 23(1-2), 19-36.
- Sotarautua, M. & Linnamaa, R. (1998). Urban competitiveness and management of urban policy networks: Some reflections from Tampere and Oulu, Cities at the Millenium Conference, London.
- Sotarauta, M. (1999). The Quality of Urban Development Strategy Process as a Competitive Advantage. Domanski, R. (toim.) Competitiveness of regions in the Polish and European perspective, *Studia Regionalia*, Committee for Space Economy and Regional Planning of the Polish Academy of Sciences, 9.
- Simon, C.J. & Nardinelli, C. (1996). The talk of the town: Human capital, information, and the growth of English cities, 1861 to 1961. *Explorations in Economic History*, 33, 384-413.
- Smit, A.J. (2010). The competitive advantage of nations: Is Porter's diamond framework a new theory that explains the international competitiveness of countries. *Southern African Business Review*, 14(1), 105-130.
- Storper, M. (1995). The resurgence of regional economies, ten years later: The region as a nexus of untraded interdependencies. *European Urban and Regional Studies*, 2, 191-221.
- Topal, A.K. (2004). Kavramsal olarak kent nedir ve Türkiye'de kent neresidir?. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 6(1), 276-294.
- Turok, I. (2004). Cities, regions and competitiveness. *Regional Studies*, 38.9, 1069-1083.
- Urban Task Force. (1999). Towards an urban renaissance: Final report of the Urban Task Force. London:Spon.

- Van Kamp, I., Leidelmeijer, K., Marsman, G. & de Hollander, A. (2003). Urban environmental quality and human well-being. Towards a conceptual framework and demarcation of concepts; a literature study. *Landscape and Urban Planning*, 65, 5-18.
- Webster, D. & Muller, L. (2000). Urban competitiveness assessment in developing country urban regions: The road forward. Urban Group, INFUD The World Bank, Washington D.C., 1-47.
- World Health Organization QoL Group .(1999). The World Health Organization Quality of Life Assessment (WHOQOL). Position Paper form the World Health Organization – Social Science and Medicine, 41, 1403-1409.
- Yavan, N. (2006). Türkiye’de doğrudan yabancı yatırımların lokasyon seçimi üzerine uygulamalı bir araştırma. Ankara Üniversitesi Sosyal Bilimler Enstitüsü Coğrafya Anabilim Dalı Beşerî ve İktisadi Coğrafya Bilim Dalı, Doktora Tezi (PhD Thesis), Ankara.
- Zhang, M. & Roberts, M. (2010). What makes cities competitive? A selective review of theories and international experiences. (Ed. M. Zhang). Report “Competitiveness and growth in Brazilian cities: Local policies and actions for innovation” The World Bank, Washington.
- Zeren, H. E. (2012). Kent markalaşması sürecinde iç girişimcilik faktörü. *KSÜ, İİBF Dergisi*, 2(1), 95-104.

İnternet References

- URL1:**[https://www.unrisd.org/80256b3c005bccf9/\(httpauxpages\)/f270e0c066f3de7780256b67005b728c/\\$file/dp114.pdf](https://www.unrisd.org/80256b3c005bccf9/(httpauxpages)/f270e0c066f3de7780256b67005b728c/$file/dp114.pdf) (13.09.2020)
- URL2:** <https://sozluk.gov.tr/> (13.09.2020)
- URL3:** <https://www.citigroup.com/citi/citiforcities/pdfs/hotspots2025.pdf> (03.06.2021)
- URL4:**<https://www.oecd.org/sti/inno/researchanddevelopmentstatisticsrds.htm> (15.01.2021)
- URL5:**http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2020.pdf (10.10.2020)
- URL6:** <https://www.urak.org/yayinlar.html> (01.02.2021)
- URL7:**https://edam.org.tr/wpcontent/uploads/2016/11/rekabet_web.pdf (03.02.2021)
- URL8:**<http://www.competitiveness.ie/publications/> (08.01.2021)

CHAPTER IV

ACCOUNTING AND ECONOMIC ANALYSIS OF THE ACTIVITIES OF OIL COMPANIES AND THE IDENTIFICATION OF RESERVES FOR THEIR GROWTH: THE CASE OF RUSSIA

Assoc. Prof. Dr. Denis LYSENKO

Moscow State University it. M.V. Lomonosov, Moscow-Russian
Federation, e mail: delysenko@mail.ru, Orcid ID: 0000-0002-3773-3158

Assist. Prof. Dr. Leyla AKGÜN

Iğdır University, Iğdır-Turkey, e mail: leyla.akgun@igdir.edu.tr, Orcid
ID: 0000-0001-5876-0211

1. Introduction

The beginning of the twenty-first century is characterized by a fairly successful period for the oil industry, despite various political unrest, disasters, military operations, etc. Namely, the modern oil sector began to develop rapidly from the 1980s to the 2007 financial crisis and has been in a downward cycle until now. In the near future, an increase in prices for energy raw materials, including oil, is predicted, which plays an important role in stimulating the development of oil companies. But if we look at the issue from the other side, this leads to the fact that oil-importing countries are actively looking for alternative resources. The rise in oil prices at a high rate increases the profits of Russian oil companies, which certainly increases tax revenues to the budget of the country (Грачева, 2015: 23). Contrary to this fact, this leads to the fact that the economy is highly dependent on the oil sector. In short, oil is a gift and a curse to the Russian economy. The problems of dependence of the Russian economy are formed, first of all, on the prices for energy carriers, and secondly, on how the latter will change. Therefore, the following problems of the oil sector can be identified (Нархид и Апаче, 2019: 33):

- Strong delay in geological exploration from oil production,
- Potential increase in competition in domestic and foreign markets,
- Crude oil continues to play a significant role in exports (almost 26%),
- Underdeveloped rental mechanisms,
- Restraining policies for the development of infrastructure sectors.

For its part, the above problems are derived from the following internal factors (Рафалович, 2018: 24):

- The problem of rational planning, use and sale of available fuel resources,
- Problems of transportation of oil resources from points of production to places of further processing and sale (organization of pipelines, water, rail, road transport),
- Problems associated with the transformation of raw materials into a finished oil product (reduction of investment in R&D, business is reluctant to invest in projects),
- The problem of distribution of finished products to paying customers,
- Problems of management in the organization of intersectoral projects,
- Problems of the geographical aspect (promising and rich deposits are located in remote areas of the country).

The energy complex of Russia can be viewed as a systemic organization using the country's fuel and energy resources. For this, it is necessary to design a system of technological processes of a production organization: from certain natural resources (nuclear energy, oil, gas, coal, hydropower) through processing and delivery to the consumer (Форман, 2019).

In addition, for the development of the energy complex as a whole, R&D and research and experimental development should be provided, which is what various design institutes are doing. For the normal functioning of the fuel and industrial complex, training of relevant specialists is also required.

Considering all of the above, it is possible to formulate the tasks of the state in the development of the oil sector (Симчера, 2018):

- Decrease in the export of crude oil, growth in the export of petroleum products, growth in the processing and supply of raw materials for petrochemicals,
- Adoption of transparent rules for the use of oil and gas infrastructure, programs for their development,
- Development of open trade and competition in the domestic oil and oil products market,
- Support for the priority development of the oil refining complex, protectionism in relation to investments in this area,

- Development of a set of legislative acts regulating the oil complex.

2. Sector Specific Issues

The oil and gas industry of Russia in the newest economic conditions is in a difficult state. Every year the reserves of oil and gas deposits are depleted, the productive horizons become deeper, the conditions for their production are significantly more complicated, and the volumes of supply and refining of oil are decreasing (Ендовицкий, 2009: 10).

Almost 95% of oil and gas produced in Russia is accounted for by 8 enterprises of the oil and gas complex, among which Rosneft holds a leading position. This company is a permanent member of the Neftegaz exhibition and a monopolist in this market, it is it who develops a strategy for the development of the oil and gas sector, carries out the structural restructuring of the industry in accordance with market conditions of management, meets the needs of industrial consumers and the population, ensures the transit of oil and gas to the states of the European Union (Чашкин, 2017).

The followings can be distinguished among the main problems of the oil and gas industry:

1. General reduction in the volume of total production of oil resources,
2. Inefficiency of diversification of gas and oil supply in the country,
3. Large amounts of natural gas consumption by industrial enterprises and the population,
4. Dependence on monopoly companies,
5. Incomplete workload of oil refineries,
6. The crisis of non-payments, especially in the gas sector (Тюрин и Макаров, 2017: 28)

The oil and gas industry of Russia is characterized by a high degree of monopolization, insufficient transparency and an imperfect organizational management structure, and insufficiently developed competition.

Unlike oil, gas does not require significant preliminary processing before use, but it must be immediately supplied to the consumer. And here, also, there are certain particular features of the oil and gas industry, for example, in the issue of transportation (Кулаичев, 2018).

Attracting the investments from foreign partners is constrained by a number of factors, including the instability of the political course, imperfect procedures for issuing licenses that allow exploration and further

development of deposits, and with them significant risks of gaining the return of spent investments and making a profit. Oil refining and production of petroleum products are carried out at oil refineries, but many of them are morally "outdated" and lag behind Europe in terms of technological levels (Макшанов, 2019).

3. Analysis of the Main Indicators of the Financial and Economic Activities of PJSC Surgutneftegas

PJSC Surgutneftegas is one of the largest oil and associated gas producers in Russia. Currently, the company occupies a confident third position in the share of the Russian oil market (after Rosneft and Lukoil, 10.8%), and first in the volume of exploration drilling. The utilization rate of associated petroleum gas is 99.6%, which makes Surgutneftegas a leader in this activity among other oil companies.

The company's activities are limited to the territory of the Russian Federation, where the main points for the exploration and production of hydrocarbon resources are located: Western and Eastern Siberia, Timan-Pechora. In the oil and gas production sector, the company ensures target levels of production volumes, taking into account economic efficiency and external conditions, first of all, the price environment of the hydrocarbon market and restrictions on oil production under the OPEC + agreement, as well as taking into account the tax policy of the state (<http://www.ereport.ru/articles/commod/oilcount.htm>).

In 2019, the volume of oil production amounted to 60.8 million tons, which is slightly less than in 2018. Determinant factor of the stability of the company is the reproduction of the raw material base. By means of geological work in 2019, an increase in oil reserves in the amount of 64 million tons was ensured. Gas production amounted to 9633 million m³, which also differs little from last year's value.

The business process of the company's activity consists of 4 stages (Макшанов и Журавлев, 2018: 63):

- 1) Exploration and production of hydrocarbons,
- 2) Refining of extracted oil, production of petroleum products,
- 3) Transportation, trade and marketing of petroleum products,
- 4) Electricity production.

Revenue in 2019 amounted to 1,556 billion roubles, which is slightly more than last year's value. The prime cost amounted to 1,071 billion roubles. The growth rate was 3.7%. As mentioned above, oil and gas production fell slightly compared to last year's data, which is associated

with the fulfilment of the obligations of the OPEC + agreement. Net profit in 2019 amounted to more than 105 billion roubles, which is almost 8 times less than last year's amount.

Previously, analysts predicted that an unexpected strengthening of the rouble in December 2019 would lead to a fall in the annual net profit of Surgutneftegaz, whose financial performance directly depends on the dynamics of the rouble exchange rate due to trillions of roubles stored in foreign currency deposits. Experts expected that, compared to a successful year for the company in 2018, the profit of Surgutneftegaz in 2019 would fall 6.6 times- to 126 billion roubles. Therefore, the reason for the decrease in the indicator was the negative revaluation of the company's foreign currency deposits.

The return on sales was 24.1%, with the industry average of 11.4%, which is a fairly good indicator. Production profitability -31%. The current liquidity ratio is 8.65% with an industry average of 1.07% capital productivity at the end of the year was equal to 1.748 roubles, with an average trade value equal to 1.82 roubles. Inventory turnover ratio is 36.3 days, in the industry on average-12. Material consumption is equal to 4.347 roubles. Market stability is characterized by the following factors: $A1 > P1$, $A2 > P2$, $A3 > P3$, $A4 < P4$, which indicates that the company was illiquid in the reporting year (Урсаки, 2013).

PJSC Surgutneftegas annually implements a comprehensive cost reduction program aimed at reducing costs through import substitution, innovation, reuse of equipment, the introduction of energy-saving technologies, measures to improve the efficiency of production facilities and fixed assets, as well as reduce the material consumption of products. The economic effect of the cost reduction program in 2019 amounted to about 5 billion roubles, which is 82 roubles per ton of oil produced.

4. Analysis of the Main Indicators of PJSC Nk-Rosneft

Rosneft is the leader of the Russian oil industry and one of the largest public oil and gas corporations in the world, which is engaged in the exploration of hydrocarbon deposits, production and sale of oil, gas and gas condensate. Most of the total revenue of Rosneft is generated from the export of oil and oil products. Thus, at the slightest change in exchange rates, the company may incur large costs in the sale of its products (Панкратова, 2018).

Rosneft is a participant in foreign economic relations and often exports its products outside the Russian Federation. In 2020, due to the COVID-19 pandemic, many state borders were closed and it was very complex for the company to sell its products outside their country. This will undoubtedly

affect Rosneft's 2020 reporting in the form of a decline in oil and oil products sales figures. This is a series of external shocks that the company is unable to overcome and the return of indicators to their initial values is only a matter of time for the market.

In order to identify the performance of a business, let's turn to one of the most important indicators- profitability. This indicator combines the influence of many resource factors. An increase in the value of economic profitability for a company means an increase in their use of resource potential. The level of profitability is also influenced by external factors, such as the industry affiliation of the enterprise, the company's position in the competitive market, the sales market, as well as various types of regulation by the government.

Table 1: Analysis of Rosneft's Profitability Rates

Indicators	2019	2018	Alteration (+, -)
Profitability Ratio of Sales	0,11	0,09	-0,021
Production Profitability Rate	0,43	0,44	0,016
Asset Profitability Ratio	0,03	0,04	0,004
Equity Profitability Ratio	0,18	0,23	0,052
Ratio of Debt to Equity	0,04	0,04	0,005

According to Table 1, we can conclude that profitability has increased in almost all indicators in comparison with 2018. The 2.1% drop in profitability of sales means that operating profit declined between 2018 and 2019.

The 0.4% change in the return on assets tells us that the profit per rouble has increased and the efficiency of the use of assets by the Rosneft enterprise has increased. The 5.2% increase in the return on equity indicates a decrease in the efficiency of the use of equity capital. In general, there is a positive trend in the company's activities for two years (2018 and 2019), which indicates an increase in the efficiency of activities (<http://www.xn-----7kcbmkfaolw0acwp3ak9a0lg.xn--p1ai/zapasi-gaza-vmire>).

5. Analysis of the Main Performance Indicators of PJSC Tatneft

In 2018, the production volume of PJSC Tatneft amounted to 29.2 million tons. Oil production by Tatneft in 2019 amounted to 29.46 million

tons, which is 0.9% more than a year ago. In 2019, Tatneft decided to maintain oil production at the level of the previous year in the amount of 29.5 million tons and abandoned the planned increase in production due to an agreement with OPEC +.

Analysis of the financial results of Tatneft showed that revenue in 2019 increased compared to 2018 (793,237,174 thousand roubles) and amounted to 827,026,695 thousand roubles. This increase was mainly due to the growth in sales of its own oil and gas products, as well as due to the sale of its own petrochemical products (which, in principle, was absent in 2018).

However, in contrast to revenues, the company's net profit decreased by 19.04%. Tatneft explained that the results of the group of companies over the past 2 years were affected by some exceptional losses arising from the consolidation of Bank Zenit, impairment of assets for exploration and appraisal of fields outside of Tatarstan, as well as impairment of social assets for which economic benefits are not expected (<http://www.vestifinance.ru/articles/60480?page=3>).

The company's expenses also increased in 2019 and amounted to 744 344 447 roubles (in 2018- 667 419 508 roubles). This growth is explained by a significant increase in the cost of products sold and services rendered. Exploration expenditures are especially necessary for Tatneft, whose deposits are more than 80% depleted, and the recoverable oil on the territory of the republic has a high sulphur content. Thus, it seems necessary to reduce the cost of production.

As for the company's assets, here we can also notice a decrease from 828 555 115 roubles to 816 544 112 roubles. The decrease was primarily due to a decrease in cash and cash equivalents. In 2018, the company had deposits opened with credit institutions for a period not exceeding 3 months in the amount of 27,207,630 roubles. In 2019 no deposit investments has not been committed.

Tatneft's return on sales is 32.1%, which is higher than the industry average. Another very important indicator is the cost per 1 ruble of revenue. According to this indicator, Tatneft also exceeds the industry average- 0.61. The period of accounts receivable turnover in days, that is, the average period required for the company to recover debts from Tatneft from buyers was 163 days, which is more than that of competitors.

Tatneft's CAPEX indicator is 96 billion roubles, which is significantly inferior to the same indicator, for example, of Surgutneftegaz. There it is 159 billion roubles. This suggests that Tatneft should increase spending on the acquisition or modernization of fixed assets. The cost per barrel of oil

is one of the most important indicators. For Tatneft, it is \$ 4 per barrel, which is slightly higher than the same figure for Gazprom Neft- \$ 3.92 and Rosneft- \$ 3.8 (http://knowledge.allbest.ru/economy/2c0b65625a2ac79a5d43b88421216d37_0.html).

Another effective indicator of Tatneft is the return on assets, which shows the return on the use of all assets of the organization. It is 18.97%. For competing companies, it does not exceed 15%.

The capitalization of Tatneft is 1,763 billion roubles. Surgutneftegaz and Gazprom Neft are clearly lagging behind, whose figures are 1,570 billion roubles and 1,541 billion roubles, respectively. This indicator is very important for the company, as market capitalization shows the current value of the company on the stock exchange.

6. Comparative Analysis of Industry Performance with Competitors

Rosneft is not the only oil producer in the Russian Federation. A dozen large companies create oligopolistic competition in the oil sector of the Russian Federation, including: Gazpromneft, Rosneft, Tatneft, Surgutneftegaz, Bashneft and Lukoil.

One of the most important indicators for the oil industry is CAPEX (capital expenditure)- the company's expenses for the acquisition of non-current (with a period of more than 1 year) assets, as well as for their modernization. This can be both the purchase of tangible assets such as equipment, transport or real estate, or the cost of acquiring intangible assets such as licenses, patents, trademarks, etc. The company needs capital investments to increase production, maintain an optimal level of margins and, in general, to ensure sufficient profitability of the business.

This type of investment includes (Халафян и др., 2017):

- Purchase of new buildings, equipment,
- Acquisition of licenses, patents,
- Repair of equipment,
- Personnel training,
- Expansion of the existing production of the company as a whole, etc.

Too often this indicator is used to analyse the extractive industry, and in the oil and gas sector this indicator is considered as one of the most important, since it depends on many factors and can give a lot of

information about the activities of the enterprise. Typically, for labour-intensive industries, the return on this indicator is slightly higher than in capital-intensive ones. For example, laying a pipeline for an oil company is more expensive than buying a computer for an IT company and putting a programmer on it. Despite the fact that this indicator is quite individual for each of the companies, it can be calculated in a universal way for comparing oil companies (Сидняев, 2020: 98).

1. The annual profit of the company is taken and when dividing it by 12, the profit is obtained for 1 month,
2. All expenses for 1 month are deducted from the profit received,
3. A certain percentage is taken from the resulting number,
4. The remaining amount is sent at once to the development of the company.

Usually, the percentage that is taken in the third paragraph of the calculation of the indicator by generally accepted standards is 15%. Another specific indicator is OPEX- the company's operating expenses. Typically, operating costs are recurring. Operating costs include-rent of premises, salaries of employees, cost of advertising policy, insurance payments and utilities.

Table 2: Comparative Analysis of Russian Oil Companies

Company	CAPEX (billion rubles)	OPEX (billion rubles)	Cost of Goods Sold per 1 ruble	Production Cost Per Barrel
Rosneft	854	715	0,7	233,14
Gazpromneft	453	2039	0,56	284,28
Lukoil	450	457,7	0,64	270
Tatneft	96	140	0,61	300
Surgutneftegaz	159	1178	0,68	255,7
Başneft	61	106,1	0,73	330,91

Rosneft is ahead of its competitors in the Russian Federation in terms of CAPEX (see Table 2), which tells us that the company spends huge amounts of money to promote its activities and improve equipment, build research and development centres to improve efficiency. All this leads to the fact that the costs of oil production at Rosneft are decreasing over the years.

Most often, this indicator depends on what type of company the company belongs to. The cost of production per barrel of oil for state-owned companies is much lower than for private ones. So in the national company of Saudi Arabia Saudi Aramco this figure does not exceed two dollars. Operating expenses of Rosneft are also at a good level, they amount to 715 billion roubles. Costs per 1 rouble of sold products in almost all companies fluctuate between 0.55-0.7 roubles.

7. Comparative Analysis of the Results of Financial Activities of Oil Companies

The net profit of Surgutneftegaz according to International Financial Reporting Standards (IFRS) in 2019 fell eight times, to 105.5 billion roubles. At the same time, the situation is better for competitors. Thus, it follows from the IFRS report that Rosneft's net profit increased by 29% and amounted to 396.5 billion roubles. The company announced a record dividend of 33.41 roubles per share, which is 1.3 times more than in 2018. Also, the net profit of Lukoil increased by 3.4%, to 405.8 billion roubles.

Table 3: Financial Results of Oil Companies

	Surgutneftegaz	Rosneft	Lukoil	Tatneft	Gazpromneft	Slavneft
Income	1 555622592	6827526407	44471354	827026695	1 809830891	188919149
Net Profit	105478643	396526209	405759769	156046046	216871650	4722568

Similar indicators with Surgutneftegaz are only Gazprom Neft, whose profit for 2019 also fell- by 17% to 216.9 billion roubles. Sales proceeds (excluding excise, VAT and customs duties) decreased by 7% to 1.810 trillion roubles. The decrease in sales revenue was mainly due to a decrease in revenue from gas sales to Europe and other countries (Нархид и Апаче, 2019).

At the same time, the net profit of Slavneft, a Joint Venture of Gazprom Neft and Rosneft in 2019 increased by 27% compared to 2018 and amounted to 4.722 billion roubles. Revenue for the reporting period decreased by 2.5%, to 18.9 billion roubles, gross profit decreased by 27%, amounting to 2.6 billion roubles.

Table 4: Comparative Analysis of Performance Indicators

Indicators	Tatneft	Surgutneftegaz	Gazpromneft	Rosneft	Sector average
Profitability Ratio of Sales	32%	24,11%	0,28%	11,11%	11,4%
1 ruble Income Equivalent Cost	0,61	0,69	0,87	0,7	0,75
Turnover of Receivables	155,90	72,32	86,13	167	69
Stock Turnover Speed	2,97	36	11,02	10,6	12
Financial Ratio	0,70	0,95	0,26	0,184	-
Return on Assets	3,16	1,75	5,51	5,26	1,82
R/P Ratio	3,26%	2,93%	5,76%	6,34%	-
Reserve Life Index (RLF)	30,7 year	34,12 лет	17,4 year	15,7 year	-
Cost Per Barrel (Dollars)	4	4,12	3,927	3,8	3,75

The main indicator of the performance of an oil company is the profitability of sales. Profitability indicators are the most important characteristics of the actual environment for the formation of profit and income of enterprises. For this reason, they are indispensable elements of comparative analysis and assessment of the financial condition of the enterprise. For this reason, they are indispensable elements of comparative analysis and assessment of the financial condition of the enterprise. While analysing production, profitability indicators are used as a tool for investment policy and pricing (Урсаки, 2013).

If profit is expressed in absolute amount, then profitability is a relative indicator of the intensity of production, since it reflects the level of profitability relative to a certain base. An organization is profitable if the amount of proceeds from the sale of products is sufficient not only to cover

the costs of production and sale, but also to generate profits. Profitability can be defined in different ways.

Profitability indicators characterize the efficiency of the enterprise as a whole, the profitability of various activities (production, business, investment), cost recovery, etc. They more fully than profit characterize the final results of management, because their value shows the ratio of the effect to the available or used resources. They are used to assess the performance of an enterprise and as a tool in investment policy and pricing (Хорев и др., 2012: 20).

The return on sales of Tatneft is 32.1%. This figure is significantly higher than that of other companies: Surgutneftegaz- 24.1%, Gazprom Neft- 0.28%, Rosneft- 11.1%. Another very important indicator is the cost per 1 rouble of revenue. According to this indicator, Tatneft is in the lead- 0.61, that is, its costs are the lowest among the considered competitors.

Table 5: Comparative Analysis of Economic Indicators of Oil Companies

	Surgutneft egaz	Rosneft	Lukoil	Tatneft	Gazprom neft	Slavnef t
Profitability Ratios						
Profitability Ratio of Sales	0.079	0.063	0.771	0.104	0.228	-0.152
Overall Profitability	0.079	-0.018	0.629	0.095	0.1904	-0.214
Profit Margin	0.068	0.009	0.628	0.627	0.196	-0.112
Return On Equity	0.025	0.020	0.263	0.08	0.547	-0.112
Return On Capital Involved	0.028	0.035	0.249	0.11	0.262	-0.106
Profitability Of Producti	0.112	0.004	0.199	0.212	-0.009	-0.153

on Assets						
Profitability Of Current Assets	0.080	0.009	0.380	0.116	0.401	0.207
Return On Fixed Assets	0.033	0.006	0.145	0.115	0.222	-0.097
Profitability Of Enterprise Assets	0.023	0.004	0.105	0.058	0.143	0.066
Turnover Rates						
Inventory Turnover	0.069	0.025	0.000	0.053	0.025	0.035
Accounts Receivable Turnover	0.194	0.736	0.697	0.516	0.3181	0.502
Turnover Of Current Assets	0.848	1.024	1.651	0.581	0.4872	0.544
Equity Turnover	2.759	0.474	2.385	0.841	0.358	0.999
Accounts Payable Turnover	0.094	0.553	0.867	0.154	0.339	0.205
Capital Structure Ratios						
Inventory ratio	10.215	-58.298	-58.324	5.546	-24.213	-5.25
Short-Term	0.614	0.423	0.753	0.633	0.517	0.3605

Debt Ratio						
Net Assets	430485556 3	6215736 425	5684235 634	4278265 164	50055413 9	131555 187

Comparing the turnover ratios, it can be seen that the inventory turnover at Surgutneftegaz is the highest compared to its competitors. Also, Surgutneftegaz is the leader in the equity capital turnover ratio. The first indicator shows the rate at which inventory is produced and discharged from the warehouse. And the second indicator shows the effectiveness of equity capital management.

It is also worth noting that Surgutneftegas has a high reserve ratio and it is equal to 10.215. This coefficient shows the extent to which the material stocks of the organization are covered by its own circulating assets (Рафалович, 2018).

8. Proposals to Improve the Financial Results of Oil Companies

The oil and gas complex is one of the most important components of the fuel and energy base of Russia. Its development strategy determines the specifics of the oil and gas industry and forecast indicators, as well as a system of interconnectedness of decisions to increase energy independence and state security, import and export policy and the capabilities of the oil and gas industry.

The problem of increasing the extraction of minerals, in particular oil and gas, in Russia must be solved not by increasing the production area, but by modernizing the technical component of the oil and gas complex. These are the main features of the oil and gas industry (Форман, 2019).

Gas infrastructure of industrial enterprises cities and villages on the territory of natural gas production is developed at a high rate. Natural gas gave impetus to the production of a number of energy carriers and chemicals, which are widely used in the national economy, but most of all it is consumed in industry, in particular cement, metallurgical and chemical.

The main direction of solving the problem of import substitution in the oil and gas industry is the development and involvement of research and design institutes (NIPI) in the production of equipment. Since they have a significant knowledge base about the investigated geological objects, used domestic and foreign equipment. The main role of institutions in this problem is the analysis of domestic and foreign equipment, the detection of problems of the domestic analogue and the formation of recommendations for its modernization.

Thus, solving the problem of import substitution in the oil and gas industry will save huge financial resources within the country, strengthen domestic companies in the domestic market, and also compete in the world market. One of the factors affecting the growth of efficiency is the reduction in the cost of oil companies (Панкратова, 2018).

Factors to reduce the cost of production include:

- Raising the technical level of production: the introduction of new progressive technology, mechanization and automation of production processes; improvement of the applied equipment and production technology; improving the use and application of new types of raw materials and materials; other factors that increase the technical level of production. Continuous technical progress is a decisive condition for cost reduction. The introduction of new technology, comprehensive mechanization and automation of production processes, improvement of technology, the introduction of advanced types of materials can significantly reduce the cost of production.

- Improvement of the organization of production and labour: development of production specialization; improving organization and service; improving the organization of work; improving production management and reducing production costs; improving the use of fixed assets; improvement of material and technical supply and use of material resources; reduction in transportation costs; elimination of unnecessary costs and losses; other factors that increase the level of organization of production. Expansion of specialization and cooperation is a serious reserve for reducing production costs (Грачева, 2015).

The main sources of reducing the cost of production are saving material costs through the use of resource-saving technologies, replacing expensive materials with less expensive ones, using rational schemes for cutting materials, reducing material waste, reducing the costs associated with the delivery of materials from supplier enterprises to the consumer enterprise (Мхитарян, 2020).

Cost reduction depends on the activities of the enterprise. Each subdivision should have economic groups that ensure cost reduction, for example, cost centres and responsibility centres are allocated as part of structural subdivisions and structural units of an enterprise, which provide intra-firm management, which makes it possible to assess the contribution of each subdivision to the final results of the enterprise, decentralize cost management, and also to monitor the formation of these costs at all levels of management, which in general significantly increases the economic

efficiency of management. At the same time, the allocation of financial responsibility centres is dictated by the need to regulate costs and final financial results based on estimated indications, the responsibility for which is borne by the heads of the structural divisions of the enterprise.

The research offers to introduce a set of measures for the implementation of a competence model and a system for stimulating the results of labour activity of personnel based on the development of grades of competencies, which contains the following (Миркин, 2020).

1. Notification of employees about the implementation of the competency model in Tatneft 2 months before the system is put into operation,
2. Creation of a regulatory framework for the implementation of the provision on bonuses,
3. Introduction of a provision on bonuses, etc. into the collective agreement.

Below is a list of problems that are eliminated when introducing a competency model and methodology for the formation of professional competencies and improving the quality of personnel.

Table 6: The Main Problems of Companies

Weakly organized competence development work in research and development field	
Lack of development of programs to increase the susceptibility of business structures to technological innovations	Underdevelopment of incentive programs for the development of innovations in higher education institutions and among production personnel
The inability of most organizations to create qualitatively new technologies and radical innovations	
The inability of most organizations to create qualitatively new technologies	The ill-conceived policy of retention of qualified personnel

The leading goals of the implementation of the competence model of the personnel of an oil company can be considered (Ниворожкина, 2018, 34):

- Intensification of the learning process, including through interactivity and the use of innovative teaching methods,

- Intensive development of the personality of the employee and the immediate leader, democratization of their joint activities and communication,

- Individualization of the learning process,

- Orientation towards creative teaching and active learning, the manifestation of the initiative of the employees themselves in shaping themselves as a future professional,

- Infrastructure of the educational process: technical support, personnel, personnel motivation (material interest, career growth),

- Modernization of means, methods, technologies and material base of training, contributing to the formation of innovative thinking of the future professional, which, undoubtedly, will become the basis for the rational construction of a career management system.

Summarizing all of the above, we can make several conjectural methods for improving company performance (Панкратова, 2018: 77):

- Expansion of the geography of oil production and exploration,

Increase in potential hydrocarbon reserves: The Middle East, the northern shelf of the Caspian Sea, the countries of the Guinean coast, Venezuela, Mexico, etc.

- Placement of financial resources in more stable currencies in order to prevent further losses due to exchange rate differences. For example, in currencies such as the Japanese yen, Swiss franc, etc.,

- Implementation of our own pipelines and other oil transportation routes,

The risk of an increase in operating and capital costs due to an increase in the cost of transportation of oil and petroleum products has a significant impact on the financial results of the company.

- Development of more economical ways of prospecting and exploiting hydrocarbon deposits,

This can help to reduce the growing costs of the enterprise for production in conditions of inaccessible fields.

- Increase in the range of produced petroleum products,

- Digitalization of workplaces and production processes,

Reducing human resource costs and preventing human factors in workplaces that can lead to serious accidents and industrial injuries.

- Diversification of risks by expanding the scope of activities (Салин и Чурилова, 2019: 89).

9. Conclusion

Today, the Russian oil industry, despite its seeming stability in the face of instability in oil and oil products prices, is faced with the need to find solutions to problems, both internal and external, which, in turn, impede the stable development of the enterprise.

Among the industry's external challenges, one can single out increased competition in Russia's traditional foreign markets, the risks of long-term persistence of discriminatory restrictions (sanctions) by Western countries on the access of Russian oil and gas companies to innovative technologies and the market for borrowed funds, a slowdown in growth and a drop in oil production, low rates of application of new technologies and innovations, a high degree of wear and tear of fixed assets of the oil refining industry and low quality of petroleum products, as well as a violation of international coordination and cooperation in the oil industry (a ban on investments and participation in a number of joint industry projects).

It is also worth mentioning the obvious problem of the unpredictable dynamics of world oil prices. In other words, against the backdrop of negative dynamics in world oil prices and in the context of the current Western financial and technological sanctions aimed specifically at the Russian oil sector, the industry's usual investment mechanism (obtaining loans from Western banks for new investment projects) has been disrupted and the technological possibilities of its development are limited.

Thus, the industry in its investment development is forced to focus only on its own funds, the volume of which decreases with a decrease in the world oil price. And low world oil prices, in turn, reduce the possibility of state support for new projects, as well as create risks, provided that low world oil prices remain in the medium term, and an additional increase in the tax burden on the industry.

As a result, a drop in investment and a revision of medium- and long-term development plans, both at the sectoral level and at the level of individual oil companies, are inevitable in the Russian oil industry. The situation is aggravated by the fact that Russian oil production has entered a period of structural transformation, when the retired production volumes from the existing fund of fields need to be gradually replaced by production from new, usually much more expensive projects. In addition, significant investments in exploration are required to ensure an adequate increase in "black gold" reserves.

It should also be noted that not only the geography of Russian oil production is changing, but also the nature of the fields being developed. So, if today 70% of oil is produced at unique and large fields of the level of Samotlorsky, Urengoy, Romashkinsky, Vankorsky, etc., then in the medium term, the main increase in production will be provided by small oil fields with initial recoverable reserves of less than 15 million tons of oil. And this, in turn, will require a fundamentally different approach to their development, which is fundamentally different from the traditional practice of working with giant fields.

Thus, the key internal challenge for the development of the Russian oil industry is the expected qualitative change in the structure of oil production in favour of much more expensive projects, which will be very difficult to develop in the context of the current conjuncture of world oil prices and a shortage of investment sources.

References

Анализ использования материальных ресурсов предприятия ОАО Газпром нефтехим Салават (URL: http://knowledge.allbest.ru/economy/2c0b65625a2ac79a5d43b88421216d37_0.html) (Дата Запроса: 08.03.2021).

Грачева, М.Л. (2015). Методика оценки инвестиционной привлекательности инновационных проектов, реализуемых в рамках государственночастного партнёрства. *Креативная экономика*, 3(6), 21-30.

Ендовицкий, Д. А. (2009). Системный подход к экономическому анализу активов хозяйствующего субъекта. *Экономический анализ: теория и практика*, 15(144), 2-11.

Журнал «Вести. Экономика», статья «Топ-10 стран с самыми большими запасами нефти» URL: <http://www.vestifinance.ru/articles/60480?page=3> (Дата Запроса: 11.03.2021).

Интернет-журнал «Нефть-газ-ископаемые.рф» URL: http://www.xn---7kcbmkfaolw0acwp3ak9a0lg.xn--p1ai/zapasi-gaza_v_mire (Дата Запроса: 11.03.2021).

Кулаичев, А.П. (2018). *Методы и средства комплексного анализа данных: Учебное пособие*. Москва: Форум.

Макшанов, А.В. (2019). *Технологии интеллектуального анализа данных*. Москва: Лань.

- Макшанов, А.В. и Журавлев, А.Е. (2018). *Технологии интеллектуального анализа данных: Учебное пособие*. Санкт Петербург: Лань.
- Миркин, Б. Г. (2020). *Введение в анализ данных*. Москва: Юрайт.
- Мхитарян, В. С. (2020). *Теория планирования эксперимента и анализ статистических данных*. Москва: Юрайт.
- Нархид, Н. и Апаچه, К. (2019). *Потоковая обработка и анализ данных*. Санкт Петербург: Питер.
- Ниворожкина, Л.И., Арженовский, С.В. и Рудяга, А.А. (2018). *Статистические методы анализа данных: Учебник*. Москва: Риор.
- Панкратова, Е.В., Смирнова, И.Н. и Мартынова, Н.Н. (2018). *Анализ данных в программе SPSS для начинающих*. Москва: Ленанд.
- Рафалович, В. (2018). *Дата майнинг или интеллектуальный анализ данных для занятых*. Москва: Смартбук.
- Салин, В. Н. и Чурилова, Э. Ю. (2019). *Статистический анализ данных цифровой экономики в системе статистика*. Москва: КноРус.
- Сидняев, Н. И. (2020). *Теория планирования эксперимента и анализ статистических данных*. Москва: Юрайт.
- Симчера, В.М. (2018). *Методы многомерного анализа статистических данных*. Москва: Финансы и статистика.
- Статистика «Мировой экспорт и импорт нефти» URL: <http://www.ereport.ru/articles/commod/oilcount.htm> (Дата Запроса: 11.03.2021).
- Тюрин, Ю.Н. и Макаров, А.А. (2017). *Анализ данных на компьютере*. Москва: ИД ФОРУМ.
- Урсаки, В. С. (2013). *Модели выбора инвестиционных проектов в условиях неопределенности и риска*. Нижний: Новгород.
- Форман, Дж. (2019). *Много цифр: Анализ больших данных при помощи эксель*. Москва: Альпина Паблишер.
- Халафян, А. А., Боровиков, В. П. и Калайдина, Г. В. (2017). *Теория вероятностей, математическая статистика и анализ данных*. Москва: Ленанд.
- Хорев, А.В., Семенова, С.В., Кропотова, И.В. и Оскирко, А.В. (2012). *Применение корреляционно-регрессионного анализа при*

долгосрочном прогнозировании спроса на газохимическую продукцию. *Журнал вести газовой науки*, 12, 14-22.

Чашкин, Ю.Р. (2017). *Математическая статистика. Анализ и обработка данных*. Ростов на Дону: Феникс.

CHAPTER V
**FINANCIAL DEVELOPMENT AND
UNEMPLOYMENT RATE IN TURKEY: NEW
EVIDENCE FROM NARDL APPROACH**

Assist. Prof. Dr. Ecenur Uğurlu YILDIRIM

Social Sciences University of Ankara, e-mail:

ecenur.yildirim@asbu.edu.tr

Orcid ID: 0000-0001-6465-4781

1. Introduction

For more than four decades, the relation between financial development and economic growth has been one of the most crucial subjects in the literature. The financial system is believed to have an important role in increasing economic growth via enhancing the saving rate and distributing these savings more efficiently (see Levine, 1991; Beck et al., 2000). Since savings are not distributed efficiently in countries with lagged financial systems, it is expected to observe a direct relationship between financial turmoil and unemployment. The 2008 crises' consequence, which is the failure of the financial system resulting in an increased unemployment rate in most countries, proves this statement. However, there is a little work that investigates this direct relationship between financial development and unemployment level in literature, and this paper aims to fill this gap.

Apart from the extant literature, this study examines the link between Turkey's financial development and unemployment level by utilizing a nonlinear autoregressive distributed lag (NARDL) approach. Thanks to this novel approach, the long- and short-term asymmetric relationships among variables are demonstrated. As far as we know, this study is the first one that examines the asymmetric relation between the unemployment rate and financial development for Turkey. The sample period examined in this study is from January 2005 to December 2019, and all observations are monthly. In addition to the financial market development and unemployment rate, economic growth indicator is also included in the model, since the literature demonstrates the effect of economic growth both on the unemployment level and financial development. Moreover, by controlling for economic growth, we can observe the direct impact of financial development on unemployment instead of the influence of it indirectly through economic growth. Consumer price index, stock broad money indicator, and the openness of trade are also included in the model

as control variables. Our findings imply that positive changes in the financial market development level significantly reduce the unemployment rate both in the short- and long-term. Moreover, although negative changes in development do not have a significant effect on the unemployment rate in the long-run, they have a significant direct short-term influence on the unemployment rate. Furthermore, this short-term relationship is bidirectional. While positive changes in the unemployment level reduce financial development, the negative ones increase it. In the long-run, in contrast, the unemployment level does not have a significant influence on financial market development. Our analysis also shows that while economic growth does not have long-term impact either on the unemployment level or financial development, it has a negative short-term influence on unemployment rate and a positive short-run impact on financial development.

The rest of the paper is structured as follows. Section one briefly explains the previous studies. The second section defines variables and methodology. In the third section, empirical results are reported. The final section sets out the conclusions.

2. Previous studies

There is extensive literature on the relationship between development in the financial sector and economic growth. The financial system, particularly banking, has a crucial effect on improving economic growth by deciding and financing productive investment (Schumpeter, 1912). Theoretical studies claim that financial development influences economic growth in two ways. First, existing resources for investment increase, as financial development leads to a higher saving rate, which increases economic growth. Since the financial institutions cause a reduction in information asymmetry, the mobilization of the savings become cheaper, which results in greater saving rates, investment, and thus higher economic growth (Shaw, 1973; McKinnon, 1973). Second, financial development leads to greater economic growth, as it enhances the investment's productivity by distributing savings more effectively. Empirical studies also present that financial development directly influences economic growth (King and Levine, 1993a, b). Another strand of the literature is on the link between economic growth and the stock market. These studies claim that the more liquid the stock markets are, the higher the investment will be in the long run, and it will enhance productivity growth (Levine, 1991).

Since financial development enhances economic growth via increased productivity of investment, it is expected to face an increasing employment rate in financially developed countries. Researchers examine the effect of

financial development on the unemployment rate indirectly by using changes in FDI and income distribution. Recent crises in 2008 show that the failure of the financial system leads to increased unemployment rates worldwide and provides additional proof about the significant effect of financial sector development on the employment level.

In the extant literature, limited studies examine the relationship between the unemployment rate and financial development directly. Gatti et al. (2011) investigate this relationship empirically by using market capitalization and banking concentration as proxies. They find that although there is no causal link between financial development and unemployment when the labor market environment is not considered, financial development affects the unemployment rate negatively if the labor market context is taken into account. Rendon (2001) states that since firms' access to finance expands, they can finance labor adjustment costs easily; thus, they can modify their employment level more quickly. Therefore, since labor market adjustment cost has a small effect on employment in more developed financial markets, he concludes that financial development enhances the employment rate. In this paper, we extend these studies by explicitly demonstrating the asymmetric relationship between the unemployment rate and financial development in Turkey.

This paper is also related to the literature on the relation between the unemployment rate and economic growth, as economic growth is included to the model to prevent any biases. The link between unemployment and economic growth was empirically firstly demonstrated by Okun (1962), and called as Okun law since after. Okun law claims that the growth of the GDP of a country will be approximately 2 percent lower for every 1 percent rise in the unemployment rate. While some empirical studies support this view (see Ball et al., 2013; Kitov, 2011), some others state that the relation changes according to the country and the sample period employed (see Lal et al., 2010; Sönger & Stiassny, 2002). We believe that examining the asymmetric relation between unemployment and economic growth in Turkey will shed further light on this ongoing debate.

3. Data and methodology

3.1. Data

To assess the effect of financial sector development on unemployment, the total unemployment rate as a percent of all persons in Turkey, hereafter UNEM, is employed as an indicator of unemployment. The data is obtained from the webpage of the Federal Reserve Bank of St. Louis. Following Levine and Zervos (1998), as a development of the stock market indicator, the logarithmic values of the market capitalization, hereafter LNMC, is

utilized. Rajan and Zingales (1998) criticize this proxy by claiming that it only presents the stock market size without displaying the real amount of funding obtained by issuers. However, Yartey (2008) asserts that this ratio is one of the best proxies in analyzing the impact of the stock market on the economic growth, as there is a direct correlation between the total size of the market and the capability of the capital mobilization and diversification of risk. The data is gathered from the official webpage of Borsa İstanbul. Economic growth in Turkey, hereafter GDP, is measured by the monthly GDP index¹. As control variables, logarithmic values of broad money, LNM2, consumer price index, CPI, and openness of trade, OPEN, are used. All these variables are obtained from the webpage of the Federal Reserve Bank of St. Louis. The data period is between January 2005 and December 2019. Monthly data are employed.

Descriptive statistics and the graphical demonstrations of each variable are shown in Table 1 and Figure 1, respectively.

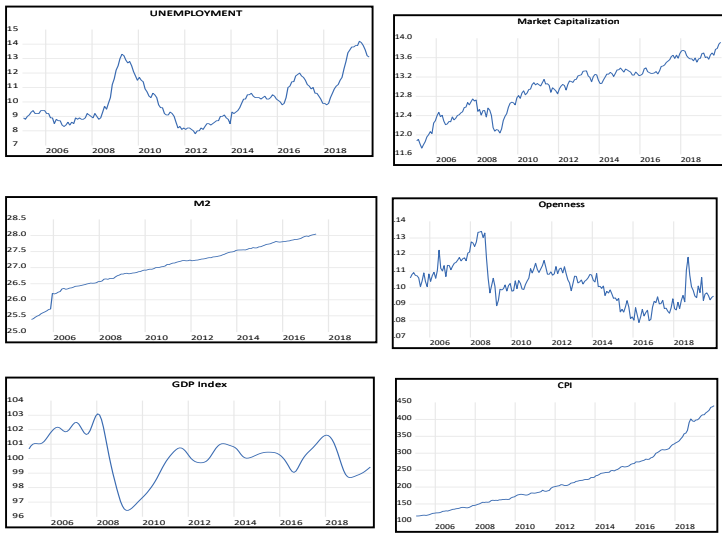


Figure 1: Historical unemployment rate, market capitalization, GDP index, openness to trade, M2, and CPI

Notes: Unemployment is total unemployment rate as a percent of all persons in Turkey, Market Capitalization is stock market capitalization in Turkey, Openness is calculated by dividing the total values of exports and imports in Turkey to the GDP, M2 is the stock broad money, and CPI is the consumer price index in Turkey.

¹ As monthly GDP data is not released for Turkey, monthly GDP index for Turkey is employed.

Table 1: Descriptive statistics

	UNEM	LNMC	GDP	OPEN	LN2	CPI
Mean	10.134	12.978	100.175	0.103	27.042	225.315
Median	9.900	13.082	100.352	0.103	27.144	206.020
Maximum	14.200	13.919	103.096	0.134	28.047	440.500
Minimum	7.800	11.727	96.433	0.079	25.388	114.490
Std. Dev.	1.585	0.522	1.482	0.012	0.654	85.955
Skewness	0.809	-0.460	-0.606	0.303	-0.608	0.800
Kurtosis	2.829	2.279	3.149	2.990	2.830	2.792
Jarque-Bera	19.864	10.254	11.169	2.756	9.412	19.503
Probability	0.000	0.006	0.004	0.252	0.009	0.000
Observations	180	180	180	180	150	180

Notes: UNEM, LNMC, GDP, OPEN, LN2, and CPI indicate unemployment rate, logarithmic values of stock market capitalization, GDP index, openness of trade, logarithmic values of M2, and consumer price index, respectively.

3.2. Methodology

In this study, the nonlinear autoregressive distributed lag (NARDL) methodology is employed to analyze the asymmetric relationship among the unemployment rate, development in the financial market, and economic growth.

First of all, stationarity characteristics of the variables are examined by employing augmented Dickey-Fuller, GLS-detrended Dickey-Fuller, and Phillips-Perron unit-root tests (see Dickey & Fuller, 1979; and Phillips & Perron, 1988). Variables are considered as integrated of order zero (stationary) if the null hypotheses are rejected. The order of integration presents the number that a series to be differentiated to become stationary. NARDL approach requires the variables not to be integrated of order two (Shin et al., 2014; Peseran & Shin, 1998).

Then, in order to investigate the long-run cointegration among variables, Bounds-test procedure is applied. The error-correction displays of the linear ARDL models are shown in equations 1 and 2.

$$\Delta UNEM_t = \vartheta + \gamma_1 UNEM_{t-1} + \gamma_2 LNM C_{t-1} + \gamma_3 GDP_{t-1} \quad (1)$$

$$+ \gamma_4 CPI_{t-1} + \sum_{i=1}^{p-1} \mu_1 \Delta UNEM_{t-i} + \sum_{i=0}^{q-1} \mu_2 \Delta LNM C_{t-i} \\ + \sum_{i=0}^{q-1} \mu_3 \Delta GDP_{t-i} + \sum_{i=0}^{q-1} \mu_4 \Delta CPI_{t-i} + \varepsilon_t$$

$$\Delta LNM C_t = \vartheta + \gamma_1 LNM C_{t-1} + \gamma_2 UNEM_{t-1} + \gamma_3 GDP_{t-1} \quad (2)$$

$$+ \gamma_4 LNM 2_{t-1} + \gamma_5 OPEN_{t-1} + \sum_{i=1}^{p-1} \mu_1 \Delta LNM C_{t-i} \\ + \sum_{i=0}^{q-1} \mu_2 \Delta UNEM_{t-i} + \sum_{i=0}^{q-1} \mu_3 \Delta GDP_{t-i} \\ + \sum_{i=0}^{q-1} \mu_4 \Delta LNM 2_{t-i} + \sum_{i=0}^{q-1} \mu_5 \Delta OPEN_{t-i} + \varepsilon_t$$

where the first differences of variables are shown by Δ . Akaike Information Criterion (AIC) is utilized to get the lag lengths, which are demonstrated by p and q . γ and μ represent long- and short-run coefficients, respectively.

Finally, the long- and short-run asymmetric links among the variables in interest are analyzed with NARDL models. NARDL models prevent misleading results that might occur in ARDL models due to the nonlinear relationship between variables. Moreover, NARDL is exempt from endogeneity and convergence problems (Shin et al., 2014). The nonlinear long-term cointegrating regression used in this paper is as follows;

$$y_t = \lambda^+ x_t^+ + \lambda^- x_t^- + u_t \quad (3)$$

where x_t and y_t indicate $UNEM$ and $LNM C_t$, and λ^+ and λ^- show long-term parameters. x_t , which is a $k \times 1$ vector of regressors, can be demonstrated as the summation of the initial amount, positive and negative partial sums (x_{0+} , x_t^+ , x_t^-). Mathematical demonstrations of the positive and negative partial sums are given in equations 4 and 5, respectively.

$$x_t^+ = \sum_{i=1}^t \Delta x_i^+ = \sum_{i=1}^t \max(\Delta x_i, 0) \quad (4)$$

$$x_t^- = \sum_{i=1}^t \Delta x_i^- = \sum_{i=1}^t \max(\Delta x_i, 0) \quad (5)$$

The error-correction display of the NARDL models used in this study to conduct empirical analyses are as follows;

$$\begin{aligned} \Delta UNEM_t = & \vartheta + \tau UNEM_{t-1} + \beta_1^+ LNM C_{t-1}^+ + \beta_1^- LNM C_{t-1}^- \\ & + \beta_2 GDP_{t-1} + \beta_3 CPI_{t-1} + \sum_{i=1}^{p-1} \rho \Delta UNEM_{t-i} \\ & + \sum_{i=0}^{q-1} \vartheta_1^+ \Delta LNM C_{t-i}^+ + \sum_{i=0}^{q-1} \vartheta_1^- \Delta LNM C_{t-i}^- \\ & + \sum_{i=0}^{q-1} \vartheta_2 \Delta GDP_{t-i} + \sum_{i=0}^{q-1} \vartheta_3 \Delta CPI_{t-i} + \varepsilon_t \end{aligned} \quad (6)$$

$$\begin{aligned} \Delta LNM C_t = & \vartheta + \tau LNM C_{t-1} + \beta_1^+ UNEM_{t-1}^+ + \beta_1^- UNEM_{t-1}^- \\ & + \beta_2 GDP_{t-1} + \beta_3 LNM 2_{t-1} + \beta_4 OPEN_{t-1} \\ & + \sum_{i=1}^{p-1} \rho \Delta LNM C_{t-i} + \sum_{i=0}^{q-1} \vartheta_1^+ \Delta UNEM_{t-i}^+ \\ & + \sum_{i=0}^{q-1} \vartheta_1^- \Delta UNEM_{t-i}^- + \sum_{i=0}^{q-1} \vartheta_2 \Delta GDP_{t-i} \\ & + \sum_{i=0}^{q-1} \vartheta_3 \Delta LNM 2_{t-i} + \sum_{i=0}^{q-1} \vartheta_4 \Delta OPEN_{t-i} + \varepsilon_t \end{aligned} \quad (7)$$

where long-term coefficients are shown by τ and β , and short-term coefficients are represented by ρ and ϑ .

Following Shin et al. (2014), in order to examine the existence of the long- and short-term asymmetries, Wald-test is applied. By employing $\lambda^+ = -\beta_n^+/\tau$ and $\lambda^- = -\beta_n^-/\tau$ equations, the long-run symmetry, which is $\lambda^+ = \lambda^-$ is tested. To examine the short-run symmetry, the null-hypothesis of $\sum_{i=0}^{q-1} \vartheta_k^+ = \sum_{i=0}^{q-1} \vartheta_k^-$ is tested, where k equals to 1 and 2.

In the next section, the findings of these empirical analyses are demonstrated.

Table 2: Results of the unit-root tests

	Augmented Dickey-Fuller				Dickey-Fuller GLS				Phillips-Perron	
	Intercept		Intercept and Trend		Intercept		Intercept and Trend		Intercept	Intercept and Trend
	Stat.	Lag	Stat.	Lag	Stat.	Lag	Stat.	Lag	Stat.	Stat.
<i>Panel A: Levels</i>										
UNE										
M	-2.450	4	-3.021	4	-2.007	4	-3.015	4	-1.445	-1.961
LNM										
C	-1.247	0	-3.056	0	1.110	0	-2.479	0	-1.269	3.226*
GDP	-2.655*	11	-2.611	11	2.356**	11	-2.561	11	-2.217	-2.283
OPEI	-2.631*	0	581**	0	2.554**	0	1.236**	0	-2.384	3.507*
LNM										
2	-2.657*	5	3.879**	0	1.280	5	-1.040	5	3.300**	3.994*
CPI	5.022	4	2.662	4	5.711	4	0.326	5	5.787	2.272
<i>Panel B: First Differences</i>										
UNEM	-3.900***	3	-3.902**	3	-3.487***	3	3.883**	3	9.876***	9.858**
LNM	-12.932***	0	12.899**	0	12.413***	0	12.847***	0	12.947***	12.915***
GDP	-4.617***	9	-4.591***	9	1.945**	10	2.813*	10	3.537***	3.524**
OPEI	-14.939***	0	14.896**	0	13.263***	0	14.496***	0	15.525***	15.475***
LNM	-4.269***	4	-4.606***	4	4.192***	4	4.570***	4	12.723***	13.166***
CPI	-3.907***	4	-7.287***	3	2.732***	4	7.327***	3	8.770***	9.648***

Notes: UNEM, LNM, GDP, OPEI, LNM2, and CPI indicate unemployment rate, logarithmic values of stock market capitalization, GDP index, openness of trade, logarithmic values of M2, and consumer price index, respectively. Schwarz Information Criterion (SIC) is used automatically to determine lag lengths Superscripts ***, **, and * show significance of 1 percent, 5 percent and 10 percent, respectively.

4. Empirical results

The findings of the unit-root tests, which is the initial step of our empirical analysis, are demonstrated in Table 2, for levels and the first differences. All the unit-root tests employed in this study indicate that variables in interest are either integrated of order zero or one. Therefore, ARDL and NARDL models, which require variables to be integrated of order less than two, can be conducted without hesitancy (see Shin et al., 2014; Peseran & Shin, 1998).

In the second step, the bounds test technique is applied to figure out the long-run cointegration among variables. The findings are presented in Table 3. We reject the null hypothesis of no cointegrating link for both of the models. Therefore, our results indicate there is a long-run cointegration among variables in interest at least at five percent level.

Table 3: Results of the Bounds tests

Cointegration Hypotheses	F Stat.
$F(\text{UNEM}_t/\text{LNMC}_t^+, \text{LNMC}_t^-, \text{GDP}_t, \text{CPI}_t)$	2.416*
$F(\text{LNMC}_t/\text{UNEM}_t^+, \text{UNEM}_t^-, \text{GDP}_t, \text{LNM2}_t, \text{OPEN}_t)$	5.829***

*Notes: Bounds testing procedure results are presented in Table 3. UNEM, LNMC, GDP, OPEN, LNM2, and CPI indicate unemployment rate, logarithmic values of stock market capitalization, GDP index, openness of trade, logarithmic values of M2, and consumer price index, respectively. Superscripts ***, **, and * show significance of 1 percent, 5 percent and 10 percent, respectively. Superscripts + and - show positive and negative changes in related variables, respectively.*

The findings of the Wald tests that have a null hypothesis of long-term and short-term symmetry are given in Table 4. According to the Wald test results, although positive and negative changes in related variables seem to have symmetric influence on dependent variables in the long-term, they influence dependent variables asymmetrically in the short-run. Therefore, employing NARDL approach is appropriate for our model.

Table 4: Results of the Wald tests

Panel A. Long-run asymmetry		
Dep. Var.	$W_{LR}(\text{UNEM})$	$W_{LR}(\text{LNMC})$
DUNEM		-0.515
DLNMC	1.516	
Panel B. Short-run asymmetry		
Dependent variables	$W_{SR}(\text{UNEM})$	$W_{SR}(\text{LNMC})$
DUNEM		2.720**
DLNMC	4.558***	

Notes: UNEM, and LNMC indicate unemployment rate and log values of stock market capitalization, respectively. $W_{LR}(UNEM)$ and $W_{LR}(LNMC)$ indicate the Wald tests' findings for long- and short-run, respectively. Superscripts ***, **, and * show significance of 1 percent, 5 percent and 10 percent, respectively.

The results of the estimated NARDL models, which is the last step of our analysis, are given in Tables 5 and 6. In Table 5, the impacts of independent variables on the unemployment rate in Turkey are presented. Our findings indicate that in the long-term, direct changes in financial development have a significant negative impact on the unemployment rate, and the negative changes do not affect unemployment significantly. These results show that in the long-run, financial development enhances the productivity of investment, which reduces the unemployment rate. Secondly, economic growth does not seem to have a significant influence on the unemployment rate in the long-run. This finding supports Barışık et al. (2010) and Umut (2011), who empirically show economic growth does not have an influence on the unemployment rate in Turkey by employing Markov-switching approach and Granger causality methodology, respectively. Moreover, consistent with the literature, our findings demonstrate that increase in the inflation rate enhances the unemployment rate in the long-run (Friedman, 1977).

Table 5: Results of the NARDL estimation: $\Delta UNEM_t$ as a dependent variable

<i>Panel A: Estimated coefficients (Adj. R²= 0.4146)</i>				
Exp. Var.	Coef.	Robust Std. Error	t-stat.	Prob.
C	2.541	2.419	1.050	0.295
UNEM _{t-1}	-0.063	0.028	-2.208	0.029
LNMC _{t-1} ⁺	-0.198	0.116	-1.702	0.091
LNMC _{t-1} ⁻	-0.169	0.156	-1.088	0.278
GDP _{t-1}	-0.020	0.022	-0.905	0.367
CPI _{t-1}	0.002	0.001	2.542	0.012
DUNEM _{t-1}	0.136	0.068	1.992	0.048
DUNEM _{t-2}	0.199	0.064	3.113	0.002
DUNEM _{t-3}	-0.227	0.066	-3.454	0.001
DLNMC _t ⁺	-0.736	0.362	-2.032	0.044
DLNMC _{t-1} ⁺	0.140	0.494	0.284	0.777
DLNMC _{t-2} ⁺	-0.903	0.373	-2.420	0.017
DLNMC _t ⁻	-0.027	0.350	-0.078	0.938

DLNMC _{t-1} ⁻	-0.820	0.515	-1.593	0.113
DLNMC _{t-2} ⁻	1.006	0.435	2.314	0.022
DGDP _t	1.418	1.609	0.882	0.379
DGDP _{t-1}	-4.868	4.485	-1.086	0.279
DGDP _{t-2}	5.790	4.568	1.268	0.207
DGDP _{t-3}	-2.899	1.712	-1.693	0.092
DCPI	0.001	0.006	0.220	0.826

Panel B: Long-Run Coefficients for the asymmetric parameters

LNMC ⁺	-3.152*	LNMC ⁻	2.699
-------------------	---------	-------------------	-------

*Notes: Panel A demonstrates the error correction display of the NARDL model results, in which the dependent variable is $\Delta UNEM_t$. $UNEM$, $LNMC$, GDP , $OPEN$, $LNMC2$, and CPI indicate unemployment rate, logarithmic values of stock market capitalization, GDP index, openness of trade, logarithmic values of M2, and consumer price index, respectively. Exp. Var. indicates the explanatory variables. Heteroskedasticity and autocorrelation robust standard errors and t-statistics, obtained via Newey-West (1987), are shown. The positive and negative partial sums are demonstrated with superscripts “+” and “-”, respectively. In panel B, the long-run coefficients related to positive and negative alterations of the corresponding variables are demonstrated, respectively. Superscripts ***, **, and * show significance of 1 percent, 5 percent and 10 percent, respectively.*

Short-term coefficients, on the other hand, state that, while positive changes in financial development still influence the unemployment rate negatively, the negative changes in the development in financial markets increases the unemployment rate significantly. Moreover, as can be seen from Table 4, the null hypothesis of short-run symmetry is rejected, which implies the asymmetric influences of positive and negative changes in financial development on the unemployment rate. These results resonate well with Gatti et al. (2011) and Rendon (2001), who empirically demonstrate the negative link between financial development and unemployment rate. In the short-run, there is a significant inverse relation between economic growth and the unemployment rate, which supports Okun (1962), who demonstrates the negative relationship between economic growth and unemployment rate. These findings together indicate, while enhancing economic growth might not be a valid policy implication to reduce the unemployment rate in the long-run, it might be beneficial to resolve the issue of high unemployment levels in the short-run.

The impacts of the independent variables on the financial market development can be seen in Table 6. In the long-run, the only variable that has a significant impact on financial development is broad stock money. M2 is generally employed in the literature as a financial depth measure,

and our result suggests that an increase in the financial depth enhances the stock market development. Neither the unemployment rate nor the economic growth influence development in the financial sector in the long-run.

Table 6: Results of the NARDL estimation: ΔLNMC_t as a dependent variable

<i>Panel A: Estimated coefficients (Adj. R²= 0.2798)</i>				
Exp. Var.	Coef.	Robust Std. Error	t-stat.	Prob.
C	0.767	1.184	0.648	0.518
LNMC_{t-1}	-0.309	0.052	-5.993	0.000
UNEM_{t-1}^+	0.004	0.010	0.392	0.696
UNEM_{t-1}^-	-0.007	0.006	-1.297	0.197
GDP_{t-1}	-0.003	0.005	-0.668	0.506
LNM2_{t-1}	0.127	0.055	2.310	0.023
OPEN_{t-1}	1.027	1.093	0.940	0.349
DUNEM_t^+	-0.120	0.031	-3.842	0.000
DUNEM_{t-1}^+	-0.024	0.037	-0.656	0.513
DUNEM_{t-2}^+	-0.016	0.032	-0.497	0.620
DUNEM_{t-3}^+	-0.104	0.047	-2.219	0.028
DUNEM_t^-	0.105	0.040	2.605	0.010
DUNEM_{t-1}^-	0.033	0.037	0.911	0.364
DUNEM_{t-2}^-	0.127	0.050	2.530	0.013
DGDP_t	0.933	0.307	3.037	0.003
DGDP_{t-1}	-1.531	0.538	-2.846	0.005
DGDP_{t-2}	0.806	0.287	2.812	0.006
DOPEN_t	-0.836	1.794	-0.466	0.642
DOPEN_{t-1}	2.210	1.439	1.536	0.127
DLNM2_t	-0.037	0.123	-0.302	0.763
<i>Panel B: Long-Run Coefficients for the asymmetric parameters</i>				
UNEM^+	0.013		UNEM^-	-0.024

*Notes: Panel A demonstrates the error correction display of the NARDL model results, in which the dependent variable is ΔLNMC . UNEM, LNMC, GDP, OPEN, LNM2, and CPI indicate unemployment rate, logarithmic values of stock market capitalization, GDP index, openness of trade, logarithmic values of M2, and consumer price index, respectively. . Exp. Var. indicates the explanatory variables. Heteroskedasticity and autocorrelation robust standard errors and t-statistics, obtained via Newey-West (1987), are shown. The positive and negative partial sums are demonstrated with superscripts “+” and “-”, respectively. In panel B, the long-run coefficients related to positive and negative alterations of the corresponding variables are demonstrated, respectively. Superscripts ***, **, and * show significance of 1 percent, 5 percent and 10 percent, respectively.*

In the short-run, on the other hand, both positive and negative changes in the unemployment level influence financial development significantly, and these impacts are negative and positive, respectively. These effects are asymmetric as shown in Table 4, since we reject the null hypothesis of Wald test indicating symmetric impact. Moreover, economic growth increases financial development in the short-term. This finding suggests that growth improves financial development by facilitating the formation of more financial institutions, and Turkey shows demand-following characteristics in the short-run (Patrick, 1966).

5. Conclusion

This study empirically studied the link between financial development and unemployment by employing NARDL approach. Although the indirect relationship between these variables has been widely studied in the literature by employing the changes in FDI and income distribution, this paper participates in the literature by presenting the direct asymmetric relation between the development of financial sector and unemployment level in the long- and short-term. In order to prevent any biased results, economic growth is also included in the model.

The main findings of this study can be summarized as follows. First of all, our findings demonstrate that in the long-run, while negative changes in financial development do not have a significant influence on the unemployment level, the positive changes reduce the unemployment rate. In the short-term, positive and negative changes in financial development have a significant asymmetric negative and positive influence on the unemployment rate, respectively. Moreover, this relationship is bidirectional. Positive changes in the unemployment level reduce, and negative changes increase financial development in the short-run. Additionally, these effects are asymmetric. These results resonate well with Gatti et al. (2011) and Rendon (2001).

Our findings also indicate that economic growth does not have a long-term impact on the unemployment rate and financial development. However, an increase in economic growth reduces the unemployment rate and enhances financial development in the short-run.

The findings of this paper can be interpreted as in order to reduce or control the unemployment rate in the long-term, enhancing economic

growth might not be a valid policy. Instead, applying structural changes and improving development in the financial sector can be a more valid policy in managing the unemployment rate. Our results provide inputs, which may be employed by policymakers to reduce or control the unemployment rate.

References

- Ball, L., Leigh, D., & Loungani, P. 2013. *Okun's law: Fit at 50* (NBER Working Paper No. 18668). Retrived from <https://www.nber.org/papers/w18668.pdf>.
- Barışık, S., Çevik, E.İ., & Çevik, N.K. 2010. "Türkiye'de Okun yasası, asimetri ilişkisi ve istihdam yaratmayan büyüme: Markov-switching yaklaşımı." *MaliyeDergisi* 59:88-102.
- Beck, T., Levine, R., & Loayza, N. 2000. "Finance and the sources of growth." *Journal of Financial Economics* 58:261-300.
- Dickey, A. D., & Fuller, W. A. 1979. "Distribution of the estimators for autoregressive time series with a unit root." *Journal of the American Sttistical Association* 74:427-431.
- Friedman, M. 1977. "Nobel lecture: Inflation and unemployment." *Journal of Political Economy* 85:451-472.
- Gatti, D., Rault, C., & Vaubourg A. G. (2011). *Unemployment and finance: how do financial and labour market factors interact?* (CESIFO Working Paper No.2901). Retrived from https://ideas.repec.org/p/ces/ceswps/_2901.html.
- King, R.G., & Levine, R. 1993a. "Finance and growth: Schumpeter might be right." *Quarterly Journal of Economics* 108:717-38.
- King, R.G., & Levine, R. 1993b. "Finance, entrepreneurship, and growth: Theory and evidence." *Journal of Monetary Economics* 32:513-42.
- Kitov, I.O. 2011. "Okun's law revisited: Is there structural unemployment in developed countries?" *SSRN Electronic Journal* 1-11. Retrieved May 30, 2020, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1883003.
- Levine, R. 1991. "Stock market growth and tax policy." *Journal of Finance* 46:1445 1465.
- Levine, R., & Zervos, S. 1998. "Stock markets, banks, and economic growth." *The American Economic Review* 88:537-558.

- Lal, I., Muhammad, S.D., Jalil, M.A., & Hussain, A. 2010. "Test of Okun's law in some Asian countries cointegration approach." *European Journal of Scientific Research*, 40:73-80.
- McKinnon, R. 1973. *Money and capital in economic development*. Brookings Institution, Washington, DC, USA.
- Okun, A.M. 1962. "Potential GNP: Its measurement and significance." *Cowles Foundation Paper* 190:1-7.
- Patrick, H.T. 1966. "Financial development and economic growth in underdeveloped countries." *Economic Development and Cultural Change* 14:174-189.
- Pesaran, M.H., & Shin, Y. 1998. "An autoregressive distributed-lag modelling approach to cointegration analysis." *Economic Soc. Monogr* 31:371-413.
- Phillips, P.C.B., & Perron, P. 1988. "Testing for a unit root in time series regression." *Biometrika* 75:335-346.
- Rajan, R.G., & Zingales, L. 1998. "Financial dependence and growth." *American Economic Review* 88:559-586.
- Rendon, S. 2001. *Job creation under liquidity constraints: The Spanish case* (Banco de Espana Working Paper No. 0101). Retrived from <https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSerias/DocumentosTrabajo/01/Fic/dt0101e.pdf>.
- Schumpeter, J.A. 1912. *Theorie der wirtschaftlichen Entwicklung (The Theory of economic development)*. Leipzig: Dunker and Humblot. Translated by RED- VERS OPIE. Oxford University Press.
- Shaw, E. S. 1973. *Financial deepening in economic development*. Oxford University Press, New York.
- Shin, Y., Yu, B., & Greenwood-Nimmo, M. 2014. *Modeling asymmetric cointegration and dynamic multipliers in a nonlinear ARDL framework*. R. Sickles, & W. Horrace (Ed.) In: *Festschrift in Honor of Peter Schmidt* (ss. 281-314). New York: Springer.
- Sönger, L., & Stiassny, A. 2002. "An analysis on the structural stability of Okun's law: A cross-country study." *Applied Economics* 14:1775-1787.
- Umut, G. 2011. "2001 sonrasında Türkiye ekonomisinde büyüme ve istihdam: Türkiye'deki işsizliğin dinamikleri." *İnsan ve Toplum Dergisi* 1:111-133.
- Yartey, C.A. 2008. *The determinants of stock market development in emerging economies: Is South Africa different?* (IMF Working Paper

No. WP/08/32). Retrived from
<https://www.imf.org/en/Publications/WP/Issues/2016/12/31/The-Determinants-of-Stock-Market-Development-in-Emerging-Economies-Is-South-Africa-Different-21646>

CHAPTER VI

THE IMPACT OF COVID-19 ON HEALTH SECTOR STOCK RETURNS

Assist. Prof. Dr. Erdem ÖNCÜ

University of Mediterranean Karpasia, Lefkoşa, Turkish Republic of
Northern Cyprus e-mail: erdem.oncu@akun.edu.tr,
Orcid No: 0000-0002-3506-5803

1. Introduction

The first case of the SARS virus, which was first seen in China and most of Asia and then effective in North America and Europe, was seen in 2002. It is reported that SARS causes more than 800 deaths with a general mortality rate approaching 10% in 8,500 cases, and has virulence characteristics as an important human pathogen with a mortality rate approaching 50% in people over 65 (Cameron et al., 2012). Brown ve Smith (2008) found that the tourism sectors of Australia, Canada and Asian countries are significantly affected by the spread of the SARS virus. Studies on Taiwan and Hong Kong revealed that both the stock market and the tourism industry are significantly affected by the SARS virus (Pine and Mckercher, 2004; Chien and Law, 2003; Yang et al., 2010).

Table 1: Recent History of Pandemics

Pandemic	Time Period	Death (Estimated)	Location
Asian flu (H2N2)	1957-1958	1.100.000	World
Hong Kong flu (H3N2)	1968	1.000.000	World
Avian flu (H1N1)	2009	151.700 - 575.400	World
Severe Acute Respiratory Syndrome (SARS)	2002-2003	775	Hong Kong, China, Canada, Taiwan
Middle East Respiratory Syndrome (MERS)	2012	%35 (Mortality Rate)	World

Source: Baldwin and Weder di Mauro, 2020: 5-7.

COVID-19 outbreak also has a global impact like other outbreaks (H2N2, H3N2, H1N1, SARS, MERS). The coronavirus, which first appeared in Wuhan, China, has spread almost all over the world. The COVID-19 virus has affected the whole world in less than 2 months. The World Health Organization has declared the corona virus as a pandemic as of March 11. Spreading more than the SARS virus that emerged in 2012, COVID-19 has a devastating economic and cultural impact. The Asian Development Bank (ADB) announced in its report titled "Asian Development Outlook 2020" that the cost of the COVID-19 epidemic to the world economy will reach the level of 2.0-4.1 trillion dollars according to the rate of spread in Europe, the USA and other countries with large economies (Dhar, 2021). He stated that the cost also means a 2.3% -4.8% shrinkage of the Gross Domestic Product at the global level (GDP). In Asian countries, the economy is expected to contract by 2.2% until the end of the year. If the virus loses its effect by the end of this year, Asian countries will grow by 6.2% in 2021. Central banks have quickly begun to take measures to address the devastating impact of the virus. Central banks of countries, especially the Federal Reserve (FED), took monetary expansion decisions, just like in 2008 (Betz, 2021). With the changes in interest rates and loan regulations, the FED injected 6 trillion dollars into the market. In the statement made in the first week of April, the World Bank stated that they approved emergency support to developing countries within the scope of combating COVID-19. In the statement made, it was also stated that it was prepared for a support of 160 billion dollars within 15 months in order to support the measures to be taken to combat the global epidemic. The situation is similar for Europe. The European economy is expected to contract by 8% -15% by the end of the year. The European Central Bank announced that it will purchase bonds at the level of 600 billion Euros within the scope of combating COVID-19.

Health and economics are part of an inseparable whole for social welfare maximization. The risks posed by the pandemic on financial markets, as well as the health and social impact, are one of the most popular agenda items today. In the past studies conducted with event analysis, abnormal returns have been detected in the markets for the SARS virus period. Researchers who have recently investigated the COVID-19 impact have also reached abnormal return results. In this study, unlike other studies, the returns of companies with drug or vaccine projects against COVID-19 will be examined.

2. Literature

In this article, we are interested in the impact of COVID-19 on the stocks of biotech companies. In the literature review, the effects of viruses,

disasters and other negative events on stocks were examined. The effect of the SARS virus, which emerged in 2003, has been investigated in academic studies. On the day of the SARS outbreak and beyond, Taiwanese hotel stocks showed a significantly cumulative average abnormal return, indicating that the SARS outbreak had a significant negative impact on hotel stock performance (Chen et al., 2007). Before the SARS virus, a significant positive cumulative abnormal return was seen in biotech stocks, while negative cumulative abnormal returns were seen in the post-virus days (Yang et al., 2010).

In another study, pharmaceutical firms showed different abnormal return results on a per day basis. The window period of 1 day before gives positive results, while the results after 6 days indicate the presence of negative cumulative abnormal returns (Wang et al., 2013). In addition, abnormal returns to the financial ratios of biotech companies are analyzed. The results show that a higher R&D spending rate for companies has a negative impact as a result of an infectious disease outbreak.

Natural or man-made disasters from the past to the present have caused financial movements. The nuclear accident at Three Mile Island in 1979 resulted in abnormal returns on the stocks of companies providing electricity services for 2 months (Hill and Schneeweis, 1983). It is observed that companies whose electricity generation depends on nuclear power are affected more than others in terms of abnormal returns. Natural disasters such as earthquakes, typhoons and large-scale fires create fluctuations in stocks. In this context, abnormal returns have been observed in studies on natural disasters (Lamb, 1995; Kleidt et al., 2009; Bolak and Sürer, 2008; Song et al., 2012).

Terrorist attacks are one of the events that quickly mobilize financial markets. Multiple studies have found that abnormal returns occur in the markets with terrorist attacks (Broun and Derwall, 2009; Ramiah et al., 2018). Terrorist attacks have a more devastating impact than earthquakes and disasters such as typhoons (Kleidt et al., 2009; Broun and Derwall, 2009; Cummins and Lewis, 2003).

In addition to the aforementioned issues, new information about the sector may also generate abnormal returns. Yang and He (2018) found that regulations published on financial markets between 2008 and 2015 generated positive abnormal returns. In another study, depending on the nature of the news, the effect can be positive or negative abnormal return (Gogstad et al., 2017). In this context, it is determined that newly released regulatory information causes negative abnormal returns in some companies and positive abnormal returns in others (Law et al., 2016).

New status information that arises is not necessarily regulatory information. Political elections also generate abnormal returns. After Trump was elected president of the United States in 2016, abnormal returns have been observed, depending on the sectors (Nandy and Susan, 2018; Pham et al., 2018).

The impact of the COVID-19 pandemic on financial markets has become one of today's popular research topics. COVID-19 pandemic has a negative impact on financial markets. In examining the impact of the number of cases, the weekly number of cases increases, the returns to be obtained from the financial markets decrease (Khan et al. 2020). Also, Harjoto et al., (2020) finds that COVID-19 power of influence on financial market is higher in developing countries than in developed countries. In another study on the subject clarify that emerging financial markets in Asia have encountered more destructive effects than those in Europe (Topcu & Gulal, 2020). In addition, large firms are affected less negatively than small firms (Yan, 2020). When examined on a sectoral basis, during this period, while losses are experienced in many sectors, abnormal positive returns are observed in information technologies and healthcare sectors (He et al., 2020; Thorbecke, 2020; Mazur et al., 2020; Huo and Qiu, 2020).

3. Firms Trying to Develop COVID-19 Drugs or Vaccines

Abbott Labs (NYSE: ABT) introduced the first diagnostic test for COVID-19 on March 18, after receiving emergency use authorization from the FDA. The test provides results in just 15 minutes without any instrumentation, using lateral flow technology proven in clinical study with a proven sensitivity of 97.1% and specificity of 98.5% (Abbott, 2020a). In addition, the company has developed the telephone application called BinaxNOW in order for individuals or organizations to reach test results quickly and reliably. In the company's statement for the phone application, it stated that it aims to reach 50 million test capacities per month in early October 2020 according to its plans (Abbott, 2020b).

The company Gilead Sciences (NASDAQ: GILD) owns Remdesivir, a nucleotide analog prodrug that inhibits viral RNA polymerases. This drug, used in the treatment of COVID-19, reduces the recovery time of patients (Beigel et al., 2020; Grein et al., 2020).

Novavax, Inc. (NASDAQ: NVAX) announced on February 26, 2020 that it has produced a large number of nanoparticle vaccine candidates to protect against the coronavirus disease COVID-19 (Novavax, 2020). Vaccine candidates have been developed using recombinant protein nanoparticle technology.

Emergent Biosolutions Inc. (NYSE: EBS), the company founded in 1998, is engaged in the treatment of COVID-19 and vaccine development. To develop the vaccine, EBS has signed partnership agreements with Novavax and Johnson & Johnson. For the drug, it continues to work on human blood and horse blood (Banta, 2020).

Pfizer (PFE) announced on March 13, 2020 that they started to develop vaccine with Biontech company (Pfizer, 2020). Pfizer and Biontech were previously involved in vaccine development studies for influenza virus.

Moderna (MRNA) announced on January 13, 2020 that the vaccine coded m-rna 1273 was developed on the COVID-19 virus (Moderna, 2020). The permission to start the 1 phase studies of the vaccine was given by the FDA on March 4, 2020.

Johnson & Johnson (NYSE: JNJ) announced that the company, which has been working with healthcare institutions and companies since the first days of the epidemic, will invest \$ 1 billion in the COVID-19 vaccine on March 30, 2020. In addition, the company does not only depend on its own investments, but also makes partnership agreements with other important companies in the sector (JNJ, 2020).

4. Methodology

First of all, in this study, it is examined whether the companies that work with COVID-19 counter medication or vaccines during the pandemic period have a different return than normal. Multiple factors should be considered in order to analyze the case studies in a sound manner. The Fama and French (1993) model, one of the capital asset assessment methods used in many case studies in the literature, was chosen for the study. In this model, 2 new factors have been added to the capital assets evaluation model. In the Fama and French (1993) model,

$$R_{it} = \beta_0 + \beta_M M_t + \beta_{SMB} S M B_t + \beta_{HML} H M L_t + \varepsilon_t \quad (1)$$

Rit (Ri- Rf) represents the determined return for a firm, Mt (Rm- Rf) the return of the market portfolio, SMBt size premium, HMLt value premium, et represents the excess return on day t.

Abnormal return is found by subtracting the expected return from the actual return.

$$A R_{it} = R_{it} - E(R_i) \quad (2)$$

A statistically significant difference in cumulative abnormal returns indicates that an abnormal return has occurred in the relevant stock.

$$C A R_i(t_1, t_2) = \sum_{t=t_1}^{t_2} A R_{it} \quad (3)$$

AAR (average abnormal returns) is calculated if the effects of more than one firm, not one, are to be monitored.

$$A A R_t = \frac{1}{N} \sum_{i=1}^N A R_{it} \quad (4)$$

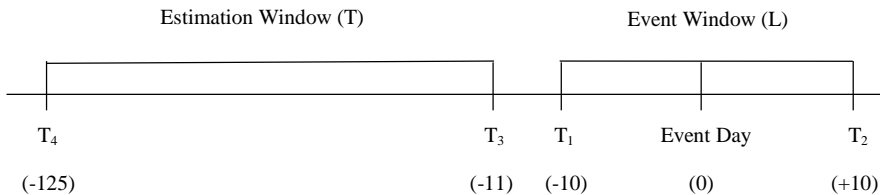
Finally, CAAR (cumulative average abnormal returns) used to monitor the average effect over multiple days is given below.

Patell (1976) test suppose that returns are independent and test prevents large variance units effects on outcome. The BMP test developed over the Patell test includes both the information in the prediction period and the event period into the analysis. Cross-section correlations of abnormal returns in Patell and BMP tests significantly affect the output. In order to solve this problem, Kolari and Pynnonen (2010) arranged cross section correlations deriving from Patell (1976) test.

5. Data

Producer companies in the health sector are complex. Companies that work on vaccines or drugs against the COVID-19virus and share their information with the media were used for this study. According to the statement made on March 11, 2020, after the announcement that 118 thousand cases were encountered in 114 countries and 4 thousand 291 people died due to the Corona virus epidemic, the World Health Organization announced that COVID-19 was included in the pandemic diseases group (WHO, 2020). The data set of the study was determined according to the date of the pandemic, and the event periods were determined as (-1,1), (-2,2), (-3,3), (-5,5) and (-10,10).

Figure 1: Estimation Period



To test whether COVID-19 impact health sector stock performance, event study analysis is applied to examine the relationship between news of COVID-19 drug or vaccine and the performance of health sector stocks.

Table 2: 11 March 2020 Cumulative Average Abnormal Returns

SECURITY	CAAR [-1,1]	CAAR [-3,3]	CAAR [-5,5]	CAAR [-10,10]
ABT	0.0615*	0.1442*	0.2403*	0.1055*
	(3.900)	(3.984)	(4.075)	(3.024)
GILD	0.0108	0.0162	0.1469*	0.0649
	(0.351)	(0.380)	(2.784)	(1.041)
NVAX	-0,0677	-1,087*	-0,3361	0.3986
	(0.377)	(3.885)	(1.040)	(0.953)
EBS	0.2418*	0.2992*	0.3450*	0.201**
	(4.401)	(4.408)	(4.486)	(2.154)
JNS	-0,0095	0.0561**	0.1491*	-0,1106*
	(0.532)	(2.033)	(4.145)	(2.615)
MRNA	-0,101	-0,303**	-0,3417**	-0,3116
	(1.104)	(2.360)	(2.155)	(1.590)
PFE	-0,0523	0,0041	0,095*	0,0409
	(2.800)	(0.151)	(2.790)	(0.894)
CAAR Portfolio	0,0119	-0,1138	0,04***	0,06
	(0.582)	(0.691)	(1.875)	(0.698)

Note:*, **, and *** show significance at the 1%, 5%, and 10% levels, respectively.

In respect of Table 2, positive abnormal returns are seen in the event windows (-1, 1), (-5, 5) and (-10, 10) for the portfolio. However, statistically significant abnormal return is observed only in the (-5, 5) event window. EBS and ABT stocks have significant positive abnormal returns across all event windows. Significant negative abnormal returns are observed in JNS and MRNA stocks in the event window (-3, 3).

Table 3: 13 April 2020 Cumulative Average Abnormal Returns

SECURITY	CAAR [-1,1]	CAAR [-3,3]	CAAR [-5,5]	CAAR [-10,10]
ABT	0.026	0.0942*	0.1061*	0.1656*
	(1.250)	(3.011)	(2.690)	(3.094)
GILD	-0,0003	-0,0813	-0,0455	-0,0263
	(0.009)	(1.415)	(0.621)	(0.264)
NVAX	-0,0844	-0,0831	0.2513	0.0292
	(0.447)	(0.288)	(0.680)	(0.061)
EBS	-0,0211	-0,0452	0.0521	0.2088
	(0.384)	(0.540)	(0.492)	(1.527)
JNS	-0,0085	0.012	0.032	0.1387**
	(0.371)	(0.319)	(0.740)	(2.318)
MRNA	0,0707	0,1232	0,4426**	0,5315***
	(0.690)	(0.782)	(2.241)	(1.928)
PFE	0,0232	-0,0172	0,007	0,1314**
	(0.999)	(0.486)	(0.018)	(2.312)
CAAR Portfolio	0,0088	0,0022	0,12	0,1684**
	(0.605)	(0.251)	(1.388)	(2.452)

Note: *, **, and *** show significance at the 1%, 5%, and 10% levels, respectively.

According to Table 3, positive abnormal returns are observed in all event windows for the portfolio. Significant positive abnormal return is seen only in the (-10, 10) event window. While the significance in terms of stocks is mostly seen in ABT stocks, the most significant cumulative abnormal average returns are seen in the (-10, 10) event window.

Figure 2: Comparison of Cumulative Average Abnormal Returns



Comparing cumulative average abnormal returns in the event window (-10, 10), there is a positive change in most stocks and portfolio. Negative change is observed only in GILF stocks.

Conclusion

COVID-19 virus, which was first detected to appear in China in late 2019, became effective globally in a short time and affected large segments. Both its rapid spreading power and its global effectiveness caused the virus not only to health problems, but also to some economic problems. This epidemic, which emerged unexpectedly, differs from previous global economic crises due to the breadth of measures taken and its direct relevance to health.

Regardless of their reasons, crises disrupt macroeconomic balances and negatively affect capital markets. In particular, many studies have been conducted on the factors affecting stock prices. Having information about stock prices is of interest to both scientific researchers and investors.

Abnormal returns were analyzed using event analysis during the pandemic to investigate whether the impact of COVID-19 on biotech stocks had significant effects. The results show that stocks have positive returns based on cumulative and abnormal average return findings. The devastating effect of the COVID-19 epidemic on the financial sector is observed in the literature. While investors avoid investing in many industries, they still see the healthcare industry profitable. In parallel with this, it has been observed that firms in the health sector have positive abnormal returns in studies (He et al., 2020; Mazur et al., 2020; Huo & Qiu, 2020). In this context, the findings of this study are in line with the literature. Every crisis creates new opportunities, regardless of its negative aspects. For example, the Black Death of the middle ages affected social and economic life. The Black Death has changed the role of the working

class, leading to innovations and productivity, especially in the agricultural sector, due to the pandemic (Bell and Lewis, 2004). COVID-19 pandemic also reveals social and economic transformations such as Black Death. The COVID-19 pandemic has changed living and working conditions, causing income inequality and capital movements (Bonacini et al., 2021). Investors direct their investments towards the profitable sectors of the period. With this crisis, companies in the health sector increased their returns by taking advantage of the pandemic.

References

- Bell, C. & Lewis, M. (2004). The economic implications of epidemics old and new. *World Econ*, 5(4), 137-174.
- Benfield, T., Fätkenheuer, G., Kortepeter, M. G., Atmar, R. L., Creech, C. B., Lundgren, J., ... & Lane, H. C. (2020). Remdesivir for the treatment of COVID-19—Final report. *N. Engl. J. Med*, 10.
- Betz, F. (2021). In a Global Pandemic, Modeling the Central Bank Functions. *Modern Economy*, 12(3), 623-658.
- Bolak, M., & Süer, Ö. (2008). The effect of Marmara earthquake on financial institutions. *Journal of Doguş University*, 9(2), 135-145.
- Bonacini, L., Gallo, G., & Scicchitano, S. (2021). Working from home and income inequality: risks of a ‘new normal’ with COVID-19. *Journal of population economics*, 34(1), 303-360.
- Cameron, M. J., Kelvin, A. A., Leon, A. J., Cameron, C. M., Ran, L., Xu, L., ... & Kelvin, D. J. (2012). Lack of innate interferon responses during SARS coronavirus infection in a vaccination and reinfection ferret model. *PLoS one*, 7(9), e45842.
- Chen, M. H., Jang, S. S., & Kim, W. G. (2007). The impact of the SARS outbreak on Taiwanese hotel stock performance: an event-study approach. *International Journal of Hospitality Management*, 26(1), 200-212.
- Chien, G.C.L., Law, R., 2003. The impact of the severe acute respiratory syndrome on hotels: a case study of Hong Kong. *International Journal of Hospitality Management*, 22, 327–332.
- Dhar, U. (2021). Asian Development Bank (ADB), Asian Development Outlook 2020: What Drives Innovation in Asia?. *Journal of Asian Economic Integration*, 3(1), 98-100.
- Fama, E. F., & French, K. R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of financial economics*, 33(1), 3-56.

- Ferstl, R., Utz, S., & Wimmer, M. (2012). The effect of the Japan 2011 disaster on nuclear and alternative energy stocks worldwide: An event study. *Business Research*, 5(1), 25-41.
- Gogstad, M., Kutan, A. M., & Muradoglu, Y. G. (2018). Do international institutions affect financial markets?: evidence from the Greek Sovereign Debt Crisis. *The European Journal of Finance*, 24(7-8), 584-605.
- Grein, J., Ohmagari, N., Shin, D., Diaz, G., Asperges, E., Castagna, A., ... & Flanigan, T. (2020). Compassionate use of remdesivir for patients with severe COVID-19. *New England Journal of Medicine*, 382(24), 2327-2336.
- Harjoto, M. A., Rossi, F., & Paglia, J. K. (2020). COVID-19: Stock market reactions to the shock and the stimulus. *Applied Economics Letters*, 1-7.
- He, P., Sun, Y., Zhang, Y., & Li, T. (2020). COVID-19's impact on stock prices across different sectors—An event study based on the Chinese stock market. *Emerging Markets Finance and Trade*, 56(10), 2198-2212.
- Hill, J., & Schneeweis, T. (1983). The effect of Three Mile Island on electric utility stock prices: A note. *The Journal of Finance*, 38(4), 1285-1292.
- Huo, X., & Qiu, Z. (2020). How does China's stock market react to the announcement of the COVID-19 pandemic lockdown?. *Economic and Political Studies*, 8(4), 436-461.
- Keogh-Brown, M. R., & Smith, R. D. (2008). The economic impact of SARS: how does the reality match the predictions?. *Health policy*, 88(1), 110-120.
- Khan, K., ZHAO, H., Zhang, H., Yang, H., Shah, M. H., & Jahanger, A. (2020). The impact of COVID-19 pandemic on stock markets: An empirical analysis of world major stock indices. *The Journal of Asian Finance, Economics, and Business*, 7(7), 463-474.
- Kleidt, B., Schiereck, D., & Sigl-Grueb, C. (2009). Rationality at the eve of destruction: Insurance stocks and huge catastrophic events. *Journal of Business Valuation and Economic Loss Analysis*, 4(2).
- Kolari, J. W., & Pynnönen, S. (2010). Event study testing with cross-sectional correlation of abnormal returns. *The Review of financial studies*, 23(11), 3996-4025.

- Lamb, R. P. (1995). An exposure-based analysis of property-liability insurer stock values around Hurricane Andrew. *Journal of Risk and Insurance*, 111-123.
- Law, C., Cornelsen, L., Adams, J., Penney, T., Rutter, H., White, M., & Smith, R. (2020). An analysis of the stock market reaction to the announcements of the UK Soft Drinks Industry Levy. *Economics & Human Biology*, 38, 100834.
- Mazur, M., Dang, M., & Vega, M. (2021). COVID-19 and the march 2020 stock market crash. Evidence from S&P1500. *Finance Research Letters*, 38, 101690.
- Nandy, S., & Sussan, F. (2019). Did the US Presidential Election in 2016 have a Short-Term Effect on the Financial Returns of American Depository Receipts from Russia?. *Review of Integrative Business and Economics Research*, 8(3), 78.
- Patell, J. M. (1976). Corporate forecasts of earnings per share and stock price behavior: Empirical test. *Journal of Accounting Research*, 246-276.
- Pham, H. N. A., Ramiah, V., Moosa, N., Huynh, T., & Pham, N. (2018). The financial effects of Trumpism. *Economic Modelling*, 74, 264-274.
- Pine, P., McKercher, B., 2004. The impact of SARS on Hong Kong's tourism industry. *International Journal of Contemporary Hospitality Management*, 16 (2), 139–143.
- Song, L., Wang, J., Yao, S., & Chen, J. (2012). Market reactions and corporate philanthropy: A case study of the Wenchuan earthquake in China. *Journal of Contemporary China*, 21(74), 299-315.
- Thorbecke, W. (2020). The Impact of the COVID-19 Pandemic on the US Economy: Evidence from the Stock Market. *Journal of Risk and Financial Management*, 13(10), 233.
- Topcu, M., & Gulal, O. S. (2020). The impact of COVID-19 on emerging stock markets. *Finance Research Letters*, 36, 101691.
- Wang, Y. H., Yang, F. J., & Chen, L. J. (2013). An investor's perspective on infectious diseases and their influence on market behavior. *Journal of Business Economics and Management*, 14(sup1), S112-S127.
- Yang, F., Wang, Y., & Chen, L. (2010). Information value of the infectious diseases outbreak on biotechnology. *Journal of Medicinal Plants Research*, 4(20), 2103-2107.

Yang, M., & He, Y. (2019). How does the stock market react to financial innovation regulations?. *Finance Research Letters*, 30, 259-265.

Internet References

Abbot (2020a). Retrieved from <https://abbott.mediaroom.com/2020-08-26-Abbotts-Fast-5-15-Minute-Easy-to-Use-COVID-19-Antigen-Test-Receives-FDA-Emergency-Use-Authorization-Mobile-App-Displays-Test-Results-to-Help-Our-Return-to-Daily-Life-Ramping-Production-to-50-Million-Tests-a-Month>

Abbot (2020b). Retrieved from <https://www.abbott.com/BinaxNOW-Test-NAVICA-App.html#/>

Banta, M. (2020). A vaccine for COVID-19 is crucial for the economy. A company founded in Lansing is helping make one. *Lansing State Journal*. Retrieved from <https://eu.lansingstatejournal.com/>

JNJ(2020). Retrieved from <https://www.jnj.com/coronavirus/>

Moderna (2020). Retrieved from <https://www.modernatx.com/>

Novavax (2020). Retrieved from <https://ir.novavax.com/news-releases/news-release-details/novavaxAdvances-development-novel-COVID-19-vaccine>

Pfizer (2020). Retrieved from <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-outlines-five-point-plan-battle-COVID-19>

CHAPTER VII

PERSISTENCE OF SHOCKS TO ECOLOGICAL FOOTPRINT OF THE OECD COUNTRIES¹

Dr. Lecturer Esra CANPOLAT GÖKÇE

Inonu University, esra.canpolat@inonu.edu.tr

Orcid No:0000-0003-1447-7262

1. Introduction

In the primeval era, human beings used to see themselves as a part of nature. People approached nature with the aim of understanding it instead of ruling it, and understanding nature was seen as identical to understanding oneself because the two were perceived to be related. However, with the transition to a scientific society in the 17th century, the direction of the relationship between nature and human changed. In the modern era, humans, who used to see themselves as a part of nature, have adopted a way of thinking that places them at the center and separates them from nature. Therefore, in the modern period, human beings have become alienated from nature. They have begun to see themselves as a force that can rule nature instead of seeing themselves as a part of it. Humankind has become stronger with knowledge. When the famous thinker Francis Bacon, who is widely considered one of the pioneers of modern science, said “knowledge is power” he meant that human beings needed to start determining their stance towards nature (Tarnas, 2010: 293). Descartes, a 17th-century thinker, paved the way for increasing the distance between nature and humankind.

Bacon’s and Descartes’ views form the basis of the modern era’s thought, which places human beings at the center and suggests that measure of all things human. However, in learning how to rule nature in the modern era using their knowledge, human beings have alienated themselves from nature, and this has prevented them from understanding the components of nature. They have started to damage nature’s structure and ignore the possible consequences of this damage in exchange for making their lives easier and increasing their welfare. The world positively perceives progress because humankind enjoys a more prosperous life thanks to developments in economics, technology, and science. However,

¹ This study is supported by the Scientific Research Projects Unit of Inonu University within the scope of the project numbered 2018-3088.

this development has also brought environmental damage. Natural resources are being depleted to achieve increased production, higher profits, and more progress. Nature is not even being provided the opportunity to recover itself. Increased production and use of resources are leading to increased pollution.

The rapid development of economies has increased international trade, and markets have started to become a whole. As a result, environmental damage caused by economic activities in a region is not limited to that region but rather has a global impact. With the rise of globalization in the 19th century, economic, political, and cultural associations have increased and environmental problems have become widespread.

Environmental problems, which have become significantly more visible, have increased people's interest in the environment and nature. Nature is not a mechanical structure, as Descartes indicated (Tarnas, 2010:298). It has an organic structure, and nature, which has been ignored and dominated to increase profitability, has started to fight back. Global warming, desertification, drought, famine, and many other disasters are nature's warnings to people. They are evidence of a living nature's reactions. They are signals indicating that nature cannot keep renewing itself in the face of increasing human activities. We are a part of nature, and the fact that nature cannot renew itself means that human beings cannot sustain themselves either. To overcome this existential problem, many indicators related to the environment have begun to be carefully examined today. In this context, one of the widely discussed environmental indicators is the ecological footprint.

The ecological footprint is an important indicator of sustainability. Sustainable development has economic, social, and environmental aspects, all of which are strictly related to each other. A country's development cannot be sustainable if any of these aspects fail. Our aim should be to transfer a healthy nature to future generations with the help of sustainable environmental policies. In this context, the ecological footprint is an important indicator of the extent of environmental sustainability. William Rees (1992) first mentioned the concept of the ecological footprint. Later, Wackernagal (1994) and Rees and Wackernagal (1996) provided details of ecological footprint calculation methods. According to the Global Footprint Network (2018), ecological footprint is the only measure that reflects how much nature we have and how much nature we use. Carbon dioxide (CO₂) has often been used as an important indicator of environmental pollution in studies examining the relationship between environmental and economic aspects of sustainable development. One of the reasons for using this indicator frequently is that data related to it can

be observed for long periods. However, although the CO₂ variable reflects the rate of air pollution caused by industrial investments, it is insufficient in reflect the capacity of available environmental areas and nature's rate of renewal. Therefore, in this study, the stochastic properties of the ecological footprint variable, which environmentalists accept as an important environmental indicator, is examined. Examining the stochastic features of the ecological footprint series is important for predicting whether the effects of policies applied by countries, such as carbon tax, clean energy subsidies, and proper land use law, will have permanent effects. Nonstationary indicators show that the effects of the policies to be implemented are permanent (Solarin and Bello, 2018).

The stationarity feature of the ecological footprint series is analyzed using panel Seemingly Unrelated Fourier Augmented Dickey Fuller (SURFADF) unit root test, a new unit root test that Chang et al. (2012) proposed. Panel SURFADF unit root test is used because of its advantages. It takes into account horizontal cross-sectional dependence (CD) and structural changes that occur in the series, including smooth breaks, as well as provides information for the units separately. The rest of this study is structured as follows: A literature review is included in section 2. The third section presents the econometric methods used in this study, and the fourth section presents the analysis results and the interpretation of the results. Finally, section five provides the conclusion. The results of the study and policy recommendations are presented in this section.

2. Literature review

The number of studies analyzing the time series characteristics of environmental indicators have been rapidly increasing. The course of environmental indicators over time is a guide for researchers and policy makers looking for solutions to environmental problems. Examining the unit root process, which is one of the time series features of environmental indicators, is highly important for several reasons. First, numerous econometric techniques used in analyzing the relationship between environmental indicators and economic growth from the economic perspective require the stationarity assumption. For this reason, analysis of environmental indicators' stationarity properties is frequently included in applied environmental economics studies. CO₂ emissions are frequently being used as environmental indicators when investigating the relationship between economic growth and environmental indicators (Lee and Lee, 2009; Lean and Smyth, 2010; Kasman and Duman, 2015; Wang et al., 2018). This is mostly because the CO₂ variable is one of the most important variables causing global warming, and long-term data for the CO₂ variable are accessible. (Hossain, 2012; Bella et al., 2014; Lee et al.,

2008; Yavuz and Yılancı, 2013; Chen et al., 2019). Another reason for applying stationarity tests to environmental indicators is to determine whether the effects of shocks applied to environmental indicators are permanent or temporary. Because permanent shocks suggest that the effects of the policies to be implemented are long-term and permanent. (Heil and Selden, 1999; Christidou et al., 2013; Tiwari et al., 2016).

Recently, in addition to the CO₂ variable, the ecological footprint indicator has been used as an important environmental indicator in empirical analyses. This is because the ecological footprint indicator is a variable that contains the CO₂ component on the one hand and that, on the other hand, provides information on both the capacity of usable environmental areas and nature's rate of renewal. This has led to an increase in the use of the ecological footprint variable in applied research (Wang et al., 2013; Al-Mulali et al., 2015; Ulucak and Apergis, 2018). The stationarity of ecological footprint data has only recently become a commonly analyzed subject, meaning the literature in this area is limited. Ulucak and Lin (2017) investigated the stationarity of the United States' annual ecological footprint series and its components over the 1961–2013 period using the Fourier unit root test. Their findings demonstrated that the United States' ecological footprint data is not stationary. Solarin and Bello (2018) analyzed the stationarity of ecological footprint series using data from 128 countries from 1961–2013. They used time series unit root tests to analyze the stationarity properties of series, including the nonlinear unit root test proposed by Kruse (2011), and for series that followed a linear course, they used the Narayan and Popp (2010) unit root test as well as a test consisting of a combination of both tests. They rejected the null hypothesis of nonstationarity for Algeria, the British Virgin Islands, and Gambia based on the results of the Kruse (2011) test, and based on the results of the Narayan and Popp (2010) test, they rejected the null hypothesis of ecological footprint series nonstationarity for 29 countries at 1%, 5%, and 10% significance levels. Additionally, according to the results of the unit root test, which is a combination of linear and nonlinear tests, they rejected the null hypothesis of nonstationary for 32 countries. Conversely, they found the ecological footprint series to be nonstationary for 96 countries.

Ozcan et al. (2019) analyzed the ecological footprint variable's stochastic properties for countries using four different categories (high, upper middle, low middle, low) over the 1961–2013 period. They used KSS unit root test with SPSM procedure. Their findings suggested that the ecological footprint series of all high-income countries were stationary, and that of half of the low-income and upper-middle-income countries were stationary.

Yılancı et al. (2019) tested the stochastic characteristics of the ecological footprints variable and its six components in 25 OECD countries over the 1961–2013 period using Bahmani and Oskooee's (2014) panel unit root test approach. The test considered sharp and soft breaks and found only the fishing footprint out of the six ecological footprint components to be nonstationary. Considering the recent developments in the literature, the ecological footprint variable is more inclusive than other variables as an indicator of environmental degradation. Therefore, to contribute to the literature, stochastic features of 26 OECD countries' ecological footprint indicators over the 1961–2016 period were analyzed using SURFADF panel unit root test that Chang et al. (2012) proposed. The test also has the capacity to precisely catch smooth breaks. The Fourier structure of the SURFADF panel unit root test enables precise estimation of structural breaks. This unit root test also allows separate interpretations of each country and horizontal cross-section dependency to be taken into consideration.

3. Data and methodology

In this section, the data set used in the analysis is introduced. Then, the panel FSURADF unit root test process that Chang et al. (2012) proposed is presented. The advantages of the unit root test are also discussed. Descriptive statistics on the countries' ecological footprints are provided on Table 1.

Table 1 Descriptive Statistics on Countries' Ecological Footprint Data

Countries	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Probability
SPAIN	4.153	0.951	0.171	2.329	1.324	0.516
SWEDEN	6.862	0.846	0.649	2.614	4.286	0.117
USA	0.671	0.833	-0.468	2.269	3.286	0.193
GERMANY	5.877	0.856	0.121	1.683	4.183	0.123
AUSTRALIA	8.055	0.794	0.153	3.220	0.330	0.848
AUSTRIA	5.260	0.804	-0.287	2.347	1.766	0.413
BELGIUM	7.088	0.569	-0.416	2.318	2.699	0.259
UNITED KINGDOM	5.914	0.624	-0.252	2.818	0.669	0.715
DENMARK	8.186	0.894	-0.773	2.687	5.817	0.055
FINLAND	6.725	0.656	-0.031	2.434	0.757	0.685
FRANCE	5.330	0.456	-0.142	2.706	0.389	0.823
SOUTH KOREA	0.078	0.049	-0.098	1.857	3.140	0.208
NETHERLANDS	5.840	0.865	-0.911	3.354	8.036	0.018
ISRAEL	4.514	0.983	-0.229	2.226	1.892	0.388

SWITZERLAND	5.507	0.526	-0.436	2.461	2.454	0.293
ITALY	4.608	0.865	-0.827	3.200	6.473	0.039
JAPAN	4.809	0.656	-1.278	4.332	19.379	0.001
CANADA	8.936	0.700	-0.017	2.230	1.386	0.501
LUXEMBOURG	13.574	1.492	0.015	3.190	0.087	0.957
MEXICAN	2.498	0.430	0.498	3.386	2.666	0.264
NORWAY	7.866	1.683	0.478	1.853	5.201	0.074
POLAND	4.925	0.680	0.557	1.836	6.061	0.048
PORTUGAL	3.585	0.829	0.009	1.413	5.874	0.053
CHILE	3.041	0.730	0.248	1.579	5.286	0.071
TURKEY	2.443	0.542	0.217	1.892	3.303	0.192
GREECE	4.228	1.207	-0.219	2.360	1.406	0.495

3.1. Data

Ecological footprint data of 26 OECD countries are used as the data set. The countries that make up the horizontal cross-section dimension of the panel are the United States, Germany, Austria, Belgium, United Kingdom, Denmark, France, Netherlands, Spain, Sweden, Switzerland, Italy, Canada, Luxembourg, Norway, Portugal, Turkey, Greece, Japan, Finland, Australia, Mexico, Poland, South Korea, Chile, Israel. The time interval covers the 1961–2016 period. The data set is accessed from the Global Footprint Network in terms of global hectares (gha) per person.

3.2. Methodology

The panel unit root test that Chang et al. (2012) proposed depends on the SURADF unit root test that Breuer et al. (2002) developed. This unit root test is used because of its various advantages. One of the advantages is that the test takes into account horizontal cross-section dependency. Second, every unit of the panel can be interpreted separately. Last, it takes into account smooth breaks.

The SURADF unit root test that Breuer et al. (2002) developed is an ADF-type unit root test, which is estimated using the system approach. This unit root test is a panel unit root test that does not take into account structural breaks while considering horizontal cross-section dependency. The model structure of the system for the SURADF unit root test is as follows:

$$\Delta y_{1,t} = \alpha_1(t) + (\rho_1 - 1)y_{1,t-1} + \sum_i^{\rho_i} \delta_i \Delta y_{1,t-i} + u_{1,t}$$

$$\Delta y_{2,t} = \alpha_2(t) + (\rho_2 - 1)y_{2,t-1} + \sum_i^{\rho_i} \delta_i \Delta y_{2,t-i} + u_{2,t}$$

$$\Delta y_{N,t} = \alpha_N(t) + (\rho_N - 1)y_{N,t-1} + \sum_i^{\rho_i} \delta_i \Delta y_{N,t-i} + u_{N,t}. \quad (1)$$

In model structure (1), $i = 1, 2, \dots, N$ indicate units and $t = 1, 2, \dots, T$ indicate time. ρ_i is the autoregressive coefficient for the i unit. The system of equation (1) is estimated by the SUR approach. $\alpha_i(t)$ is the deterministic component of the model. The structure of this deterministic component can be modeled in different ways. However, situations where the structure and location of the deterministic component are unknown are frequently encountered. In such cases, incorrect configuration of the deterministic component may result in incorrect results during the unit root test process. To overcome this problem, Becker et al. (2004), Becker et al. (2006), Enders and Lee (2004) suggested using the Fourier function to define the deterministic component (Christopoulos and Ledesma, 2010). With the Fourier structure, it is not necessary to know the structure and position of the deterministic component in advance. The $\alpha_i(t)$ component is defined as follows using the Fourier function:

$$\alpha_i(t) = \alpha_0 + \sum_{k=1}^n \alpha_k \sin(2\pi kt/T) + \sum_{k=1}^n b_k \cos\left(\frac{2\pi kt}{T}\right); n \leq T/2. \quad (2)$$

Here, n represents the cumulative frequency number, k represents the appropriate frequency number, t is the trend term, T is the sample size, and $\pi = 3.1416$. Using a large n causes problems such as degree of freedom and overfitting. In addition, keeping n small allows for gradual changes in the deterministic component. This is why Ludlow and Enders (2000) and Enders and Lee (2012) suggested that $n = 1$. The representation of the deterministic component for $n = 1$ is as follows:

$$\alpha_i(t) = \alpha_0 + \alpha_{1i} \sin(2\pi kt/T) + b_{1i} \cos\left(\frac{2\pi kt}{T}\right). \quad (3)$$

The deterministic component obtained by equation (3) is placed in the system of equation (1). A single frequency SURFADF structure is obtained in this way. Chang et al. (2012) showed the model structure of the SURFADF unit root test, which can take into account structural breaks thanks to the Fourier function:

$$\begin{aligned} \Delta y_{1,t} &= \mu_1 + \beta_1 t + (\rho_1 - 1)y_{1,t-1} + \sum_i^{\rho_i} \delta_i \Delta y_{1,t-i} + \alpha_{11} \sin\left(\frac{2\pi k_1 t}{T}\right) + b_{11} \cos\left(\frac{2\pi k_1 t}{T}\right) + u_{1,t} \\ \Delta y_{2,t} &= \mu_2 + \beta_2 t + (\rho_2 - 1)y_{2,t-1} + \sum_i^{\rho_i} \delta_i \Delta y_{2,t-i} + \alpha_{12} \sin\left(\frac{2\pi k_2 t}{T}\right) + b_{12} \cos\left(\frac{2\pi k_2 t}{T}\right) + u_{2,t} \end{aligned}$$

$$\Delta y_{N,t} = \mu_N + \beta_N t + (\rho_N - 1)y_{N,t-1} + \sum_i^{\rho_i} \delta_i \Delta y_{N,t-i} + \alpha_{1N} \sin\left(\frac{2\pi k_N t}{T}\right) + b_{1N} \cos\left(\frac{2\pi k_N t}{T}\right) + u_{N,t} \quad (4)$$

Model 4 is the SURFADF structure created by Chang (2012). Breuer (2001) argued that the same delay length of SURADF equations would result in biased test statistics. Therefore, appropriate delay lengths were determined using the approach proposed by Perron (1989). The appropriate frequency number k is determined as the value that gives the minimum squared residuals, and the model is estimated for the appropriate delay and frequency number. ADF equations are created for the residuals obtained from Model 4, and the without unit root these residuals is tested using the ADF unit root test. If the null hypothesis of the unit root cannot be rejected as a result of the unit root test, the significance of the Fourier terms is tested using the F test for Model 4.

The hypotheses of the FSURADF unit root test are as follows:

$$\begin{array}{ll} H_0^1: \phi_1 = 0; & H_A^1: \phi_1 < 0 \\ H_0^2: \phi_2 = 0; & H_A^2: \phi_2 < 0 \\ \cdot & \cdot \\ \cdot & \cdot \\ H_0^N: \phi_N = 0; & H_A^N: \phi_N < 0. \end{array} \quad (5)$$

Although the structure of the hypotheses is the same as the structure in the single-equation unit root tests, the SUR model provides effective estimators and stronger test statistics (Breuer et al., 2002).

4. Empirical results and discussion

We performed horizontal cross-sectional dependence test² before applying the panel unit root test, and the results allowed us to conclude there was a horizontal cross-sectional dependence. In addition, we rejected the null hypothesis that the slope coefficients for the panel are homogeneous by using Pesaran and Yamagata (2008)³ test for assessing homogeneity of the unit root equations' slope coefficients. In this study, the SURADF unit root test that Breuer et al. (2002) developed, which does not take structural breaks into account, and the SURFADF unit root test Chang et al. (2012) proposed, which does take structural breaks into account, were applied to the data set. In addition, we applied Augmented Dickey-Fuller (ADF), Kwiatkowski-Phillips-Schmidt-Shin (KPSS), and

² Details of horizontal cross-sectional dependence tests applied to the data set are included in Appendix A.

³ Details of the Pesaran and Yamagata (2008) test are included in Appendix B.

Phillips- Perron (PP) tests that do not take structural changes into consideration among times series unit root tests, which only handle units from the time dimension. We also applied Fourier ADF (FADF) unit root tests that consider structural changes with Fourier function, which was developed by Christopoulos and Leon-Ledesma (2010). The results are presented as a table.

Table 2 The results of ADF, KPSS and PP unit root tests

Countries	La g	ADF		PP		KPSS	
		Test Stat.	Prob.	Test Stat.	Prob.	Test Stat.	Critical Values
United States	0	-2.181	0.490	-3.493	0.482	0.147	0.146
Germany	0	-2.375	0.387	-2.374	0.389	0.207	0.146
Austria	0	-3.058	0.127	-3.048	0.129	0.079	0.146
Belgium	0	-2.174	0.494	-2.220	0.469	0.087	0.146
United Kingdom	0	-1.756	0.712	-2.067	0.552	0.075	0.146
Denmark	0	-2.927	0.162	-2.883	0.175	0.203	0.146
France	0	-2.391	0.380	-2.349	0.401	0.138	0.146
Netherlands	0	-2.105	0.531	-2.039	0.567	0.108	0.146
Spain	0	-0.542	0.978	-1.061	0.926	0.135	0.146
Sweden	0	-5.385	0.001	-5.386	0.001	0.180	0.146
Switzerland	0	-1.866	0.658	-2.052	0.560	0.209	0.146
Italy	0	-1.082	0.923	-1.126	0.915	0.199	0.146
Canada	0	-4.929	0.001	-4.937	0.001	0.099	0.146
Luxembourg	0	-2.519	0.318	-2.476	0.338	0.114	0.146
Norway	0	-2.709	0.237	-2.540	0.308	0.122	0.146
Portugal	0	-1.280	0.882	-1.441	0.838	0.131	0.146
Turkey	0	-5.803	0.001	-5.887	0.000	0.111	0.146
Greece	0	-0.699	0.968	-0.631	0.973	0.171	0.146
Japan	1	-2.073	0.549	-2.110	0.529	0.170	0.146
Finland	0	-3.751	0.027	-3.769	0.026	0.075	0.146
Australia	0	-3.013	0.138	-2.942	0.159	0.073	0.146
Mexico	0	-2.104	0.532	-4.219	0.008	0.134	0.146
Poland	0	-2.078	0.546	-2.136	0.514	0.169	0.146
South Korea	0	-3.708	0.030	-3.672	0.033	0.164	0.146
Chile	0	-2.571	0.295	-2.443	0.354	0.139	0.146
Israel	0	2.749	0.222	-2.473	0.339	0.085	0.146

Table 2 presents the results of the ADF, KPSS, and PP unit root tests. The ecological footprint series of Switzerland, Canada, Turkey, Finland, and South Korea were found to be stable according to the ADF unit root test results. The null hypothesis of nonstationarity could not be rejected for the other countries. In addition to the five countries we found to be stationary according to the ADF unit root test results, we also rejected the null hypothesis of nonstationarity for Mexico's ecological footprint series according to the PP unit root test results. Based on the results of the KPSS unit root test, we rejected the null hypothesis of stationarity for the ecological footprint series of the United States, Germany, Denmark, Sweden, Switzerland, Italy, Greece, Japan, Portugal, and South Korea, thus concluding these series to be nonstationary. The stationarity null hypothesis could not be rejected for the ecological footprint series of the remaining 16 countries. These three unit root tests do not take into account structural changes. Possible structural changes in the series could weaken

the power of these tests. Therefore, unit root tests that take structural changes into account should be applied to attain stronger test results.

Table3 The results of Christopoulos and Leon-Ledesma (2010) FADF unit root test

Countries	MINSS R	k	lag	FADF	FADF Critical Value (%5)	F(k)
United States	16.679	2	8	-1.369	-3.28	31.069*
Germany	7.386	1	8	-3.311	-3.85	107.908*
Austria	2.741	2	7	-3.495	-3.28	31.896*
Belgium	4.999	2	10	-2.399	-3.28	55.282*
United Kingdom	5.601	2	9	-4.215	-3.28	19.060*
Denmark	19.912	1	10	-3.123	-3.85	30.9267*
France	6.279	2	5	-2.119	-3.28	21.404*
Netherlands	12.505	2	7	-2.688	-3.28	31.877*
Spain	10.946	2	4	-2.578	-3.28	26.383*
Sweden	17.874	1	4	-2.659	-3.85	7.0352*
Switzerland	6.965	1	7	-3.738	-3.85	29.754*
Italy	8.507	1	6	-3.047	-3.85	27.377*
Canada	12.936	2	4	-4.665	-3.28	13.019*
Luxembourg	50.180	2	9	-2.142	-3.28	28.593*
Norway	37.503	1	8	-1.896	-3.85	27.445*
Portugal	4.982	1	1	-2.955	-3.85	35.308*
Turkey	0.864	3	1	-6.773	-3.06	4.709**
Greece	13.002	1	9	-3.214	-3.85	25.593*
Japan	10.892	1	6	-4.147	-3.85	19.908*
Finland	13.649	2	10	-4.0473	-3.28	15.129*
Australia	15.031	2	10	-3.210	-3.28	32.918*
Mexico	2.837	1	3	-3.575	-3.85	7.285*
Poland	6.150	1	9	-2.812	-3.85	72.441*
South Korea	0.019	1	5	-4.239	-3.85	8.602*
Chile	3.464	2	8	-1.644	-3.28	22.074*
Israel	4.324	2	9	-3.226	-3.28	37.693*

*Presents 5% significance level for Fourier terms, ** presents 10% significance level.

In Table 3, k refers to appropriate frequency count, lag refers to appropriate number of delays, FADF refers to the test statistics obtained for the FADF unit root test, FADF critical value refers to the critical value of 5% for the FADF unit root test, and F(k) refers to the F statistics of the model obtained for the significance of the Fourier terms. The results suggest that Fourier terms in the FADF equations were significant at 10% for Turkey's series and at 5% for other countries. We picked the value that gives the minimum residual sum of squares as the appropriate frequency count, using the T-statistics approach when deciding the appropriate number of delays because Campbell and Perron (1991) and Ng and Perron (1995) showed that this criterion is stronger than other criteria. According to the results of the FADF unit root test, the unit root null hypothesis was rejected at 5% significance level for the ecological footprint series of Austria, United Kingdom, Canada, Turkey, Japan, Finland, and South Korea, while the unit root null hypothesis could not be rejected for the remaining 19 countries.

Table 4 The results of SURADF unit root test

Countries	Lag Number	Test Statistics	Critical Value
-----------	------------	-----------------	----------------

			% 1	% 5	% 10
United States	1	-3.576	-10.36	-9.070	-8.474
Germany	1	-5.283	-7.505	-6.282	-5.761
Austria	1	-3.551	-9.100	-7.867	-7.284
Belgium	1	-3.930	-8.905	-7.706	-7.108
United Kingdom	1	-3.480	-7.191	-6.095	-5.564
Denmark	1	-4.820	-8.977	-7.884	-7.308
France	1	-3.273	-9.125	-7.906	-7.307
Netherlands	1	-2.561	-8.743	-7.528	-6.980
Spain	1	-4.640	-7.962	-6.881	-6.297
Sweden	1	-6.348	-8.449	-7.179	-6.655
Switzerland	1	-3.533	-8.638	-7.406	-6.806
Italy	1	-6.462	-12.09	-10.86	-10.19
Canada	1	-3.432	-7.894	-6.802	-6.242
Luxembourg	1	-3.513	-8.235	-7.068	-6.497
Norway	1	-3.173	-9.313	-7.998	-7.358
Portugal	1	-4.315	-8.259	-7.088	-6.494
Turkey	1	-5.089	-8.068	-6.977	-6.389
Greece	1	-5.549	-8.352	-7.127	-6.544
Japan	1	-2.673	-11.54	-10.27	-9.571
Finland	1	-3.390	-7.474	-6.359	-5.822
Australia	1	-5.483	-10.73	-9.457	-8.783
Mexico	1	-3.812	-7.270	-6.109	-5.582
Poland	1	-3.223	-7.904	-6.752	-6.202
South Korea	1	-3.741	-8.018	-6.784	-6.165
Chile	1	-5.397	-7.830	-6.559	-5.989
Israel	1	-1.495	-8.536	-7.246	-6.660

Table 4 shows the results of the SURADF unit root test. According to these results, no country were not found to be stationary.

Table 5 Results of SURFADF unit root test

Countries	k	Lag	Test Statistics	Critical Value		
				% 1	% 5	% 10
United States	1	1	-5.971	-12.85	-11.37	-10.57
Germany	1	1	-7.749	-10.59	-8.929	-8.210
Austria	2	1	-6.094	-10.05	-8.405	-7.631
Belgium	3	1	-6.572	-9.245	-7.562	-6.795
United Kingdom	2	1	-5.941	-8.636	-7.140	-6.423
Denmark	2	1	-7.468	-10.62	-8.955	-8.127
France	1	1	-6.735	-11.16	-9.907	-9.245
Netherlands	1	1	-5.134	-11.47	-9.841	-9.119
Spain	1	1	-8.640	-10.85	-9.463	-8.745
Sweden	2	1	-9.601	-10.24	-8.447	-7.512
Switzerland	1	1	-5.893	-10.72	-9.399	-8.793
Italy	1	1	-8.076	-14.05	-12.06	-11.11
Canada	2	1	-6.556	-9.481	-7.992	-7.152
Luxembourg	1	1	-5.169	-9.514	-8.305	-7.730

Norway	1	1	-6.847	-11.20	-9.437	-8.657
Portugal	1	1	-7.979	-10.23	-8.878	-8.133
Turkey	2	1	-7.730	-9.113	-7.649	-7.008
Greece	2	1	-7.540	-10.82	-9.017	-8.078
Japan	1	1	-6.639	-13.27	-11.84	-11.11
Finland	1	1	-3.192	-9.412	-8.271	-7.658
Australia	5	5	-5.402	-8.260	-6.971	-6.279
Mexico	5	1	-3.957	-7.654	-6.276	-5.582
Poland	1	1	-5.376	-10.67	-9.024	-8.215
South Korea	2	1	-5.193	-8.786	-7.501	-6.796
Chile	3	1	-6.197	-8.268	-6.831	-6.124
Israel	1	1	-3.901	-9.854	-8.693	-8.071

Table 5 shows the results of the SURFADF panel unit root test. According to these results, the ecological footprint series of the Sweden and Turkey were found to be stationary at the five-percent significance level. Moreover, the ecological footprint series of Chile were found to be stationary at the ten-percent significance level.

Table 6 Summary of Countries of Stationary (According to individual unit root test results)

ADF	PP	KPSS	FADF
Switzerland, Canada, Turkey, Finland and South Korea	Switzerland, Canada, Turkey, Finland, South Korea, Mexico	Austria, Belgium, United Kingdom, France, Netherlands, Spain, Canada, Luxembourg, Norway, Portugal, Turkey, Finland, Australia, Mexico, Chile, Israel	Austria, United Kingdom, Canada, Turkey, Japan, Finland, South Korea

Table 7 Countries of Stationary (According to panel unit root test results)

SURADF	SURFADF
All countries are nonstationary	Sweedeen, Turkey

The individual results suggested more countries to be stationary compared to the results of the time series unit root test. In case the structural changes were not taken into account, the results for the panel suggested that no country were not found to be stationary. However, we observed the Sweden and Turkey to be stationary when structural changes were taken into account with the help of Fourier functions. The nonstationarity that was found according to the results of the SURADF unit

root test for the Sweden and Turkey can be seen as resulting from structural changes.

5. Conclusions

In this study, the stationarity characteristics of the ecological footprint variable were examined for 26 OECD countries over the 1961–2016 period. The ecological footprint indicator, considered the most comprehensive indicator of environmental degradation, was used in this study, and stationarity characteristics were evaluated for each country separately.

The stationarity of the ecological footprint variable was tested using the SURADF panel unit root test that Breuer et al. (2002) recommended and the SURFADF panel unit root test that Chang et al. (2012) recommended. The SURADF unit root test takes into account CD. It also provides information for each country separately. Meanwhile, the SURFADF panel unit root test takes into account the structural breaks in the series, the number, structure, and location of which are unknown. According to the results of the SURADF panel unit root test, which does not take into account structural changes, the basic hypothesis of the unit root can not be rejected for any country. The basic hypothesis of the unit root for the ecological footprint variables belonging to the Sweden, Turkey and Chile was rejected at the five- and ten-percent levels according to the results of the SURFADF unit root test, which takes into account structural breaks. The ecological footprint data of the remaining 23 countries were not found to be stationary under structural breaks. Applying a unit root test that does not take into account structural breaks showed no country's series not to be stationary, whereas applying unit root test, which takes into account structural breaks, showed only three countries' series to be stationary. This means that conducting a unit root test that does not take into account structural breaks could lead to test results of nonstationarity, which is in fact caused by structural breaks. The number of countries that are found stationary increases when structural breaks are taken into account. In other words, given the existence of structural breaks, if these breaks are not taken into account, the series may behave as if they are nonstationary. The effects of any policy intervention would be insignificant on countries that are stationary according to the results of the SURFADF panel unit root test, in which structural breaks are taken into account. Therefore, policy interventions would have permanent effects on these countries, which have nonstationary ecological footprint data. The countries are the United States, Germany, Austria, Belgium, United Kingdom, Denmark, France, Netherlands, Spain, Switzerland, Italy, Canada, Luxembourg, Norway, Portugal, Greece, Japan, Finland, Australia, Mexico, Poland, South Korea,

Israel. The effects of political interventions on countries with stationary ecological footprint data would be temporary. The effects of global decisions about environmental regulations on countries that are found to be nonstationary would be permanent. For the policymakers, nonstationarity of the ecological footprint series ensures that the effects of policies for this indicator will be permanent. In addition, because the ecological footprint variable contains many components (cropland, grazing land, fishing grounds, built-up land, forest area, and carbon demand on land), countries need to consider both their geographical characteristics and levels of development when creating policies. Countries of similar income levels can make similar decisions. For most countries, the carbon compositions of the ecological footprint make up the maximum portion of their total ecological footprint. Therefore, more focus can be put on policies on carbon emissions. To suppress the demand for carbon, a carbon tax as well as a subsidy for the use of alternative clean energies can be implemented. In addition, given that the ecological footprint index is an index of six components, the stochastic behavior of these components can be analyzed in future studies to see the dynamics of each component.

In this study, the panel features of the examined data were used and every country was interpreted separately. Finally, additionally structural changes were taken into account. These three advantages helped this study contribute to the literature as well as paved the way for future panel studies on ecological footprint indicators. With the application of different unit root tests in the future, it will be possible to obtain even more information about countries and variables and to make comparisons.

Appendix A

Cross-Section Dependency Tests

For cases where N is fixed and T is $\rightarrow \infty$, we used a Lagrange Multiplier (LM) statistic developed by Breusch and Pagan (1980) to test the null hypothesis, indicating that there is no horizontal cross-sectional dependence. The Chi-square test statistics that are distributed with a degree of freedom of $N(N-1)/2$ are as follows:

$$CD_{LM} = T \sum_{i=1}^{N-1} \sum_{j=i+1}^N \hat{p}_{ij}^2 \quad \text{Eq.(A.1)}$$

Here \hat{p}_{ij} shows the sample estimate of the correlation coefficients obtained from the residuals of the model examined. In his study, Pesaran (2004) recommended the use of the following LM test statistic, which demonstrates normal distribution under null hypothesis, claiming that the test recommended by Breusch and Pagan (1980) could not be applied when $N \rightarrow \infty$.

$$CD_{LM} = \sqrt{\frac{1}{N(N-1)}} \sum_{i=1}^{N-1} \sum_{j=i+1}^N (T \hat{p}_{ij}^2 - 1) \quad \text{Eq.(A.2)}$$

To overcome the problem of size disorder when N is large and T is small, Pesaran (2004) recommended the following test statistic:

$$CD = \sqrt{\frac{2}{N(N-1)}} \sum_{i=1}^{N-1} \sum_{j=i+1}^N \hat{p}_{ij} \quad \text{Eq.(A.3)}$$

The LM test statistics recommended by Pesaran et al. (2008), which satisfy the consistency property even in cases where CD test is inconsistent and whose normally distributed divergence is corrected while $T \rightarrow \infty$ and $N \rightarrow \infty$, are as follows:

$$LM_{adj} = \sqrt{\frac{2}{N(N-1)}} \sum_{i=1}^{N-1} \sum_{j=i+1}^N \hat{p}_{ij} \frac{(r_{ij-k} \hat{p}_{ij}^2 - \mu r_{ij})}{\sqrt{V_{Tij}^2}} \quad \text{Eq.(A.4)}$$

Here μ and V refer to the expected value and variant of \hat{p}_{ij} respectively, and k refers to the number of regressors.

Horizontal cross-sectional dependence test results for EF data are included in the table.

Table A.1 The results of cross-section dependency test

Test	Statistics	p-value
Breusch ve Pagan (1980) CD_{LM}	4876.387	0.000
Pesaran vd. (2004) CD_{LM}	177.5003	0.000
Pesaran vd. (2004) CD	35.62063	0.000
Pesaran vd. (2008) LM_{adj}	177.2639	0.000

Appendix B

Pesaran Yamagata (2008) Homogeneity Test of Slope Coefficients

The test developed by Pesaran and Yamagata (2008) is used to test whether the slope coefficients in the panel model differ between horizontal cross-sections. The recommended test statistics for large and small samples for the test, where the null hypothesis denotes that the slope coefficients are homogeneous, are as follows:

$$\text{For large sample: } \tilde{\Delta} = \sqrt{N} \frac{N^{-1} \tilde{s} - k}{\sqrt{2k}} \quad \text{Eq.(B.1)}$$

$$\text{For small sample: } \tilde{\Delta}_{adj} = \sqrt{N} \frac{N^{-1} \tilde{s} - k}{\sqrt{Var(t,k)}} \quad \text{Eq.(B.2)}$$

Here, N refers to the number of units, S refers to the Swamy (1970) test statistics, k refers to the number of explanatory variables, and Var (t, k) refers to the standard error.

Table B.1 Results of Homogeneity Test of Slope Coefficients

Test	Test Statistics	p-value
$\tilde{\Delta}$	6.720	0.000
$\tilde{\Delta}_{adj}$	6.907	0.000

References

- Al-Mulali, U, Weng-Wai, C, Sheau-Ting, L, Mohammed, A H, (2015) Investigating the Enviromental Kuznets Curve (EKC) hypothesis by utilizing the ecological footprint as an indicator of environmental degradation. *Ecological Indicators*, 48, 315-323.
- Bahmani- Oskooee, M, Chang, T, Wu, T, (2014) Revisiting purchasing power parity in African countries: panel stationary test with sharp and smooth breaks. *Appl. Financ. Econ.* 24(22), 1429-1438.
- Becker, R, Enders, W, Hurn, S, (2004) A general test for time dependence in parameters. *Journal of Applied Econometrics* 19, 899-906.
- Becker, R, Enders, W, Lee, J, (2006) A Stationary test in the presence of an unknown number of smooth breaks. *Journal of Time Series Analysis*, 27(3), 381-409.
- Bella, G, Massidda, C, Mattana, P, (2014) The relationship among CO₂ emissions, electricity power consumption and GDP in OECD countries. *Journal of Policy Modeling*, 36, 970-985.
- Breuer, J B, McNown, R, Wallace, M, (2002) Series-specific unit root tests with panel data. *Oxford Bulletin of Economics and Statistics*, 64(5), 527-546.
- Breusch, T S, Pagan, A R, (1980) The lagrange multiplier testans its applications to model specification tests in econometrics. *Review of Economic Studies*, 47, 239-253.
- Chang, T, Lee, C-H, Chou, P, Wang, S-C, (2012) Purchasing power parity for transition countries. *eastern European economics*, 50(4), 42-59.
- Chen, Y C Y, Inglesi-Lotz, R., Chang, T, (2019) Co₂ emissions converge in China and G7 countries? Further evidence from Fourier quantile unit root test. *Energy & Environment*, 31,2, 348-363.

- Christidou, M, Panagiotidis, T, Sharma, A, (2013) On the stationarity of per capita carbon dioxide emissions over a century. *Economic Modelling*, 33, 918-925.
- Christopoulos, K D, Leon-Ledesma, M A, (2010) Smooth breaks and non-linear mean reversion: Post-Bretton Woods real Exchange rates. *Journal of International Money and Finance*, 29, 1076-1093.
- Enders, W, Lee, J, (2012) The flexible fourier form and Dickey–Fuller type unit root tests. *Economics Letters*, 117(1), 196-199.
- Enders, W, Lee, J, (2004) Testing for a Unit Root with a Nonlinear Fourier Function. University of Alabama, Mimeo.
- Global Footprint Network (GFN), (2020) About the data. (Accessed 20 April 2020) https://data.footprintnetwork.org/?_ga=2.62193327.2070879746.1586900578-1579208821.1586900578#/analyzeTrends?type=EFCtot&cn=5001 >.
- Heil, M, Selden, T M, (1999) Panel stationarity with structural breaks: carbon emissions and GDP. *Applied Economics Letters*, 6, 223-225.
- Hossain, S, (2012) An econometric analysis for CO₂ emissions, energy consumption, economic growth, foreign trade and urbanization of Japan. *Low Carbon Economy*, 3, 92-105.
- Kasman, A, Duman, Y S, (2015) CO₂ emissions, economic growth, energy consumption, trade and urbanization in new EU member and candidate countries: A panel data analysis. *Economic Modelling*, 44, 97-103.
- Kruse, R, (2011) A new unit root test against ESTAR based on a class of modified statistics. *Stat. Pap.* 52(1), 71-85.
- Lean, H H, Smyth, R, (2010) CO₂ emissions, electricity consumption and output in ASEAN. *Applied Energy*, 87, 1858-1864.
- Lee, C C, Chang, C P, Chen, P F, (2008) Do CO₂ emission levels converge among 21 OECD countries? New evidence from unit root structural break tests. *Applied Economics Letters*, 15, 551-556.
- Lee, C. C, Lee, J D, (2009) Income and CO₂ emissions: Evidence from panel unit root and cointegration tests. *Energy Policy*, 37(2), 413-423.
- Ludlow, J, Enders, W, (2000) Estimating non-linear ARMA models using Fourier coefficients. *International Journal of Forecasting*, 16, 333-347.
- Narayan, P K, Popp, S, (2010) A new unit root test with two structural breaks in level and slope at unknown time. *J. Appl. Stat.* 37(9), 1425-1438.
- Ozcan, B, Ulucak, R, Dogan, E, (2019) Analyzing long lasting effects of environmental policies: evidence from low, middle and high income economies. *Sustainable Cities and Society*, 44, 130-143.

- Pesaran, M. H, (2004) General diagnostic tests for cross section dependence in panels. Cambridge Working Papers in Economics, Faculty of Economics, University of Cambridge, 435, 1-46.
- Pesaran, M H, Yamagata, T, (2008) Testing slope homogeneity in large panels. *Journal of Econometrics*, 142, 50-93.
- Pesaran, M H, Ullah, A, Yamagata, T, (2008) A bias-adjusted LM test of error cross-section independence, *The Econometrics Journal*, 11(1), 105-127.
- Rees, W E, (1992) Ecological footprints and appropriated carrying capacity: what urban economics leaves out. *Environ. Urbanization* 4(2), 121-130
- Rees, W, Wackernagel, M, (1996) Urban eecological footprints: why cities cannot be sustainable and why they are a key to sustainability. *Environ. Impact Assess. Rev.* 16 (4-6), 223-248.
- Solarin, S A, Bello, M O, (2018) Persistence of policy shocks to an environmental degradation index: the case of ecological footprint in 128 developed and developing countries. *Ecological Indicators*, 89, 35-44.
- Swamy, P A V B, (1970) Efficient inference in a random coefficient regression model. *Econometrica*, 38, 311-323.
- Tarnas, R, (2010). *The passion of the western mind*. Published by Pimlico, (firtst edt: 1991).
- Tiwari, A, K, Kyophilavong, P, Albulescu, C T, (2016) Testing the stationarity of CO₂ emissions series in Sub-Saharan African countries by incorporating nonlinearity and smooth breaks. *Research in International Business and Finance*, 37, 527-540.
- Ulucak, R, Apergis, N, (2018) Does convergence really matter fort he environment? An application based on club convergence and on the ecological footprint concept fort he EU countries. *Environmental Science and Policy*, 80, 21-27.
- Ulucak, R, Lin, D, (2017) Persistence of policy shocks to ecological footprint of the USA. *Ecological Indicators*, 80, 337-343.
- Yavuz, N. C, Yılançı, V, (2013) Convergence in per capita carbon dioxide emissions among G7 countries: a TAR panel unit root approach. *Environ Resource Econ*, 54, 283-291.
- Yılançı, V, Gorus, M, S, Aydın, M, (2019) Are shocks to ecological footprint in OECD countries permanent or temporary?. *Journal of Cleaner Production*, 212, 270-301.

- Wackernagel, M, (1994) Ecological footprint and appropriated carrying capacity: a toll for planning toward sustainability. The University of British Colombia (PhD Thesis).
- Wang, Y, Kang, L, Wu, X, Xiao, Y, (2013) Estimating the environmental Kuznets curve for ecological footprint at the global level: A spatial econometric approach. *Ecological Indicators*, 34, 15-21.
- Wang, S, Li, G, Fang, C, (2018) Urbanization, economic growth, energy consumption, and CO₂ emissions: Empirical evidence from countries with different income levels. *Renewable and Sustainable Energy Reviews*, 81, 2144-2159.

CHAPTER VIII

UNEMPLOYMENT RATE - ECONOMIC GROWTH NEXUS: AN EMPIRICAL EVALUATION FOR TURKEY

Assist. Prof. Dr. Evren İPEK

Bandırma Onyedi Eylül University, Balıkesir-Turkey
e-mail:eipek@bandirma.edu.tr, Orcid ID: 0000-0003-4855-6545

Master Programme Student Onuray ELAL

Bandırma Onyedi Eylül University, Balıkesir-Turkey
e-mail:onurayelal12@gmail.com, Orcid ID: 0000-0001-7407-2953

1. Introduction

Economic growth and unemployment rate have always been major drivers to explain economic facts because of their interaction with other microeconomic and macroeconomic factors, yet their relationship are prevalent inquiries that a great number of researchers has embarked upon in their studies. The classical approach to these two macroeconomic factors and their nexus states that their relationship is disclosed as reversed, meaning any increase in one should give a rise to a decline in the other. As explained in the classical assumption, having more output leads to more employment, but less output produced in a period instigates more unemployment.

The economic cost of unemployment is the loss in production that would be realized if the unemployed were employed and it is measured by GDP gap concept. GDP gap, which is the negative difference between real GDP and potential GDP, reflects the loss in output that unemployment causes. The economic cost of unemployment depends on the percentage decrease in real GDP that is caused by 1% increase in unemployment rate. American economist Arthur Okun proved that 1% rise in unemployment rate causes a 3% reduction in real GDP (3% increase in the difference between real GDP and potential GDP) in his empirical analysis for American economy (Ünsal, 2017: 122-123).¹ According to the Okun's

¹ This analysis is called as Okun's Rule of Thumb which can be defined with an equation where GDP* is potential GDP, U is unemployment rate, U_N is natural unemployment rate:

$$(\text{Real GDP}-\text{GDP}^*)/\text{GDP}^*=-3(\text{U}-\text{U}_\text{N})$$

Law, each 1% increase in real GDP growth rate over 2.25% causes a 0.5% decline in unemployment rate (Dinler, 2017: 500).

With that being put forward, a lot of research and inquiry has been taken for the investigation of the interrelation between unemployment rate and economic growth. Some of them empirically proved the validity of Okun's Rule for the country being investigated while others repudiated the validity of the law and came up with different results, and some validated or rejected parts of the rule for the country being put under the investigation. As for this study, the focal point of investigation is to set out the interaction between economic growth and unemployment for Turkey. The study aims to test the validity of Okun's Law for Turkish economy by analyzing the short-term and long-term effects of the variables on each other.

Turkey is a developing country, which has experienced fluctuations in its economy and resulted in different stages of economic progress. Turkey witnessed economic expansions in its economy from 2002 to 2008, yet the unemployment rate didn't tend to fall considerably in a response to the expansions during six years (Öztürk and Sezen, 2018: 2). According to the TURKSTAT data, the unemployment rate of Turkish economy increased to 14.6% in July 2020 with the effect of pandemic process and it remains at a high level even if it decreased to 14.1% in February 2021². Hence, this empirical inquiry will shed light on the interaction between the variables for Turkish economy by using quarterly data, which covers the period from 2005Q1 to 2020Q3. In the first phase of the analysis, stationarity level of data is checked out by the utilization of unit root tests. In the following stage, bound test procedure is employed to demonstrate the long-term cointegration relation among the investigated variables. Thirdly, Autoregressive Distributed Lag Model analysis is carried out for the inspection of the impacts of independent variables. Lastly, Toda Yamamoto causality analysis is utilized to check the causal relation.

The subsequent sections of the study are arranged as follows: second part includes an evaluation regarding labour force statistics of Turkish economy, literature review is presented in the third section, methodological explanations and the empirical findings are represented respectively in the fourth and fifth sections, and finally the last part contains the consequences and recommendations.

² Figure 1 submits the data related to the post 1991 period of Turkish economy.

2. Unemployment indicators of Turkish economy

This section reveals basic labour force statistics of Turkish economy over years. The observations from these statistical indicators, which are represented in Table 1 and Table 2, are summarized below:

There is an uptrend in unemployment rate during 2014-2020 period. However, the increase becomes more noticeable in 2019 and 2020, mostly depending on the economic effects of the pandemic process. Unemployment rate rises from 11% to 13.2% in the period from 2018 to 2020. According to World Bank data, the unemployment rate is 6.69 % in upper middle-income economies, 7.41% in Europe and Central Asia and 7.37% in European Union in 2020.³ As it is seen, Turkey's unemployment rate is much higher than these country groups, which are also affected from pandemic process. Then, the unemployment rates of Turkish economy reflects some structural problems besides the effects of the pandemic.

- One important determination regarding unemployment rate of Turkish economy is that, unemployment rates reached remarkable levels in 2019 and 2020 considering the post-1991 period. Turkey experienced negative GDP growth rates in the years of 1994, 1999, 2001, 2009. However, even in these years, the unemployment rate reached these high levels in only 2009. Table 1 and Figure 1 demonstrate this situation.

- In 2020, a remarkable decrease in labour force participation rate and employment rate is accompanied by an increase in unemployment rate. Labour participation rate decreases from 53.2% to 49.3% and unemployment rate rises from 11% to 13.2% in the period from 2018 to 2020.

- It is observed that female unemployment rate exceeds male unemployment rate for each year in the period under review. Both female and male unemployment rates, 16.5% and 12.4% respectively, reached a peak in 2019.

- Although there is an increase in female labour participation rate over period, it is seen that the female unemployment rate is constantly on the rise.

- Female labour participation rate of Turkish economy, which is observed to decrease from 34.4% to 30.9% in the period from 2019 to 2020, is at a low level. This ratio is 50.57% in Europe and Central Asia, 50.85% in European Union and 54.75% in upper middle-income

³ According to World Bank, Turkey is included in Europe and Central Asia group when classification is made by region and in upper middle-income group when classification is made by income. Furthermore, Turkey is a candidate country for the European Union. That is why comparisons were made by these country groups.

economies in 2019. Moreover, World Bank data for the year 2019 reveals that Turkey ranks lower in the list of countries whose data has been disclosed. However, an increment in female labour force participation rate and female employment rate may accelerate the economic growth.

- Unemployment rate for youth in the 15-24 age group is 25.4% in 2019. This ratio exceeds the youth unemployment rate of upper middle-income countries, which is 15.72% in the same year. Moreover, it is seen that youth unemployment rate in 2019 is 16.84% in European Union and 16.56% in Europe and Central Asia Region.

Table 1. Labour force status by non-institutional population (15+) (thousand person)

Years	Labour force	Employed	Unemployed	Labour force participation rate	Unemployment rate	Employment rate
TOTAL						
2001	23 491	21 524	1 967	49.8	8.4	45.6
2009	24 748	21 277	3 471	47.9	14.0	41.2
2014	28 786	25 933	2 853	50.5	9.9	45.5
2015	29 678	26 621	3 057	51.3	10.3	46.0
2016	30 535	27 205	3 330	52.0	10.9	46.3
2017	31 643	28 189	3 454	52.8	10.9	47.1
2018	32 274	28 738	3 537	53.2	11.0	47.4
2019	32 549	28 080	4 469	53.0	13.7	45.7
2020	30 873	26 812	4 061	49.3	13.2	42.8
MALE						
2001	17 040	15 555	1 485	72.9	8.7	66.5
2009	17 898	15 406	2 491	70.5	13.9	60.7
2014	20 057	18 244	1 813	71.3	9.0	64.8
2015	20 453	18 562	1 891	71.6	9.2	65.0
2016	20 899	18 893	2 006	72.0	9.6	65.1
2017	21 484	19 460	2 024	72.5	9.4	65.6
2018	21 801	19 720	2 082	72.7	9.5	65.7
2019	21 863	19 156	2 707	72.0	12.4	63.1
2020	21 105	18 506	2 599	68.2	12.3	59.8
FEMALE						
2001	6 451	5 969	482	27.1	7.5	25.1
2009	6 851	5 871	979	26.0	14.3	22.3
2014	8 729	7 689	1 040	30.3	11.9	26.7
2015	9 225	8 058	1 167	31.5	12.6	27.5
2016	9 637	8 312	1 324	32.5	13.7	28.0
2017	10 159	8 729	1 431	33.6	14.1	28.9
2018	10 473	9 018	1 455	34.2	13.9	29.4
2019	10 686	8 924	1 762	34.4	16.5	28.7
2020	9 768	8 306	1 462	30.9	15.0	26.3

Source: TURKSTAT (Access Date: 02.04.2021)

Table 2. Labour force status of young people in the 15-24 age group by years and sex (thousand person)

Years	Population of young people age between 15 and 24	Labour force	Labour force participation rate	Unemployment rate	Employment rate
2014	11 724	4 789	40.8	17.9	33.5
2015	11 800	4 958	42.0	18.5	34.2
2016	11 845	5 025	42.4	19.6	34.1
2017	11 875	5 146	43.3	20.8	34.3
2018	11 785	5 182	44.0	20.3	35.0
2019	11 667	5 182	44.4	25.4	33.1
2020	11 711	4 574	39.1	25.3	29.2

Source: TURKSTAT (Access Date: 02.04.2021)

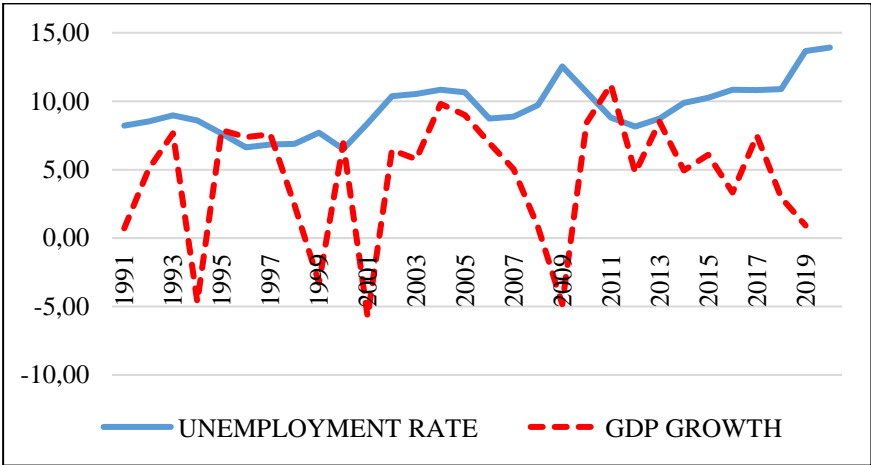


Figure 1. The unemployment rate and GDP growth rate of Turkish economy

Source: World Bank Database (Access Date: 02.04.2021)

As evidenced by the macroeconomic data, rise in unemployment rates is an important issue for Turkish economy due to the social and economic costs of the problem. Therefore, it is important to determine the interaction of unemployment rates with economic growth because this determination will help to create policy recommendations for the solution of unemployment problem.

3. A brief literature review

Being one of the most influential factors on other economic variables has put economic growth and unemployment rate under a tremendous

attention. Many people put these variables under an investigation with a hope to enlarge our comprehension of their effects either on each other or on other economic variables. Given that each country a researcher can investigate is in the possession of a relatively different economic structure than others, although some similarities can be detected as well, a consensus about effects of the variables on each other has not been reached at yet. Consequently, numerous of researchers have reached different results upon economic growth and unemployment rate in their investigations.

Li and Liu (2012) elaborated the nexus among economic growth, inflation and unemployment rate for Chinese economy with the use of annual data including the timeline of 1978 to 2010. In their empirical analysis, they opted to employ VAR and Vector Error Correction methods. As to their findings concerning their investigation, long-term equilibrium among variables was proven with additional findings of an inverse relation in long term and a same-way relation in short term. With that being found, their findings violate Okun's Law for China. Furthermore, their Granger Causality test results indicated a causal relation from economic growth to unemployment rate.

Bayar (2014) delved into the impacts of the economic growth of Turkish economy on unemployment rate by the use of quarterly data from 2000Q1 to 2013Q3. The findings from bound testing approach with ARDL indicated a cointegration relation between the variables as well as emphasizing opposite relations both in short and long run.

Çavlak, Çetin, Günaydın and Topçu (2014) investigated the influence of unemployment rate on economic growth for European Union by using annual data from 1984 to 2012. Their panel cointegration test results indicated a cointegration relation between the variables. Not only did they prove the inverse relation between the variables in panel OLS estimation but they also underlined bidirectional causality between the variables in panel Granger causality test.

Dritsakis and Stamatiou (2016) conducted an inquiry into Greek economy and explored the impacts of unemployment rate on economic growth. They used annual data from 1995 to 2015. By employing bound testing methodology in their investigation, they decided on the existence of a cointegration relation. Their results also put forth negative effects derived from unemployment rate upon economic growth. Lastly, the direction of causal relation was found from unemployment rate to growth in Granger causality test.

Emeka, Emmanuel and Michael (2016) probed the connection among unemployment rate, private consumption expenditure and economic

growth for Nigerian economy by the use of annual data from 1980 to 2013. Johansen cointegration test outcome indicated a cointegration relation among the variables and empirical findings pointed out a negative relationship. Besides, Granger causality test results supported a causal impact of economic growth on unemployment rate.

Çakmak, Soylu and Okur (2018) conducted an investigation related to economic growth and unemployment rate interaction for Eastern European countries by employing annual panel data for 1992-2014 period. The findings of the investigation demonstrated a cointegration relation between the variables along with finding a negative influence of economic growth on unemployment for the countries involved in the study.

Öztürk and Sezen (2018) investigated unemployment rate and economic growth debate for Turkish economy for 2005Q1- 2017Q3 period. They employed Engle Granger cointegration test and Granger causality test for the exploration of empirical relations between the variables. The findings pointed out a cointegration relation between the variables. Moreover, they determined casual impacts of economic growth on unemployment. Their study validated Okun's Law for Turkey by proving an inverse relationship between the variables.

Gachunga and Kuso (2019) put forward the investigation regarding the influence of unemployment rate on economic growth for Kenya by the utilization of annual data for 1971-2017 period. The presence of cointegration relation among the variables was detected by the application of Johansen cointegration analysis. The outcome of the analysis demonstrated unemployment rate having positive effects on economic growth, which contradicts Okun's Law for the country. The findings from Granger causality test manifested a casual effect of unemployment rate on GDP growth.

De Lima and Marques (2019) empirically analysed the determinants of unemployment rate for Brazil economy with the use of monthly data from March 2012 to June 2018. The results from bound testing procedure demonstrated that the variables in interest were counteracted and they supported a reverse interrelation between unemployment rate and output both in the short and long term.

Ben-Salha and Mrabet (2019) explored unemployment rate and real GDP debate for Algeria, Egypt, Morocco and Tunisia with annual data set from 1991 to 2013. They used ordinary least square estimation technique to examine the validity of Okun's Law. The empirical findings indicated an inverse relationship for Egypt and Algeria. Moreover, the relation is

found to be negative for Morocco in recession periods and for Tunisia in expansion periods.

An, Ball, Jalles and Loungani (2019) scrutinized Okun's Law for seventy countries divided into three categories of high, middle and low-income groups. They used annual data set from 1990 to 2014 in Seemingly Unrelated Regression estimations. The findings of the inquiry pointed out that all of the high and middle-income economies involved in study demonstrated a negative interaction between unemployment and economic growth with exception of Romania, being insignificant in middle-income group.

Boğa (2020) empirically analysed the economic growth-unemployment nexus for Turkish economy by utilization of quarterly data set for 2000-2019 period. According to the Johansen cointegration results, the variables were not cointegrated. However, results from additional cointegration analysis underlined an asymmetric cointegration between the variables. The findings indicated that changes in output in recession periods affected unemployment rate while the opposite was not valid.

Tumanoska (2020) explored the interaction between unemployment rate and GDP growth for seven South Eastern European countries and fourteen EU member countries with data for the period from 1991 to 2017. The study employed panel cointegration analysis to reveal cointegration relation between the variables. Furthermore, panel Autoregressive Distributed Lag Model results presented a negative relationship between the variables.

Akgül (2020) is another study that explicated the relationship for Turkish economy. Empirical analysis was utilized by handling monthly data from 2005 to 2018 and by application of MS-AR model. The findings of the study underlined that the interrelation between the variables is dissimilar in expansion and contraction periods. Unemployment rate was found to be insensitive to the changes in output in contractionary period while being sensitive to the changes in output in expansionary periods. So, Okun's coefficient was found to be negative in expansionary period even though the coefficient was not statistically significant in contractions.

Al-Sawaie (2020) explored the relation for Jordan by handling annual data for 1976-2018 period. The outcomes of ARDL bound testing procedure indicated a cointegration relation between the variables. The findings also emphasized bidirectional causality between the variables in addition to validating Okun's Law for Jordan with findings of negative impacts.

Arpat, Çamurdan and Çeviř (2021) conducted their research with the intention of disclosing the relation between unemployment and GDP growth for Turkish economy. The data set covers the period from 1982 to 2017. Their results indicated a cointegration relation between the variables along with demonstrating negative short and long run impacts that were derived from the estimation of Autoregressive Distributed Lag Model.

4. Data and methodology

The empirical analysis of the study aims to explore the interaction between unemployment rate and GDP growth rate for Turkey. Empirical research is utilized with quarterly data comprising 2005Q1-2020Q3 period of the economy. Gross domestic product⁴ data, by which economic growth is calculated, is provided from the Central Bank of the Republic of Turkey (CBRT), while unemployment rate data is acquired through Organisation for Economic Co-operation and Development (OECD) database. All data is seasonally adjusted. The definition of the variables is represented in Table 3. The empirical examinations are carried out by the application of unit root tests, bound testing procedure, Autoregressive Distributed Lag Model analysis and Toda Yamamoto causality test respectively.

Table 3. Explanation about variables

Variable	Symbol	Explanation	Source
Economic Growth	EG	Percent Change in Real GDP	CBRT
Unemployment Rate	UN	Unemployment Rate	OECD

Unit root tests, provided before any other further empirical analysis, have a substantial role in any empirical inquiry considering the fact that studying with data that includes unit root problem may lead a spurious regression problem. In case of having a spurious regression, empirical analysis produces unreliable results and forecasts for the inquiry (Ogbonna and Uma, 2017:130). Moreover, clarification of integration order is necessary because of their impacts on other further empirical analyses. As an illustration, Johansen cointegration analysis necessitates the variables to be stationary in the first difference, while bound testing procedure allows studying with time series that are stationary in levels. Furthermore, estimations with a model that includes I(0) and I(1) series do not create a problem in bound testing procedure whereas any data integrated of order 2 cannot be included since the analysis carried out under these conditions causes misleading results (Bařar et al., 2009: 304). Another epitomized sample of importance of unit root tests can be given from Toda Yamamoto

⁴ GDP in Chain Linked Volume by Expenditure Approach

causality test process. Having at least one variable stationary at first difference instigates some adjustments for lag interval choices in the testing procedure for the causality test. Therefore, conducting unit roots tests are significantly vital for an empirical analysis.

Pesaran et al. (2001) evolved bound testing procedure as a cointegration methodology. In the first stage of testing procedure, Unrestricted Error Correction Model⁵ (UECM) is built and the selection of optimal lag length (m) for this model is so essential. This determination is made with the use of Akaike(AIC) and Schwarz(SCH) criteria. After the estimation of UECM with the optimal lag length, Wald test is applied for the determination of collective significance of one-lagged variables ($H_0: \beta_3 = \beta_4 = 0$). F statistic obtained from this test will shed light on cointegration relationship. In decision of cointegration, F statistic is checked against bound values. If the model involves variables that are integrated of order one, the F statistic must exceed the upper bound; however if all the variables are stationary in levels, the F statistic must exceed the lower bound for the decision of a cointegration relationship (Pesaran et al, 2001: 299). Pesaran et al. (2001) and Narayan (2005) calculated critical bounds.

Utilization of Autoregressive Distributed Lag (ARDL) Model⁶ aims specification of the impacts of independent variables. The optimum lag length of each variable is identified by information criteria such as Akaike and Schwarz. The long-term coefficients⁷ from ARDL (m, n) Model reflects the long-term impacts on dependent variable. The impacts are determined by the observation of the signs and the significance of these long-term coefficients.

Error Correction Model⁸ presents the short-term impacts of independent variables on the dependent variable. The interpretation related to the short

5

$$Y_t = \beta_0 + \sum_{i=1}^m \beta_{1i} \Delta Y_{t-i} + \sum_{i=0}^m \beta_{2i} \Delta X_{t-i} + \beta_3 Y_{t-1} + \beta_4 X_{t-1} + e_t$$

6

$$Y_t = \beta_0 + \sum_{i=1}^m \beta_{1i} Y_{t-i} + \sum_{i=0}^n \beta_{2i} X_{t-i} + e_t$$

7

$$\text{Long Term Coefficient} = \frac{\sum_{i=0}^n \beta_{2i}}{1 - \sum_{i=1}^m \beta_{1i}}$$

8

$$\Delta Y_t = \beta_0 + \sum_{i=1}^m \beta_{1i} \Delta Y_{t-i} + \sum_{i=0}^n \beta_{2i} \Delta X_{t-i} + \beta_3 ECT_{t-1} + e_t$$

term impacts are realized by the observation of the signs and the significance of the explanatory variables. The Model includes an Error Correction Term (ECT) that is one lagged error term of the ARDL Model. This variable is expected to have significant and negative coefficient. A significant and negative error correction term supports the cointegration relationship between the variables. The ECT demonstrates how soon the imbalance will be eliminated in case of a bias in the long-term relation due to shocks (Keskin, 2008: 228).

Causality analyses are performed by Toda Yamamoto test, which depends on VAR Model estimations. It is preferred to the other tests because the success of this method does not depend on the performance of unit root and cointegration tests (Şengül and Tuncer, 2006: 75). Whether the series are cointegrated or not is not essential. In this methodology, optimal lag length for VAR Model (k)⁹ is increased by the maximum integration level of variables (dmax). In the equation of each variable, the collective significance of the coefficients of the other variable explaining that variable is tested. If the estimated coefficients are different from zero, the null hypothesis is rejected which means decision of casual relation. Toda and Yamamoto (1995) state that Modified Wald (MWald) test depending on the VAR Models has chi-square distribution. The estimation of VAR Models by Seemingly Unrelated Regressions (SUR) increases the efficiency of the results (Rambaldi and Doran, 1996; Hacker and Hatemi-J, 2003: 776). SUR method considers the correlation between errors and so it is superior to OLS method which assumes errors as independent (Wahyudi and Sani, 2014: 40).

5. Empirical results

Empirical analyses consist of unit root analysis, bound testing procedure, ARDL Model and Toda Yamamoto causality analysis. The findings from the utilization of these methodologies are displayed respectively in this section of the study.

9

$$\begin{aligned}
 Y_t &= \lambda_0 + \sum_{i=1}^k \beta_{1i} Y_{t-i} + \sum_{j=k+1}^{d \max} \beta_{2j} Y_{t-j} + \sum_{i=1}^k \alpha_{1i} X_{t-i} + \sum_{j=k+1}^{d \max} \alpha_{2j} X_{t-j} + e_{1t} \\
 X_t &= \lambda_0 + \sum_{i=1}^k \phi_{1i} X_{t-i} + \sum_{j=k+1}^{d \max} \phi_{2j} X_{t-j} + \sum_{i=1}^k \partial_{1i} Y_{t-i} + \sum_{j=k+1}^{d \max} \partial_{2j} Y_{t-j} + e_{2t}
 \end{aligned}$$

5.1 Empirical findings from unit root tests

The integration order of variables is evaluated by the use of four-unit root tests namely, Augmented Dickey-Fuller (ADF), Philips-Perron (PP), Kwiatkowski-Phillips-Schmidt-Shin (KPSS) and Ng-Perron. The results related to the stationarity properties of the data are presented in Table 4 and Table 5. As deduced from the tables, ADF, PP and Ng-Perron tests indicate that unemployment (UN) variable is integrated of order 1, while KPSS test demonstrates stationarity in levels. Majority of the unit root tests exhibit that unemployment rate variable is I(1) while economic growth variable is found to be stationary in levels according to all utilized unit root tests. Unit root test results represent that the analyses do not involve variables that are integrated of order two and these findings prove that there are no barriers for the application of bound test.

Table 4. Empirical findings from ADF, PP and KPSS tests

Variable	ADF	PP	KPSS	Decision
EG	-9.6259(0)^{c*} [-3.5401] ⁱ [-2.9092] ⁱⁱ	-9.6355(1)^{c*} [-3.5401] ⁱ [-2.9092] ⁱⁱ	0.0528(3)^{c*} [0.7390] ⁱ [0.4630] ⁱⁱ	I(0)
UN	-2.7750(1)^b [-4.1156] ⁱ [-3.4852] ⁱⁱ	0.4273(3)^a [-2.6027] ⁱ [-1.9461] ⁱⁱ	0.1317(5)^{b*} [0.2160] ⁱ [0.1460] ⁱⁱ	I(1)
ΔUN	-4.6263(0)^{a*} [-2.6034] ⁱ [-1.9462] ⁱⁱ	-4.6263(0)^{a*} [-2.6034] ⁱ [-1.9462] ⁱⁱ		

Note: In ADF test, lag length is determined by Schwarz criteria. In PP, KPSS tests; Bartlett Kernell estimation method and Newey-West bandwidth is applied. Values in "[]" are critical values; i, ii displays 1% and 5% significance level respectively. Numbers in "()" are lag lengths. a: signifies that there is not a constant term or trend in model; b: signifies that there is constant term and trend in model; c: signifies that there is constant term in model. *, **, indicates 1% and 5% significance level.

Table 5. Empirical findings from Ng-Perron test

Variable	NG- Perron				Decision
	MZ _α	MZ _t	MSB	MPT	
EG	-16.27(1)^{c*} [-13.800] ⁱ [-8.100] ⁱⁱ	-2.42 (1)^{c**} [-2.580] ⁱ [-1.980] ⁱⁱ	0.14(1)^{c*} [0.174] ⁱ [0.233] ⁱⁱ	3.00(1)^{c**} [1.780] ⁱ [3.170] ⁱⁱ	I(0)
UN	-8.73(3)^b [-23.800] ⁱ [-17.300] ⁱⁱ	-2.05(3)^b [-3.420] ⁱ [-2.910] ⁱⁱ	0.23(3)^b [0.143] ⁱ [0.168] ⁱⁱ	10.57(3)^b [4.030] ⁱ [5.480] ⁱⁱ	I(1)
ΔUN	-22.73(0)^{b**} [-23.800] ⁱ [-17.300] ⁱⁱ	-3.33(0)^{b**} [-3.420] ⁱ [-2.910] ⁱⁱ	0.14(0)^{b**} [0.143] ⁱ [0.168] ⁱⁱ	4.25(0)^{b**} [4.030] ⁱ [5.480] ⁱⁱ	

Note: In Ng-Perron test, Bartlett Kernell estimation method and Newey-West bandwidth is applied. Values in "[]" are critical values; i, ii displays 1% and 5% significance level respectively. Numbers in "()" are lag lengths. b: signifies that there is constant term and trend in model; c: signifies that there is constant term in model. *, **, indicates 1% and 5% significance level.

5.2 Results from bound testing procedure

Bound testing methodology provides evidence for the existence of cointegration. The procedure starts with the optimum lag length (m) specification for UECM. The optimum lag length is the one that makes either Akaike or Schwarz information criterion minimum and additionally does not create autocorrelation problem. Table 6 presents the information about lag length selection for the two unrestricted error correction models that will be estimated. These two models are represented below:

Model 1:

$$\Delta EG_t = \beta_0 + \sum_{i=1}^m \beta_{1i} \Delta EG_{t-i} + \sum_{i=0}^m \beta_{2i} \Delta UN_{t-i} + \beta_3 EG_{t-1} + \beta_4 UN_{t-1} + \varepsilon_t$$

Model 2:

$$\Delta UN_t = \delta_0 + \sum_{i=1}^m \delta_{1i} \Delta UN_{t-i} + \sum_{i=0}^m \delta_{2i} \Delta EG_{t-i} + \delta_3 UN_{t-1} + \delta_4 EG_{t-1} + \varepsilon_t$$

The optimum lag length is specified as one for Model 1 and for Model 2. The selection is due to the following reasons: firstly, the models estimated with these lag lengths have the lowest value of Akaike

information criterion, and secondly there is not an autocorrelation problem for the models estimated with this lag lengths. The following step in bound testing is to calculate F statistic and compare it with bound levels. Table 7 demonstrates the empirical findings from bound testing procedure. Since unit root test results proved that the model includes I (1) variable, the comparison is made by upper bound values. According to the results, F statistics are higher than upper bound, substantiating a statistically significant cointegration relation between the variables.

Table 6. Optimal lag length selection for UECM

MODEL 1				MODEL 2			
m	AIC	SCH	X ² BREUSCH-GODFREY(2)	m	AIC	SCH	X ² BREUSCH-GODFREY(2)
1*	4.692	4.900	1.774 (0.41)	1*	0.674	0.882	3.707 (0.15)
2	4.747	5.026	1.799 (0.40)	2	0.674	0.954	0.811 (0.66)
3	4.784	5.137	0.980 (0.61)	3	0.733	1.085	4.084 (0.12)
4	4.828	5.254	0.492 (0.78)	4	0.708	1.134	0.037 (0.98)
5	4.914	5.416	0.938 (0.62)	5	0.780	1.282	1.174 (0.55)
6	4.998	5.576	0.070 (0.96)	6	0.824	1.403	1.117 (0.57)
7	5.073	5.730	2.081 (0.35)	7	0.899	1.556	1.978 (0.37)
8	5.142	5.879	1.246 (0.53)	8	0.947	1.683	0.100 (0.95)

Note: X² BREUSCH-GODFREY is autocorrelation test statistics. Values in “()” indicate probability. * displays the selected lag.

Table 7. Empirical findings from bound testing procedure

	n	F Statistic	Critical Values**		
				Lower Bound	Upper Bound
Model 1	1	39.53	Pesaran et al (2001: 300)	4.94	5.73
Model 2	1	27.57	Narayan (2005: 1988)	5.26	6.16

Note: n denotes number of independent variables. The bound levels are obtained from Pesaran et al (2001: 300) and Narayan (2005: 1988). **: indicates 5% significance level.

5.3 Results from ARDL model estimations

ARDL model provides information related to the impacts of independent variables on the dependent variable. Seeing that ARDL model is better suited with small sample size and maintains more credible findings

than Engle-Granger and Johansen cointegration test for small size samples (Bayar, 2014: 23), this methodology is selected for the examination of the influence of variables on each other. Estimated ARDL Models are represented below:

Model 1:

$$EG_t = \beta_0 + \sum_{i=1}^m \beta_{1i} EG_{t-i} + \sum_{i=1}^n \beta_{2i} UN_{t-i} + \varepsilon_t$$

Model 2:

$$UN_t = \delta_0 + \sum_{i=1}^m \delta_{1i} UN_{t-i} + \sum_{i=1}^n \delta_{2i} EG_{t-i} + \varepsilon_t$$

Table 8. Empirical evidence related to long run impacts

MODEL 1 ARDL(3,1)			MODEL 2 ARDL(1,3)		
Dependent Variable: EG			Dependent Variable: UN		
Variable	Coefficient	t statistics	Variable	Coefficient	t statistics
UN	-0.263*	-3.329	EG	-2.722*	-4.982
c	4.556*	5.387	c	15.501*	14.994
Diagnostic Tests			Diagnostic Tests		
R ² = 0.64	$\overline{R^2} = 0.60$	X ² _{BG} = 0.50079 (0.735)	R ² = 0.97	$\overline{R^2} = 0.96$	X ² _{BG} = 1.0682 (0.383)
X ² _{WHITE} = 0.50485 (0.480)	X ² _{RAMSEY} = 0.23315 (0.631)	X ² _{NORM} = 0.54314 (0.762)	X ² _{WHITE} = 0.14697 (0.703)	X ² _{RAMSEY} = 0.10937 (0.742)	X ² _{NORM} = 0.60291 (0.740)

Note: * denotes for 1% significance level.

The long run coefficients, which are derived from ARDL Models, are represented in Table 8. Maximum lag order is determined as eight and optimal lag orders of ARDL models are specified by Akaike criteria. Long run coefficients point out a statistically significant reverse influence of unemployment rate on economic growth and vice versa.

Error Correction Models that are derived from ARDL Models are employed to explore short-term impacts of the variables on each other. Error Correction Models subject to estimations are represented below:

Model 1:

$$\Delta EG_t = \beta_0 + \sum_{i=1}^m \beta_{1i} \Delta EG_{t-i} + \sum_{i=0}^n \beta_{2i} \Delta UN_{t-i} + \beta_3 ECT_{t-1} + \varepsilon_t$$

Model 2:

$$\Delta UN_t = \delta_0 + \sum_{i=1}^m \delta_{1i} \Delta UN_{t-i} + \sum_{i=0}^n \delta_{2i} \Delta EG_{t-i} + \delta_3 ECT_{t-1} + \varepsilon_t$$

Empirical findings confirm the short-term reverse influences of the variables on each other. The relations are found to be statistically significant. Moreover, the ECT has a statistically significant and negative coefficient and this finding supports the cointegration results found in bound testing procedure. Thus, the finding of the cointegration test is valid and true.

Table 9. Estimation results from error correction models

MODEL 1 ARDL(3,1)			MODEL 2 ARDL(1,3)		
Dependent Variable: ΔEG			Dependent Variable: ΔUN		
Variable	Coefficient	t statistics	Variable	Coefficient	t statistics
$\Delta EG(-1)$	0.899*	3.733	ΔEG	-0.099*	-8.326
$\Delta EG(-2)$	0.298**	2.068	$\Delta EG(-1)$	0.157*	5.797
ΔUN	-5.911*	-8.326	$\Delta EG(-2)$	0.060*	3.443
$ECT(-1)$	-2.787*	-9.164	$ECT(-1)$	-0.139*	-4.605
c	12.703*	4.092	c	2.158*	6.186

Note: * denotes for 1% significance level.

The findings from ARDL Model estimations regarding the negative short run and long run impacts are supported by Bayar (2014), Öztürk and Sezen (2018) and Arpat, Çamurdan and Çeviř (2021) which also investigated the relationship for Turkish economy.

5.4 Results from Toda Yamamoto causality test

Causality tests make causal relationship between the variables known. Along with proving whether causality is present between the variables, causality tests underline the direction of causality. Toda Yamamoto causality test is utilized to evaluate the casual relations in this inquiry. The

first important step to fulfil in the test is to choose a lag order for VAR Models that will be estimated. Table 10 demonstrates information about the lag order selection for the VAR models. All criterion point out two as optimal lag for the VAR Model. Since the unit root tests prove the existence of I(1) variables in the model, one lag will be added to the optimal lag length and the causality analysis will be held on by the estimation of VAR (3) models. The estimated VAR models are represented below:

Model 1:

$$EG_t = \beta_0 + \sum_{i=1}^k \beta_{1i} EG_{t-i} + \sum_{j=k+1}^{d \max} \beta_{2j} EG_{t-j} + \sum_{i=1}^k \alpha_{1i} UN_{t-i} + \sum_{j=k+1}^{d \max} \alpha_{2j} UN_{t-j} + \varepsilon_{1t}$$

Model 2:

$$UN_t = \beta_0 + \sum_{i=1}^k \theta_{1i} UN_{t-i} + \sum_{j=k+1}^{d \max} \theta_{2j} UN_{t-j} + \sum_{i=1}^k \varphi_{1i} EG_{t-i} + \sum_{j=k+1}^{d \max} \varphi_{2j} EG_{t-j} + \varepsilon_{1t}$$

Table 10. Optimum lag determination for VAR model

Lag	LogL	LR	FPE	AIC	SCH	HQ
0	-259.0512	NA	45.46871	9.492771	9.565764	9.520998
1	-177.7077	153.8131	2.731204	6.680280	6.899262	6.764962
2	-163.9672	24.98265*	1.918098*	6.326082*	6.691051*	6.467218*
3	-160.8078	5.514611	1.981135	6.356648	6.867606	6.554240
4	-159.5132	2.165501	2.192869	6.455027	7.111972	6.709073
5	-156.2570	5.209965	2.264263	6.482073	7.285006	6.792574
6	-154.1083	3.281673	2.439663	6.549393	7.498314	6.916348
7	-151.3013	4.082854	2.573699	6.592776	7.687685	7.016186
8	-148.0580	4.481650	2.681387	6.620292	7.861189	7.100157

Note. * displays the optimum lag length.

The empirical outcomes, which are presented in Table 11, exhibit a statistically significant causal influence of economic growth on unemployment rate. Nevertheless, there is no evidence of an adverse causal effect. The results give support for a unidirectional causal relation from economic growth to unemployment rate at 5% significance level.

Table 11. Toda Yamamoto causality test results

Null Hypothesis	X ²	Probability	Sum of Lagging Coefficient	Direction of Causality
EG does not Granger cause UN	7.035**	0.029	-0.134	EG→UN
UN does not Granger cause EG	0.421	0.810	0.756	

Note: ** denotes 5 % significance level. → indicates a unidirectional causality.

6. Conclusion and recommendation

Economic growth is a highlighted goal that any economy wants to accomplish in a sustainable manner. Unemployment, on the other hand, is likely to impair this purpose with its appearance in an economy when it is higher than desired. Turkey has been experiencing high unemployment rates recently in its economy and this economical problem has been putting pressure on other economic indicators. Any comprehension of how unemployment affects or gets affected by other economic indicators is an alleviation of this pressure. Hence, this inquiry sets out for the exploration of the interaction between economic growth and unemployment rate for Turkish economy. The investigation period is determined as 2005Q1-2020Q3. The empirical analysis consists of bound testing procedure, ARDL analysis and Toda Yamamoto causality test respectively. Bound testing procedure proved the presence of cointegration between the variables. The results from ARDL Model estimations indicated negative and statistically significant short and long-term impacts of the variables on each other. Moreover, Toda Yamamoto causality test unveiled a unidirectional causal influence of economic growth on unemployment rate at 1% significance level.

To achieve a decline in unemployment rate, expansionary monetary and fiscal policies are first to appear in the mind. Given that Turkey has been experiencing high inflation rates along with high unemployment rates, any engagement in expansionary policies either monetary or fiscal will exacerbate the problems further. Instead, any engagement in incentives and encouragement for increase in aggregate production without engaging in any further deficit spending will both lower unemployment and inflation rate while promoting economic growth in the short run, such as tax reduction and payment deferment for producer. In the long term, increase in productivity, technology and innovation should be spurred to deflate the related problems that Turkish economy has been facing.

References

- Akgül, I. (2020). The analysis of the relationship between economic growth and unemployment in Turkey with Markov regime change models, *Economic Issues II*, Ed: Elsen Bağırzade, Işıl Akgül, and Selcuk Koç, İqtisad Universiteti Publishing, Baku, pp. 180-195.
- Al-Sawaie, K. M. (2020). The relationship between unemployment and economic growth in Jordan: An empirical study using the ARDL approach, *International Journal of Innovation, Creativity and Change*, 14(2), pp. 1068-1083.
- An, Z., Ball, L., Jalles, J. and Loungani, P. (2019). Do IMF forecasts respect Okun's Law? Evidence for advanced and developing economies, *International Journal of Forecasting*, 35 (3), pp. 1131-1142.
- Arpat, B., Çamurdan, B. and Ceviş, İ. (2021). An analysis for a sustainable growth based on environmental factors & Okun Law regarding Turkey, *Dünya ve Türkiye Ekonomisinin Dünyü, Bugünü ve Yarını*, Ed: Erol Taymaz and Emre Özçelik, Gazi Bookstore, Ankara, pp. 243-258.
- Başar, S., Aksu, H., Temurlenk M. S. and Polat Ö. (2009). Türkiye'de kamu harcamaları ve büyüme ilişkisi: Sınır testi yaklaşımı, *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 13 (1), pp. 301-314.
- Bayar, Y. (2014). Effects of economic growth, export and foreign direct investment inflows on unemployment in Turkey, *Investment Management and Financial Innovations*, 11(2), pp. 20-27.
- Ben-Salha, O. and Mrabet, Z. (2019). Is economic growth really jobless? Empirical evidence from North Africa, *Comparative Economic Studies*, 61(4), pp. 598-624.
- Boğa, S. (2020). Investigating the asymmetry between economic growth and unemployment in Turkey: A hidden cointegration approach, *Journal of Economics, Finance and Accounting*, 7 (1), pp. 22-33.
- Çakmak, İ., Soylu, Ö. B. and Okur, F. (2018). Economic growth and unemployment issue: panel data analysis in Eastern European Countries, *Journal of International Studies*, 11 (1), pp. 93-107.
- Çavlak, H., Çetin, M., Günaydın, D. and Topçu, B. (2014). Unemployment and its impact on economic growth in the European Union: An evidence from panel data analysis, *Regional Economic Integration and the Global Financial System*, Ed: Ümit Hacıoğlu, Hasan Dinçer and Engin Sorhun, IGI Global, Pennsylvania, pp. 12-22.

- De Lima, F. R. S. and Marques, J. B. (2019). Macroeconomic determinants of unemployment in Brazil: An ARDL approach, *Modern Economy*, 10 (7), pp. 1744-1758.
- Dinler, Z. (2017). *İktisada Giriş*, 23. Basım, Ekin Basım Yayın Dağıtım, Bursa.
- Dritsakis, N. and Stamatiou, P. (2016). The effects of unemployment on economic growth in Greece: An ARDL bound test approach, *The Romanian Economic Journal*, 19 (62), pp. 53-72.
- Emeka, A., Emmanuel, E. N. and Micheal, E. O. (2016). The relationship between unemployment and economic growth in Nigeria: Granger causality approach, *Research Journal of Finance and Accounting*, 7 (24), pp. 153-162.
- Gachunga, M. J. and Kuso, Y. (2019). An analytical study of the impact of unemployment on economic growth in Kenya, *International Journal of Business Marketing and Management*, 4 (4), pp. 52-57.
- Hacker, R. S. and Hatemi-J A. (2003). How productivity and domestic output are related to exports and foreign output in the case of Sweden, *Empirical Economics*, 28, pp. 767-782
- Keskin, N. (2008). Finansal serbestleşme sürecinde uluslararası sermaye hareketleri ve makroekonomik etkileri: Türkiye örneği. Yayınlanmamış Doktora Tezi, İzmir, DEÜ Sosyal Bilimler Enstitüsü.
- Li, C. and Liu, Z. (2012). Study on the relationship among Chinese unemployment rate, economic growth, and inflation, *Advance in Applied Economics and Finance*, 1 (1), pp. 1-6.
- Narayan, P. K. (2005). The saving and investment nexus for China: Evidence from cointegration tests, *Applied Economics*, 37 (17), pp. 1979-1990.
- OECD (2020). <https://data.oecd.org/unemp/unemployment-rate.htm#indicator-chart>
- Ogbonna, B. M. and Uma, K. E. (2017). Monetary policy, inflation and economic growth in Nigeria, *International Journal of Research in Management, Economics, and Commerce*, 7(10), pp. 126-134.
- Öztürk, S. and Sezen, S. (2018). Ekonomik büyüme ile işsizlik arasındaki ilişkinin analizi: Türkiye örneği, *Mustafa Kemal University Journal of Social Sciences Institute*, 15 (41), pp. 1-14.

- Pesaran, M. H., Shin Y. and Smith, R. J. (2001). Bound Testing Approaches to the Analysis of Level Relationships, *Journal of Applied Econometrics*, 16 (3), pp. 289-326.
- Rambaldi, A. N. and Doran, H. E. (1996). Testing for Granger non-causality in cointegrated systems made easy, *Working Papers in Econometrics and Applied Statistics*, No. 88, Department of Econometrics, University of New England, 1-23.
- Şengül, S. and Tuncer, İ. (2006). Türkiye'de enerji tüketimi ve ekonomik büyüme: 1960-2000, *İktisat İşletme ve Finans Dergisi*, 21 (242), pp. 69-80.
- Toda, Y. H. and Yamamoto, T. (1995). Statistical inference in vector auto regressions with possibly integrated process, *Journal of Econometrics*, 66, pp. 225–250.
- Tumanoska, D. (2020). The relationship between economic growth and unemployment rates: validation of Okun's Law in Panel Context, *Research in Applied Economics*, 12 (1), pp. 33-55.
- CBRT (2020). <https://evds2.tcmb.gov.tr>
- TURKSTAT (2020). <https://data.tuik.gov.tr>
- Ünsal, E. M. (2017). Makro İktisat, Genişletilmiş 11. Baskı, Murat Yayınları, Ankara.
- Wahyudi, I. and Sani, G. A. (2014). Interdependence between islamic capital market and money market: Evidence from Indonesia, *Borsa Istanbul Review*, 14, pp. 32-47.
- World Bank (2020). <https://databank.worldbank.org/source/world-development-indicators>.

CHAPTER IX

LABOR UNION APPROACHES IN THE WORLD AND IN TURKEY: NEW TECHNOLOGY AND LABOR UNIONS¹

Dr. Hüseyin SEVGİ

Kırklareli University, Turkey, e-mail: hsevgi@gmail.com
ORCID: 0000-0003-0295-0723

Introduction

New technologies have rapidly transformed many social and economic factors in recent years. And the working life has been greatly affected by this transformation. New information and communication technologies, in particular, have imposed a structural transformation both for workers and unions. New communication technologies have been reshaping the conventional structures in many fields with its fast transformation/change wave, and it is no longer a discussion but a reality of the age we live in. The features of new technologies such as speed, accessibility, and cheapness have the potential to create significant transformations in the founding elements of social life. In this context, with features such as mutual interaction (active interaction between users and information compared to the one-way conventional communication tools), demassification (sharing information specific to each individual rather than a large audience), and asynchronicity (control shift from the source of communication to the user in a communication system), new communication technologies have turned into a significant concept in studies on social transformation (Lucore, 2002: 20; Yücesan-Özdemir, 2009: 34).

The relationship between unions and new technologies in national and international literature has started to gain importance with the widespread use of computers and the internet. In the early 20th century, the term new technologies commonly referred to the new production technologies whereas they mostly refer to new information and communication technologies with the advent of computers and the Internet. In this context, the rapid progress in communication technologies since the beginning of

¹ This study was produced from a doctoral thesis completed in 2018 in Bursa Uludag University, Institute of Social Sciences, Labor Economics and Industrial Relations Department called "Social media and trade unions: A research of social network analysis in Germany, France, Netherlands, Poland and Turkey" conducted under the consultancy of Prof. Dr. Aysen Tokol.

the 21st century has made computer and internet usage widespread and socialized. Therefore, the effect of the new communication technologies on social life has started to be discussed in the literature (Almagor, 2011: 47).

While the impact of information and communication technologies on social life and actors has found a place in the literature, the discussion of how computers and the internet will affect unions partially arose late. In the union-internet relationship, it was first discussed that the internet made social opposition movements that could not be represented in the traditional media (television, newspaper, radio, etc.) visible by providing an alternative communication channel. There have also been discussions on how it radically changed the communication, organization, and activism forms of activists in social movements. These studies usually revolve around the opinion that the Internet makes social movements more visible both due to its speed and being a force on its own, outside the monopoly of the conventional media (Castells, 1997:107; Bennet, 2004:131; Vegh, 2003: 72-76).

With the increasing importance of computer and internet technologies, the impact of these technologies on unions and the working class have also come to the fore. In the beginning, it was thought that the internet made unionization difficult. However, as the space that the Internet takes in our daily lives grew, it came to be accepted in the literature that it actually closed the gaps in the national and international communication systems and paved the way for the dialogue between the working class (Lucio, 2003: 336; Lee, 2008).

In this context, the reshaping of union activities with the information and communication technologies also has a parallel meaning with the adaptation of unions as a whole to today's conditions. The ability of unions to benefit effectively from the speed and flexibility offered by new technologies depends on their ability to adapt faster to change and transformation processes by avoiding rigid bureaucratic structures. Thus, new communication technologies must be reconsidered under the union transformation approaches, and the union structures must be reconsidered in line with these new technologies (Kaplan & Haenlein, 2010; Shostak, 2015).

1. New Technologies and Union Transformation Approaches

The increasing widespread and socialization of computer and internet technologies especially by the late 1990s raised the curiosity on how these technologies would affect the unions. Both union and academic circles have begun discussing how and to what extent the unions will be affected

by the new technologies, especially when they still bear the heavy traces of the 19th century. Many likely outcomes of the computer and internet technologies such as simplifying bureaucratic processes, providing fast and cheap access to large masses, positive contributions to intra-union communication, and the development of democracy highlighted the idea that new technologies could be used in favor of unions.

On the other hand, a counterview also developed advocating that these new technologies would harm the future of unions and the union struggle. However, what is widely accepted in the literature is that computer and internet technologies are of vital importance to the union movement. There have also been certain attempts after the 2000s to adapt unions to the new technologies and facilitate the use of technologies in union activities. An example of that would be the "Communicate or Die" project conducted with the help of many unions and scientists in 2015 to point out the importance of the relationship between unions and the Internet. The main objective of the project was to highlight the importance of the Internet for the unions and to increase union awareness in this regard (Communicate or Die, 2010). And we see a rise in academic studies trying to explain the relationship between unions and new technologies in the early 2000s. The international literature has the following three approaches to examine the relationship between the internet technologies and unions: approaches on the union structures (e-union, virtual union, and cyber union), approaches on the impact of transformation (erosion, modernization, and democratization), and approaches on participation (organization and participation, syndical democracy and union struggle methods) (Darlington, 2002: 98-102; Shostak, 2015: 86-89; 40-43; Darlington, 2014). The most comprehensive study concerning the impacts of new technologies on the unions in Turkey has been conducted by Gamze Yücesan-Özdemir. According to Yücesan-Özdemir, new communication technologies have produced three different effects on the union movement in Turkey: pragmatic unionism, conservative unionism, and progressive unionism.

1.1. Transformation Approaches Based on Union Structures

Transformation approaches based on union structures include views on how traditional union structures will be shaped by the new communication technologies. And there are three fundamental approaches on how internet technologies will transform the structures of unions: e-union, virtual union, and cyber-union. Even though these approaches carry certain differences and similarities with each other, what they all have in common is that they try to reveal how internet technologies will affect unions in the future.

1.1.1. E-union

According to the most important representative of e-union, Roger Darlington, the internet is changing everything in the 21st century. Darlington brings up the concept of E-union in parallel with this dominant approach of the internet. And he comes up with two consequences for the relationship between the union movement and the Internet. First, unions, like any other institution of the society, should reshape themselves as e-organizations (e-unions) in line with the internet. This means that computers and internet technologies should not only be used in some union activities, but they should be the main focus of all union purposes and activities. In other words, the Internet must be made the goal itself, instead of just being used as a tool. And the second consequence of the internet-union relationship, according to Darlington, is that the reconstitution process of unions will deeply affect everything that unions have done before and should do. This means that computer and internet technologies will change trade union activities in a way that has never been seen before. In the e-union approach; unions change their modes and activity of communication as well as their structure and functioning in line with the new technologies (Darlington, 2014: 3-4).

The e-union approach can be the defining unionism movement of the 21st century with emails, websites, remote education, and video conference opportunities. According to this approach, with the new technologies, unions a) digitalize all their internal correspondences and communication. b) Communication and correspondences outside the union are made on the Internet. c) And the union-member relationships have become digitalized. The infrastructure required for union "e-membership" was created. d) Collective bargaining activities can be carried out electronically regardless of time and place. e) Websites and social media accounts of unions act as a "display window" for their relations with the outside world. f) All union conferences, meetings, and activities have been digitalized. Union training activities are carried out in the electronic environment as "e-training", providing effortless and cost-free training activities to many union members (Yücesan-Özdemir, 2009: 40).

What the e-union approach emphasizes is that unions need to go through a "renewal" process through establishing a relationship with technology and the unions. However, class conflict, the core of the union movement is largely ignored in this renewal process. It can be further argued that the need for making computer and internet technologies the goal itself can be a "capitalist trap" that will deviate unions from their real goals. In this context, if the unions adopt new technologies as their main

objective, their class structures may weaken, and they lose their strength as labor organizations against capital.

1.1.2. Virtual Union

Virtual union and e-union approaches are usually addressed in conjunction. Although not very different from e-union, virtual union actually constitutes the next stage of e-union. The virtual union is actually the goal of achieving one functioning union instead of multiple unions operating in the factories of multinational companies in different countries. In this context, time and space differences actually create the conditions of a virtual union. The most important thing separating virtual unions from e-unions is that they have no physical presence. Even though e-unions have computer and internet technologies at the core of their union activities and functioning, they maintain their physical presence at the same time. In the virtual union approach, the union has no physical presence (headquarters, meeting halls, branches, etc.) whatsoever. Virtual unions operate entirely in a virtual environment, both structurally and in terms of all their functions. Virtual unions conduct all their membership procedures, meetings, trainings, and other organizational activities via computer and internet technologies (Başaran, 2010: 14-15).

Although it is regarded as a hope or a way of liberation for the unions with the development of internet technologies, the virtual union is not entirely free from risks for the unions. Virtual unions run the risk of preventing workers from coming together physically. A virtual environment goes very well with the "individualization" goal of the capital but not so much with the "socialization" goal of labor. The Internet can actually be a threat to the physical spaces where workers can come together for solidarity. And it can also virtualize the activity of "producing together and sharing", leading to the decrease of its value. Conventional places of physical opposition and their participants are gradually disappearing, replaced by virtual places and participants of opposition (Atabek & Özdemir & Yüce, 2006: 307).

1.1.3. Cyber-union

Unlike e-union and virtual union, cyber-union unifies traditional unionization strategies with the new opportunities provided by the internet and computer technology. While the first two approaches regard the Internet as a transformative force, the cyber-union approach sees it as a mere tool. In this approach, internet and computer technologies are not at the center of union activities. It constitutes a part of economic, political, and social agency. In this context, unlike e-union and virtual union, the

cyber-union approach can maintain both class structure and physical existence (Yücesan-özdemir, 2009: 41; Başaran, 2007).

The cyber-union approach refers to the whole of the struggles carried out by the unions using all the means of technology. According to Shostak, one of the most important representatives of the cyber-union approach, unions that use new technologies at their highest level, revive their organization in the virtual environment and activate political functions will survive in the 21st century. The approach places great emphasis on forward-thinking, innovativeness, quality of service, and tradition. For cyber-union, internet technologies can be utilized with a strategic orientation (Selamoğlu & Özsoy, 2008: 33; Bennett & Taras, 2002:172).

Shostak divides unions into four categories in terms of their use of internet technologies: Cyber Naught, Cyber Drift, Cyber Gain, and Cyber Union. Cyber naught, cyber drift, and cyber gain refer to the way unions use new technologies in the process. And the cyber union is the desired final point. In this context, one can say that these definitions are actually stages. The relationship of unions with new technologies begins with one of the first three stages and is expected to eventually reach the cyber-union (Shostak, 2015: 10-11).

1.2. Approaches on the Impact of Transformation

Unions now reshape both their organizational structures and activities in line with the new technologies. Rapidly advancing computer and internet technology have reshaped not just the individuals but the whole society and its institutions, especially in the last 20 years. And unions would not be exempt from the impact of this technology-based transformation wave that is getting stronger every day. The role of information and communication technologies in this transformation process in unions emerges in three different forms, depending on the impact of transformation: Erosion, Modernization, and Democratization. These three forms address the possible consequences of new technologies on unions (Ward & Lusoli, 2003: 148).

1.2.1. Erosion

The spread of information and communication technologies by the early 1990s brought up radical claims that representative organizations such as trade unions would disappear. There were even claims that conventional institutions such as unions and non-governmental organizations would suffer the biggest loss in the internet age. In this context, erosion is associated with populist and direct democracy forms created by the new communication opportunities developed by the internet. In a more radical sense, it is based on the idea that all representative

organizations will be lost with the direct inclusion of citizens in the governance due to the internet and communication technologies (Grossman, 1996: 4-6).

The erosion that will be caused by new technologies on unions is thought to show itself in three different ways. First; the Spread of the Internet and new media will narrow down the traditional organization areas of unions and lead to erosion there. Second; The spread of information and communication technologies will lead to erosion through the more personal and consumption-oriented culture it creates. Such erosion will pave the way for individualization and damage collectivism, the trademark of unions. And the third kind of erosion will show itself by causing unions to be less involved in the new social movements. The biggest factor that leads to this erosion is the change in organizing ways for unions with technological developments. There is also a widespread opinion that unions are generally slow to grasp and adapt to information and communication technologies (Hogan and Grieco, 1999: 2; Bimber, 1998: 157).

1.2.2. Modernization

The modernization approach refers to reviewing the conventional activities of unions in line with the technological developments through the means that they provide. Modernization includes all attempts to make the union reach potential members and society in general as a more modern organization. It is argued that unions need a modernization process led by new technologies for both losing their members and suffering damage in their social legitimacy at the global level in recent years. In this context, information and communication technologies can be used in the modernization of union activities with the following goals (Hyman, 2007: 193):

Shortening bureaucratic processes, reaching potential workers, and increasing the number of their members, freely conducting their union activities over the Internet regardless of time and space restrictions and propaganda and organization activities. And the rapid adaptation of unions to the new technologies can also help transforming the social perspective towards unions. By effectively using the new technologies, unions will be able to eliminate the perception adopted by a certain part of the society that unions are outdated, backward, or irrelevant institutions. Hence, they can increase the social support they receive by offering people a structure that is more modern, adapting to innovations, and never falling behind the times (Ward & Lusoli, 2002: 150-151).

1.2.3. Democratization

Effective use of information and communication technologies by unions is not just a matter of modernization of the union structure. New technologies can help workers to expand their area of activity, run national and international campaigns and achieve more democratic structures in their unions. Traditionally strict and central institutions, unions can have the chance to assume a more flexible and democratic appearance with the help of new technologies. Social media platforms and online contents, for example, offer workers a platform to discuss the union decisions, to inspect the union more easily, and they increase the democratic ground to hold union management much more responsible (Michels, 1992: 342; Diamond & Freeman, 2001: 17-18).

With the new technologies, workers now have the chance to meet, discuss and connect to different networks much faster with individuals who have similar problems or interests by crossing the space and time limits. Personal use of new technologies cannot easily provide an organizational transformation or increase in union activities. Adapting them to the union activities, on the other hand, will help unions reach much wider audiences through national and international networks and communication with other union networks. This will provide a ground for workers to freely express their opinions (Hodkinson, 2004: 157).

1.3. Approaches on Participation

Approaches on participation, which are directly associated with the syndical democracy, try to explain the relationship between new technologies and participation in union activities. According to these approaches, new communication technologies take the communication between unions and workers to its highest level. And as a natural consequence, workers participate in the decision-making processes of unions much more actively. Furthermore, new technologies allow communication with other components outside the working life. These approaches are again divided into three groups as organization and participation, syndical democracy, and union struggle methods.

1.3.1. Organization and Participation

Allan Kerr and Jeremy Waddington studied the impact of new technologies in organization and participation. According to Kerr and Waddington; one of the fundamental limbs of unions, the organization is a vital activity that needs to be reshaped with the impact of new technologies. Effective use of new technologies will ensure that the information provided by the union is more up-to-date and personalized. Unions can reach masses through personal or categorized messages when necessary, instead of the

traditional communication where one single message is sent to everyone. And it can really help unions take a step further in their organization activities by reaching members and non-members alike much faster and effectively.

Another benefit of new technologies for unions and workers in terms of organization and participation is cheapness. It is comparably cheaper today to interact with people using these new technologies both for the union and the workers. The rising use of the internet among workers increases the opportunities for workers to participate in union management processes, with the advent of personal computers and the expansion of the internet web. At this point, how much the union actually renews itself on the axis of new technologies gains special importance. For example, interactive contact forms or surveys posted by unions on their social media accounts will positively contribute to this participation process. New technologies also offer international opportunities for the organization. Aiming to reduce the national pressures created by the global economy, unions can obtain more powerful positions by international cooperation achieved through new technologies (Fiorito & Jarley & Delaney, 2002: 658; Greer, 2002: 217).

1.3.2. Syndical Democracy

Establishing and maintaining syndical democracy is closely related to the use of new technologies in terms of organization and participation. In syndical democracy discussions, two factors are stated to have been affected by the union activity forms with the new technological developments. First, using new technologies in union activities will increase the internal communication of the union. Second, as the new communication technologies bring more flexibility, the hegemony within unions will weaken. Computer and internet technologies also allow minority and marginalized groups who are silenced such as women, the disabled, different ethnicities, and the LGBTQ community to reach unions (Colgan & Ledwith 2003: 155-156).

In this context, the positive contributions of the effective use of computer and internet technologies can be summarized as increased awareness of the union, the less centralization of the control over communication tools, and improved communication opportunities for union members. Following technological developments closely will be beneficial in the operation and development of syndical democracy. Ensuring the participation of its members in union processes via computer and internet technologies is important both in terms of transparency of the union and ensuring the commitment of the members to the union (Mcbride, 2001: 17; Greene & Hogan & Grieco, 2003: 285).

1.3.3. Labor Union Struggle Methods

With the advent of information and communication technologies, protest movements that can inspire unions have started to be carried out over the internet. Today, for example, consumers initiate virtual campaigns about products they are not satisfied with against brands that release the products, post content to damage the brand's image and force companies to act on this issue. Unions can also organize union activities over the Internet and try alternative ways to settle disputes with the inspiration they get from such campaigns. They can receive social support by announcing their union demands and their legitimacy through virtual campaigns in collective bargaining. In this case, the employer can be more willing to accept the demands of the union (Kerr & Waddington, 2014: 662-663; Klein, 2001: 15-16).

Campaigns carried out over the Internet now have a different meaning with the emergence and widespread of social media platforms. Especially after 2011, millions of people who were organized on social media and took to the streets in many countries showed the efficiency of the internet and social media as an organization tool. In this context, it is emphasized that new technologies are effective in two areas in terms of union activities. First, they allow workers to run their campaigns in the event of a strike or a lockout even when they are on their own with the effective use of computer and internet technologies by the union and workers. Secondly, they allow workers again to be in solidarity with other unions, democratic mass organizations, and other components on a national and international level Gerbaudo, 2012, 7-8; Martinez, 2003: 337).

1.4. New Technologies and Union Transformation Approaches in Turkey

The first comprehensive study on how unions are affected by the new technologies was conducted by Gamze Yücesan-Özdemir in 2009. Yücesan-Özdemir conducted in-depth interviews with experts and managers in a total of twelve unions, all of which are affiliated to three major labor confederations, and examined the impacts of new technologies, especially internet and computers, on the union movement in Turkey. According to Yücesan-Özdemir, new communication technologies have produced three different effects on the union movement in Turkey: pragmatic unionism, conservative unionism, and progressive unionism. Although the right thing is to find these three different unionism approaches within a union and to name that union with a certain approach, this is not always possible (Yücesan-Özdemir, 2009: 217-218).

1.4.1. Pragmatic unionism

The pragmatic unionism approach is based on the business administration understanding in the reconstitution of the union structure with the opportunities offered by the new communication technologies. In this approach, union administrations act like a company boss or a board member. For the union bureaucracy, technology means fast and cheap communication, transparency, information-document management, and union information systems. Unions that have a business administration understanding in new technologies are based on pragmatism. In this context, while powerful unions that are dominant in the working life tend to adopt a functional and practical approach, comparably more opposing unions have more innovative and experimental mindsets. In pragmatic unionism, unions regard new technologies as beneficial and generally use these technologies to realize their short-term goals. Just as a business striving to reach its annual sales quota, these unions try all kinds of ways, including new technologies, to achieve their goals. In this approach, if a union believes that it needs to use new technologies to achieve its goals, it will not shy away from using them in any way it can (Yücesan-Özdemir, 2009: 218; Munck, 2004: 388-389).

The popularity of social media increased the opportunities for unions to utilize these new technologies in line with their interests. In this approach, since unions use the new technologies to gain the utmost advantage, their presence on social media will surely resemble that of a business. Thanks to the two-sided communication and interaction enabled by social media, they will be able to have instant communication, a difficult thing to achieve with web pages and emails. They will use social media to reach their short and medium-term goals.

1.4.2. Conservative Unionism

The conservative unionism approach under new technologies dwells on the idea that union structures and bureaucracies cannot be transformed with the new communication technologies. Unions under leaders who are usually low-educated and prejudiced against new technologies adopt a conservative attitude towards new technologies. In this context, the general attitude of conservative unionism against new technologies is to point out the discordance between the convenience of these new technologies and the legal regulations.

Conservative unionism states that they have no intention of using new technologies in the formation of any social network or public opinion. According to this type of unionism, new technologies do not always save time, in fact, they are a burden for the union. Furthermore, conservative

unionism sees the internet as a threat to its own power in its relationship with the workers. This reveals the fears of conservative unionism that new technologies will undermine its power. The spread of social media; however, has been rendering the arguments of conservative unionism against technologies invalid. For example, the argument that internet technologies cannot be used for social networks and campaigns have lost their validity with social media platforms (Yücesan-Özdemir, 2009: 224-225).

1.4.3. Progressive Unionism

In progressive unionism, the implementation of new technologies in a union structure is mostly shaped by personal efforts and the principle of solidarity. Issues related to new communication technologies in unions are handled with devotion by different experts or secretaries, whose main area of expertise is not new technologies. They try to adapt with an amateur spirit and low budgets. The most prominent feature of this approach is its prevalence in small and medium-sized unions. Whereas unions with financial capabilities are reluctant to utilize the new technologies, small and medium-sized unions do not shy away from taking on great tasks with small budgets (Yücesan-Özdemir, 2009: 227).

What lies underneath large unions' reluctance to use new communication technologies is fundamentally the fear that they will lose their hegemony as unions. The main reason for this fear is the relationship that unions have established with employers and political parties to maintain their domains of power. Since the use of new communication technologies in union activities will lead to a contraction in their area of control, large unions are reluctant to see the opportunities these technologies may offer in union struggle (Fuchs, 2013).

Conclusion

The rapid development in new communication technologies deeply affects trade unions as well as other social actors. As traditional institutions, the adaptation of unions to the new technologies is quite important for the future of union movements. The developments in information and communication technologies are closely related to union activities. As social organizations for quite a long time, unions cannot escape from being a part of the social transformation. In this respect, it is also obvious how new communication technologies will be the driving force of the social transformation of the next 25 or 30 years. And it is not possible for unions to remain unaffected by the transformation of social structure.

Unions have had various approaches to new technologies over time. At first, the prevailing opinion was that new communication technologies would hinder trade union activities and have negative consequences for unions. Then, a more accepting approach prevailed. The transformation in information and communication technologies led to the belief that these technologies could be utilized to the benefit of unions. Since the early 2000s, national and international unions have been trying to adapt to these new information and communication technologies and use them in their union activities. Therefore, it is now accepted that new technologies do not pose any threat to the unions, rather create new opportunities for them.

The impacts of new technologies on unions have also been different in Turkey and the World. Many studies have been conducted on whether information and communication technologies will create a structural transformation in unions. There have been discussions in the international literature on the impacts of new technologies on unions in terms of their structure and activities. The changes that computer and internet technologies can bring about in union structures have also led to some radical approaches. At the core of these radical approaches lies the opinion that new communication technologies will entirely destroy the physical structure of unions. And there are also other approaches advocating that unions will be transformed by the new technologies but maintain their fundamental structures.

The biggest impact of new technologies on unions is expected to be on the union activities rather than their structures. The widespread use of the internet and the effect of social media lead to a methodological transformation in basic union activities. The fast, cheap, and instant communication opportunities of the internet affect union activities such as organization, propaganda, strike, collective bargaining, union solidarity, and training. Social media and other new communication technologies provide rapid access to large masses, and they are used by unions in a way to support traditional union activities. Therefore, unions regard new technologies as a complementary tool for their traditional methods. Today, unions do not conduct all their activities through new technologies.

New technologies' impact on the union activities in Turkey is different than their impact on international unions. Unions in Turkey are apprehensive of these new technologies due to certain social, cultural, and political factors. Also, union leaders' approach to the new technologies is one of the determining factors of the relationship between unions in Turkey and the new technologies. In this context, the distant approach of some union leaders to computer and internet technologies prolongs the adaptation process of these unions to new technologies. Furthermore, some

unions in Turkey see new technologies only as a tool in achieving their goals while others take it very seriously to adapt to these new technologies. Overall, the unions in Turkey are still in the initial stage of adapting to new technologies and using them in their union activities.

Information and communication technologies will inevitably affect and transform unions and their activities. Unions have long been affected by the transformative power of new technologies. And they must learn to adapt to them in order to get the highest benefit from the new technologies. However, unions should not forget that they are class organizations in their adaptation to new technologies. New technologies should be used in line with the interests of the working class. They should not be turned into the end goal. It should also be noted that new technologies are not "magic wands." Synchronization of union activities with both traditional methods and new technologies will ensure that unions benefit from new technologies at the optimum level.

References

- Almagor, R.C. (2011). Internet History, *International Journal of Technoethics*, 2(2): 45-64.
- Atabek, Ü. & Yücesan-Ödemir, G. & Yüce, E. (2006), Siberuzayda Sendikalar: Yeni Olanaklar, Yeni Sorunlar, XI. Türkiye'de İnternet Konferansı, TOBB Ekonomi ve Teknoloji Üniversitesi, Ankara.
- Başaran, F. (2007). Dünyada Sendikal Hareket ve İletişim Teknolojileri, 10. Ulusal Sosyal Bilimler Kongresi, Orta Doğu Teknik Üniversitesi, Ankara.
- Başaran, F. (2010). Sendikal Yenilenme ve İletişim Teknolojileri, *Çalışma ve Toplum*, 24: 11-32.
- Bennett, J. T & Taras, D. (2002). E-Voice: Information Technology and Unions. *Journal of Labor Research*, 23: 171-174.
- Bennett, L. (2004). Communicating Global Activism, Cyberprotest, New Media, Citizens and Social movements, Ed. W. Van de Donk. London: Routledge.
- Bimber, B. (1998). The Internet and Political Transformation: Populism, Community, and Accelerated Pluralism. *The University of Chicago Press Journal*, 31(1): 133-160.
- Castells, M. (2012). Networks of Outrage and Hope: Social Movements in the Internet Age. Cambridge: Polity Press.

- Colgan, F. & Ledwith, S. (2003). *Gender, Diversity and Trade Unions International Perspectives*, New York: Routledge.
- Communicate or Die (2010). FAQ About Communicate or Die. Retrieve From: <http://communicateordie.com/faq-about-communicate-or-die>. 15. 01.2021.
- Darlington, R. (2002). Left Wing Activism and Union Organization. *Capital and Class*, 76: 95-126.
- Darlington, R. (2004). The Creation Of The E-Union: The Use Of Ict By British Unions. Retrieve From: <http://www.rogerdarlington.co.uk/E-union.html>. 17.01. 2021.
- Diamond, W. J. & Freeman, R. (2001). Will Unionism Prosper in Cyberspace? The Promise Of The Internet For Employee Organisation, *National Bureau of Economic Research*, Working Paper No.W8483.
- Fiorito, J. & Jarley P. & Delaney, J. T. (2002). Information Technology, US Union Organizing and Union Effectiveness. *British Journal of Industrial Relations*, 40(4): 627-658.
- Fuchs, C. (2013) *Social Media: A Critical Introduction*. London: Sage Publications.
- Gerbaudo, P. (2012). *Tweets and the Streets: Social Media and Contemporary Activism*. London: Pluto Press.
- Greene, A. & Hogan, J. & Grieco, M. (2003). E-collectivism and distributed discourse: new opportunities for trade union democracy. *Industrial Relations Journal*, 34(4): 282–289.
- Greer, C. R. (2002). E-Voice: How Information Technology Is Shaping Life within Unions. *Journal Of Labor Research*, 23(2): 215-234.
- Grossman, L. K. (1996). *The Electronic Republic: Reshaping Democracy in America*, New York: Penguin Books.
- Hodkinson, S. (2004). Problems@Labour: Towards Net Internationalism?. *Electronic Democracy: Political Organisations, Mobilisation and Participation Via New ICT's*, Ed. Rachel K. Gibson & Andrea Römmele & Stephen J. Ward., London: Routledge.
- Hogan, J. & Grieco, M. (1999). Trade Unions On Line: Technology, Transparency and Bargaining Power, *Workshop on Cyber Ontology at the University of North London*, London.
- Hyman, R. (2007). How Can Trade Unions Act Strategically?. *European Review of Labour and Research*, 13(2): 193-210.

- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59–68.
- Lee, E. (2008). How The Internet Makes Union Organizing Harder. Retrieve From: http://www.ericlee.info/2008/02/how_the_internet_makes_union_o.html. 19.01.2021.
- Lucio, M.M. (2003). “ew Communication Systems And Trade Union Politics: A Case Study of Spanish Trade Unions and The Role of The Internet. *Industrial Relations Journal*, 34(4): 334-346.
- Lucore, R. E. (2002). Challenges and Opportunities: Unions Confront the New Information Technologies. *Journal of Labor Research*, 23(2): 201-214.
- Martinez, L. M. (2003). New communications systems and trade union politics: a case study of Spanish trade unions and the role of the internet. *Industrial Relations Journal*, 34(4): 334–347.
- McBride, A. (2001). Gender Democracy in Trade Unions, London: Ashgate Publishing.
- Michels, R. (1999). Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy. New Jersey: Transaction Publishing.
- Munck, R. (2004). Labour and Globalisation: Result and Prospect. Liverpool: Liverpool University Press.
- Selamoğlu, A. & Özsoy, A. (2008), Türkiye’de İşçi Sendikalarının ve Konfederasyonların Web Siteleri İçerik Analizi Üzerine Bir Değerlendirme. *Çalışma ve Toplum*, 17(2): 31-60.
- Shostak, A.B. (2015). The Cyberunion Handbook: Transforming Labor Through Computer Technology: Transforming Labor Through Computer Technology (1st ed.). New York: Routledge.
- Vegh, Sandor (2003), Classifying Forms of Online Activism, In: Cyberactivism, Ed. M. McCaughey & M. D. Ayers. London: Routledge.
- Ward, S. & Lusoli, W. (2002). Dinosaurs in Cyberspace? British Trade Unions and the Internet. *European Journal of Communication*, 18(2): 147-179.
- Yücesan-Özdemir, G. (2009). Emek ve Teknoloji Türkiye’de Sendikalar ve Yeni İletişim Teknolojileri. Ankara: Tan Yayınları.

CHAPTER X

MOTIVATIONS OF TURKISH YOUTH FOR POLITICAL PARTICIPATION¹

Res. Assist. Dr. Özge Öz DÖM

Ankara Yıldırım Beyazıt University, e-mail: oozdom@ybu.edu.tr
Orcid no: 0000-0001-6569-2261

Prof. Dr. Yılmaz BINGÖL

Ankara Yıldırım Beyazıt University, e-mail: ybingol@yahoo.com
Orcid no: 0000-0002-9077-6798

1. Introduction

This study aims to understand the differences between the motivations of the young members of the political parties and young members of civil society organizations in Turkey. Based on this inquiry, literature review and field research, seven basic motivations were formulated as citizenship, social capital, personal interests, family, social media, party identity, and social environment.

The main argument of the study is that the motivations of the young members of political parties and the young members of civil society differ based on citizenship, social capital, personal interests, family, social media, party identity, and social environment. So, we formulated seven sub-hypotheses and investigated the literature and the field.

In this study, we use the terms conventional and nonconventional forms of political participation, borrowed from Barnes and Kaase (1979) and Inglehart (1977, 1990). They originally use the unconventional, but in many studies, the term is used as nonconventional. In this study, we prefer using “nonconventional” simply because we want to emphasize that nonconventional forms of political participation are not the opposite of, but the complement to the conventional forms.

¹ This study is financially supported by The Scientific and Technological Research Council of Turkey (TÜBİTAK) via 2211-A Grant Programme. This paper is based on the Ph.D dissertation titled “CONVENTIONAL VS NONCONVENTIONAL FORMS OF POLITICAL PARTICIPATION: MOTIVATIONS BEHIND POLITICAL PARTICIPATION OF YOUTH IN TURKEY”

As stated in the literature, the civil society in Turkey differs from the civil society in West. In Turkey, civil society can be seen as a part of political system under heavy bureaucracy. However, in this study, we focused on the essence of civil society, which searches for the different channels of political participation and different channels to reach political systems. Civil society envisions an idea of a society through different organizations or groupings in real life so, besides the institutional structure of civil society in Turkey, we underlined this vision and called it nonconventional.

The contribution of this study to the existing literature is two folded; it is a comparative study, and we have a different perspective on descriptive data. Most of the studies underlying the motivations behind the political participation of the young members of the society use descriptive information². We argue that, with the increase in age, income level, educational level, and employment, the social environment of young people positively impact the political participation in Turkey. However, we claim that the recognition of the political issues comes with the age, education, employment, and income and that it comes from family, social environment and social media and develops through participation via the recognition of party identity, social capital, citizenship, and personal interests.

2. Conceptual and historical framework

2.1. Political participation

Political participation is not a static phenomenon. By continually evolving and adapting itself through the needs of society, it appears that the older generation does not pass on their political participation habits to younger generations. However, appearances can be deceiving; the individuals who are affected by and affecting the decision-making process may open new ways to participation and democratic involvement. Nowadays, newer forms of political participation have been evolving while

² In the literature, there are many studies focusing on the motivations of Turkish youth. Caymaz lists gender, family, social networks, individual interests, social capital, social media, party leader, and activities of the father as main motivations; Atacan and Kömürcü underline family, friendship, personal benefits, ideology, and serving people as the major motivations; Toraman and Şahbudak mention social environment, gender, education, income status, age and working class as significantly impactful; Erdoğan (2001; 2009) focuses on the education, gender, working for status and family, and Erdoğan and Uyan-Semerci (2017) focus on educational level, gender, working status (occupation), family, age, and place of residence. Bozan lists family, political leader, social milieu and political context, and individualistic expectations.

enlarging the sphere of politics to include lifestyle politics. Therefore, the gap between social and political is disappearing (Norris 2004), and if we accept that a democratic society requires politically-active citizens to survive, and citizens have found new ways to become active, then it should be studied further from the eyes of the younger generation, who will be the carriers and supporters of these new forms of political participation.

Verba and Nie underlines that "Political participation refers to those activities by private citizens that are more or less directly aimed at influencing the selection of governmental personnel and/or the actions they take" (1972: 2). They list four types of political participation as voting, campaign activity, cooperative activity, and citizen-initiated contacts (1972: 46-48). However, with this definition they exclude attitudes as a part of political participation; they exclude the participation in schools, family, jobs, voluntary associations, etc.; and they exclude the many features of participation, such as protests due to accepting only the legal and legitimate modes (Van Deth, 2001).

Verba and colleagues (Schlozman, and Brady, 1995), while combining the rational choice theory (Downs 1957), socioeconomic status modes (Verba and Nie 1972), and the mobilization model, built a civic voluntarism model to understand political participation. This model suggests that when citizens are asked to join political causes and have the necessary resources to do it, they participate. Resources include time, money, and cognitive abilities. In addition to these resources, internal political efficacy is an essential incentive for participation.

From the historical perspective, in the 1940s and 1950s, political participation was mainly defined as voting and participating in campaign activities (Campbell et al. 1960), which are the very basis of the conventional modes of participation. In the 1960s and 1970s, the borders of the political participation concept were enhanced, leading to community groups and direct interaction between citizens and officials (Verba and Nie 1972). Also, through mass protests, the interests and opinions of the individuals became increasingly important matters (Barnes and Kaase 1979). Gradually, nonconventional modes of participation have increased, and political participation began to include both political and non-political, both public and private activities, while encouraging the volunteering and social engagement in the 1990s (Putnam 2000; Norris 2001).

In the 21st century, the new forms of political participation modes tend to function in less hierarchical mechanisms (Putnam 2000). Also as opposed to 20th-century Progressive reformers defending the hierarchical and rule-based organizations to prevent political corruption (Skowronek 1982), new reformers are more likely to focus on less hierarchical

governmental organizations to enhance the responsiveness of officials and increase the number of citizens participating in the policy-making processes (Peters 1997).

In this study, we underline that political participation is an urge to do, say, make, or prepare something regarding any issue that touches human life. It is a search for change, betterment, and making a difference, and sometimes, it is a struggle to maintain what is owned, whether it is employed in a conventional or nonconventional way.

2.2. Youth

In general, youth is seen as the stage in the life, it is defined and understood within the age limits; however, for this study it is important to describe the term with regard to their sociological connotations. One side of literature defines the term in reference to its biological structure (Marcues 1969, cited in Kentel 2005) underlying that youth is a socially constructed category in human life. It is constructed because it divides the adult, the previous generation from itself; and has its own characteristics on the base of the aging on the basis of socioeconomic factors. On the other hand, Bourdieu (1980) holding a socioeconomic perspective, claims that the category of the youth can be seen within the class system as a reference to different social classes; and they can be seen as the tools for the fight against inequalities (cited in Kentel 2005: 13).

The common characteristic of the term “youth” is that each and every generation has the desire to be different from the previous ones, they underline their differences and make their own distinct characteristics; and this is highly related to cultural and socioeconomic developments (cited in Kentel 2005: 13). So, it can be suggested that youth, as a category cannot be seen the homogenous entity, but as heterogonous groups of young people.

The crucial issue here is the difficulty to set a definite conceptualization of the term “youth” because the young people in different parts of the world have different characteristics, expectations and experience different circumstances. The young people from different societies do not share the same attributes, and expect same things for themselves. Cultural constructions seem to be the most important issue at that point (Arias and Hernández 2007).

Within the scope of this research, the youth is studied as a generation, as a reference to Kentel, and we kept in mind that the youth is based on the cultural constructions as mentioned by Fierro Arias and Moreno Hernández. So, we used the youth as a generation within the specific cultural norms in the current Turkey.

2.3. Youth political participation in Turkey

Until the late 1940s, political participation was limited in the country. After 1923, the CHP's main priority was to use education as a tool to spread Atatürk's modernization program. The mobilization of the periphery was guaranteed with the competitive political-party system (Sayarı 1975). In the 1960s, youth transformed its dynamics, and especially with the 1968 generation, similarly to in other parts of the world. According to Mardin (2008: 260), this situation was the result of a generational clash. From the beginning of the 1950s, the youth started to build their life according to the influence of new types of lifestyle. In the 1960s, they became the rebels against the system itself; they had the desire to change the world and to be heard (Lüküslü 2005: 32). The Turkish young people in the 1970s were no longer the guardians of the state; they started to rebel against it. However, the young people still saw themselves as the guardians of the state, which was no longer governed by legitimate administrators. In the 1970s, young people have been marginalized under two ideologies and labeled as rightist and leftists. While the conflict between these young people increased, they were portrayed as a threat to the national interest (Neyzi 2001: 419).

In 1980, the coup d'état took place to end the confrontations between rightist and leftist groups. Following this era, to promote young people as "apolitical consumers of a global market", neo-liberal policies have been encouraged (Lüküslü 2005: 33). As Neyzi (2001) underlines, the post-1980s opened new ways for youth in the form of the rise of the new media. She underlines that young people became more and more apolitical consumers, but they learned how to use the media to express themselves.

Since 2012, Erdoğan's government underlined that they aimed to create a pious generation. The ideal youth for the government was 'an ideal young person carrying a computer in one hand and a Quran in the other' (cited in Lüküslü 2016). Starting in the 1990s, young people experienced a clash between secularism and religion, statism, and liberalism, freedom and authoritarianism, nationalism and universalism, and politicism and apoliticism, resulting in the different identities. So, the postmodern, heterogenic new youth emerged (Kentel 2005: 16-17).

3. Hypotheses and method

After examining the literature, the main hypothesis is formulated as; there are seven underlying motivations for young people to participate in political parties and civil society in Turkey, namely, citizenship, social capital, personal interests, family, social media, party identity/leader, and

social environment, and their importance changes in the cases of youth branches and civil society.

Based on this hypothesis, we formulated seven sub-hypotheses for analyzing the motivations;

1. Citizenship: young people participating in youth branches of political parties show the characteristics of dutiful citizens and subject-oriented citizens; while young members of civil society show the characteristics of actualizing citizens and participant citizens.

2. Social capital: young members of political parties tend to gain something from membership (mostly material); young members of civil society do not necessarily have this desire.

3. Personal interests: the main motivation of young members of political parties is self-efficacy and empowerment, while; young members of civil society are more inclined to adhere to social norms because of an internalized sense of duty over the community.

4. Family: family has a huge impact on young people of political parties; while the importance of familial influence is less significant for the participation of young people of civil society.

5. Social media: social media motivates young people to participate in political parties by seeing and reading about their activities while motivating young people to participate in civil society by encouraging civic duties.

6. Party identity/leadership: if young people trust the political system and its components, then they are more likely to engage in conventional forms of political participation. If they do not trust the political system, they are more likely to engage in civil society.

7. Social environment: the social environment and engagement of the people to that environment affects the young members of conventional forms of participation more than the young members of civil society.

To see the validity of our hypothesis, we formed semi-structured interviews with 14 questions and asked them to the executive members of the AK Party and CHP's youth branches and the executive members of GoFor (Gençlik Örgütleri Forumu) as the representative of civil society in Turkey. In total, we met with 30 participants (10 from each) from Ankara and İstanbul, and every interview lasted about 45 minutes. In these interviews, we used an audio recorder, and all the interviews have been transcribed manually. The content was analyzed with MaxQDA 2018 software. Our data is qualitative; based on transcription and observations in the field. We used the Interpretive Research method to understand the data.

We chose AK Party, CHP, and GoFor because when we started to study in this subject at the end of 2016, the power party in the parliament was AK Party, and the main opposition party was CHP. Because we wanted to see differences and commonalities in the motivations for political participation, it seemed convenient to focus on the power party and the main opposition party. As civil society, we chose to study GoFor because it is the common platform for youth organizations to act together, and we believed that it would provide the diversity that we looked for in this study. The data was collected from May to September 2019.

The descriptive information of the interviewees are as follows; 16 members are unemployed while 14 are employed; 10 of the members are female while 20 are male; 2 of them are married while 28 are single; and 13 members do not have bachelor degree, while 17 members have a bachelor and graduate degree.

4. Results and discussion

4.1. Citizenship

According to Dalton (2008), citizenship norms, the norms that establish what we consider being a good citizen, predicting the types who choose to participate politically. Two citizenship characteristics have become prominent in literature; “dutiful” (Dalton 2008; Bennett 2007) and “engaged” (Dalton 2008) or “actualizing” (Bennett 2007). While dutiful citizens desire to participate in politics due to their sense of civic obligation, especially to the traditional institutions, actualizing citizenship (Bennett 2007) requires participants to be more active and assertive. They are both concerned for others. Engaged citizens (Dalton 2008) are similar to actualizing citizens; they both engage in activities that are not encouraged by government officials, such as rallying or boycotting.

When analyzing the members of GoFor, we observe that they all believe the conventional form of political participation is voting. They perceive voting as their chance to have a voice in politics and public matters. In that sense, they appear to be dutiful citizens (Dalton 2008), not actualizing citizens, as expected. By evaluating the young members of political parties, we find that they are showing the patterns of dutiful citizens, and subject and participant citizens; so, our assumption has gone beyond and covered the participant citizens as well.

4.2. Social capital

Social capital (Lin 2017: 8-12) is considered resource-engendering participation. The main idea behind this is that when the social network increases, the person can engage in more political participation (Verba et al. 1995: Chapter 5: Teorell 2003). Social capital, as a term, covers the

interrelated structural and cultural aspects; it is a key to democracy to work (Putnam 1995: 185). The main idea here is that if there is a lack of social capital in society, then it is unlikely for people to trust one another and feel isolated from the government and the society, which will lead to a decrease in political participation (Foley and Edwards 1996). In contrast, when people trust each other and build social networks, they are likely to develop political engagement.

Opportunities come in different forms; they may be in the form of capital, job opportunities, networking, or any other means. In the case of AK Party youth branches, it is mainly in the form of expecting something for the political future and expecting a place in the political arena. In the case of CHP, young people tend to appreciate meeting people in power or people who are influential in their line of work, and they do not mainly focus on their own political future. GoFor members do not really think about gaining something from the membership, but they appreciate the values and experiences gained by being part of civil society.

4.3. Personal interests

The basic motivations behind political participation can be categorized into two categories; the first is related to the personal needs and values that individuals care about, and the second one is about expressing the interests and opinions in the decision-making process. The former indicates the internal motivations for participation, while the latter indicates the instrumental motivations for participation. Thus, it would not be wrong to assume that the main motivations behind the conventional forms of political participation are self-efficacy, empowerment and the feeling that they can influence the decision-making process (Lilleker and Koc-Michalska 2017). Therefore, it would not be wrong to assume that conventional form of political participation is assumed to be driven by intrinsic motivations; it is related to feeling that they are contributing effectively to the decision-making process (Lilleker and Koc-Michalska 2017).

In general, it is accepted that political participation is rational. This means that when someone involves themselves in politics, s/he is expected to have goals, and s/he has calculated the costs and benefits of participation (for descriptions of rational choice models, see Aldrich 1993; Downs 1957; Jackman 1992; Opp 1989; Whiteley 1995). However, it is an accepted assumption that no interest can serve only one person; participation, by nature, contributes to the collective benefits, so it creates a problem of collective action (Verba and Nie 1972). There we come to the rational choice model, which suggests that one's effect on the voting result is so

small that the cost of voting would outweigh the benefits, resulting in one hesitating to vote.

However, in contrast to rational choice theory, a paradox of participation underlines that voting and other types of participation are common. Morton (1991) and Uhlaner (1989) use the term group approaches to solve the problem. Uhlaner states that the vote of the individual is an investment decision because when someone votes, it is the achievement of the group's leader that will allow this group to benefit from the elected politicians. Morton (1991) underlines that this can be accepted if only the voters are not forced to participate.

In the case of GoFor, one of the main motivations of young people seem to be changing something that they saw as problematic. The incentive behind political participation can be traced to social norms due to an internalized sense of duty to the community. Also, these young members tend to use participation as a tool for socialization and networking, not for the purpose of economic interests but for personal development.

In both cases, conventional and nonconventional political participation, young people seem to have selective incentives to participate (Finkel and Opp, 1991). They don't act based on economic incentives but want to be beneficial and useful to the society that they live in.

4.4. Family

Putnam (1993) underlines that if there is a strong family tie; there is an increased chance for distrust of the government and authority in general. The author argues that this type of behavior is transferrable to the young generations, leading the way to the creation of trust only in the family. It is argued that if the family ties are strong, political participation and trust are low (Alesina and Giuliano 2011: 2-3).

As explained by Flanagan, Bowes, Jonsson, Csapo, and Sheblanova, 1998, Flanagan and Tucker, 1999, if the parents are involved in such activities, it is clearly the driving force for their children. Also, based on the interviews, it seems that if the parents have bad experiences related to the political scene, their children tend to become members of the civil society organizations rather than political parties.

So, in both cases, conventional and nonconventional forms of political participation in Turkey, it is evident that the family, and its views regarding the political arena, influence the choices of the young people, making them more motivated to become active members of a political party or a civil society.

4.5. Social media

Due to the widespread usage of smartphones and development in digital media, it seems like young people have been gaining participation skills and becoming increasingly knowledgeable in the political arena, as mentioned by Quintelier and Vissers, 2008; Smith, Schlozman, Verba, and Brady, 2009. By reducing the costs of participation, social media opened the information open to all; thus, it can be suggested that young people now understand the risks and gains coming from social media and act accordingly. As in the case of GoFor, although they use social media to motivate people by sharing their work to impress them, they show some reluctance to become more political in social media. Unlike them, young people in political parties are more open to sharing their political views and using social media as a tool to recruit new members.

However, what we see here is that people already engaged in political issues are the ones visiting the political sites; as a voluntaristic perspective states, political participation guides the use of technology. Online political participation mirrors offline political participation, so people will not change their political participation just because new opportunities have been created. This idea fits the idea of reinforcement (Kraemer et al. 1989): the ones that visit political party websites will mostly be the same ones that attend political meetings and party congresses. There are exceptions to this, of course, but seeing and reading about political issues or things that have a direct impact on their life does not guarantee the political involvement of young people.

4.6. Party identity/ leader

The relationship between politics and trust is one of the most studied issues in politics. Distrust in politics and politicians is one of the most common problems faced by contemporary democratic regimes. A lack of confidence in politicians and political institutions is the case, not only in Turkey but in the world's most developed countries. The sense of trust is primarily related to consistency. The more consistent a person or situation is, the more reliable it is (Bingöl 2009: 1-2).

The argument stating that there is a positive correlation between the level of trust in the system, the party and its leaders, and political participation is called the Rainmaker Effect. Putnam, on this point, suggests that trust means something; trust towards a system shows trust in conventional participatory actions.

Trust in institutions, and the system in general, results in high engagement in conventional forms of political participation (e.g. Uslander and Brown 2005), while mistrust enhances nonconventional forms of

participation (Citrin and Luks 2001; Gamson 1968 as cited in Mannarini, Legittimo, and Talò 2008: 108-109).

It can be seen in the cases of both the party in power and the main opposition party. The main difference between these parties, however, lies in the people whom they trust. Most of the AK Party's young members show their belief and trust in the current or the past party leaders, while young members of CHP are more likely to show their belief and trust in the local candidates. However, unlike in the case of the AK Party, young members of CHP are more unsatisfied and feel less included within the party, causing some resentment. In the case of GoFor, members do not show any trust towards the current political system, political leaders, and the political parties in general.

4.7. Social environment

The social environment is one of the motivators for political participation. It has the potential to turn its norms into social obligations. People tend to behave within these pre-given norms to adopt and establish a place in the group. For example, as indicated, high social status leads the way to high political participation, so if you are in a high social status environment, then it is expected for you to feel inclined to participate in politics (Huckfeldt 1979: 580-581).

Socially constructed and individual-based participation is affected by the social environment, even if people chose to discuss the political matters with the one sharing the same ideals or political stand or not, they made an effect on their participation (Kenny 1992). Social environment matters when it comes to political participation because people tend to imitate the people around them.

Social environment matters when it comes to political participation in both AK Party, CHP and GoFor because people tend to behave like the people around them. The desire of humans to portray themselves in the online and offline social environment leads them to create a political identity as well. This portrayal, especially in online arenas, can pressure them to act in an effective way and to be part of political participation (Bond et al. 2017).

5. Comparison of the cases

Based on the answers and tendencies of young people, this study aims to see the basic similarities and the differences among and between the youth branches of the AK Party, CHP, and GoFor. The frequency analysis of the results is designed, with the help of MaxQDA, to see these similarities and differences in a clear way. As we can see in Table 1.1,

based on the answers of 30 young members of conventional and nonconventional forms of political participation, personal interests and social media are the most influential motivations. They are followed by party identity, citizenship, family, and social environment. The young members show little interest in social capital.

Table 1.1 *Frequency Analysis: AK Party, CHP, and GoFor*

	Frequency	%
Personal Interest	82	20.87
Social Media	75	19.08
Party Identity/Leadership	62	15.78
Citizenship (belonging to a community)	61	15.52
Family	43	10.94
Social Environment	42	10.69
Social Capital	28	7.12
TOTAL	393	100.00

Table 1.2 shows the basic motivations of the young members of the AK Party. Party identity stands as the most influential motivation, while social capital is the least influential one. Although social media is listed as the second motivation that young people have, we originally expected social media's influence would be much greater than the results supported.

Table 1.2 *Frequency Analysis: AK Party*

	Frequency	%
Party Identity/Leadership	31	22.14
Social Media	27	19.29
Personal Interest	22	15.71
Citizenship (belonging to a community)	20	14.29
Family	16	11.43
Social Environment	14	10.00
Social Capital	10	7.14
TOTAL	140	100.00

In the case of CHP, what we see is that the young members seem to give the same importance to personal interests and social media, followed by citizenship, party identity, social environment, family, and social

capital. The interesting point here is that, although we were expecting the influences of social media would be much higher, personal interests are as influential in terms of motivation as social media. By personal interests, however, one should understand the opportunities and both material and civic gains they get via being a member of the political party.

Table 1.3 *Frequency Analysis: CHP*

	Frequency	%
Personal Interest	27	19.85
Social Media	25	18.38
Citizenship (belonging to a community)	24	17.65
Party Identity/Leadership	22	16.18
Social Environment	17	12.50
Family	15	11.03
Social Capital	6	4.41
TOTAL	136	100.00

In the case of GoFor, we can say that they are mostly motivated through personal interests, covering the interest areas and gains expected from meeting with many leaders and influencers of the civil society and political institutions. In terms of civil society, our case, GoFor, showed that as Edwards underlines, young members present themselves as a “force for good and fuel for change in the practices of states and business, one that motivates people to raise their voices in the public sphere (2009: 125).”

Table 1.4 *Frequency Analysis: GoFor*

	Frequency	%
Personal Interest	33	28.21
Social Media	23	19.66
Citizenship (belonging to a community)	18	15.38
Social Environment	12	10.26
Social Capital	12	10.26
Family	11	9.40
Party Identity/Leadership	8	6.84
TOTAL	117	100.00

When looking at the frequency analysis of the political parties (Table 1.5), it reveals that the young members of political parties are affected mostly by party identity/leadership and social media at a high rate, while social capital seems to be the least influential motivation among the members.

Table 1.5 *Frequency Analysis: Political Parties*

	Frequency	%
Party Identity/Leadership	53	19.20
Social Media	52	18.84
Personal Interest	49	17.75
Citizenship (belonging to a community)	44	15.94
Family	31	11.23
Social Environment	31	11.23
Social Capital	16	5.80
TOTAL	276	100.00

Table 1.6 shows the comparison of the motivations of youth members of political parties, and GoFor, and reveals that party identity is the leading motivation for the young members of AK Party, while it is personal interest in the case of CHP and GoFor. For political parties, social capital seems to be the least chosen motivation, while it is the social environment in the case of GoFor.

Table 1.6 *Frequency Analysis: Comparison of AK Party, CHP, and GoFor*

	GoFor	CHP	AK Party	Total
Party Identity/Leadership	8	22	31	61
Social Capital	12	6	10	28
Citizenship (belonging to a community)	18	24	20	62
Personal Interest	33	27	22	82
Family	12	15	16	43
Social Media	23	25	27	75
Social Environment	11	17	14	42
TOTAL	117	136	140	393
N = Documents	10	10	10	30

6. Conclusion

Based on the literature review and the field research, the findings of the research are formulated as:

1. Young members of both AK Party and CHP show the characteristics of dutiful citizens and subject and participant citizens as expected. However, as contradict to our hypothesis, young members of civil society also carry the characteristics of dutiful citizens, not actualizing citizens and show the participant citizen's features.

2. Young members of AK Party and CHP both expect to gain something from the participation, while AK Party members are mostly motivated to find themselves a place in the political arena; members of CHP are mostly motivated to meet people in power and share experiences and gain knowledge. As expected, members of GoFor do not seek to gain something, but they appreciate the experience and values gained.

3. Young members of political parties underline that their main concern is to express themselves, whether it changes something or not. Their main motivation is not the self-efficacy and empowerment. Young members of GoFor tend to use participation as a tool for socialization and networking, not for the purpose of economic interests, but for personal development. Both the members of conventional and nonconventional forms of political participation show an internalized sense of duty over the community.

4. Unlike our hypothesis on GoFor, for both cases, conventional and nonconventional forms of political participation, it is seen that the family and its views regarding the political arena influence the choices of the young people, making them more motivated to become active members of political parties or civil society.

5. Both in the case of AK Party and CHP, and GoFor, it is seen that seeing and reading about the political issues or the things that have a direct impact on young members' lives does not guarantee the involvement of young people. However, what we see here is that people already engaged in political issues are the ones visiting the political sites; as a voluntaristic perspective states, political participation guides the use of technology. Online political participation mirrors offline political participation.

6. As expected, in the case of AK Party and CHP, young members show trust to the leaders, candidates, and ideology. In the case of GoFor, members do not display any trust towards the current political system, political leaders and the political parties in general.

7. It seems like, especially in the case of political parties, social networks and the social environment make young people think and act more on political engagement. In the case of GoFor, it is mostly the personal experiences, rather than the push from friends, which seems to be

a more important factor that motivates them to become part of the civil society.

We also see in the field research that the young members are all aware of the political parties' hierarchical structure, but they do not tend to challenge it; they accept it and know their position in the hierarchy. The structure of the GoFor is looser than the political parties, and the members always feel included in the process.

According to our research, as opposed to what was underlined by Newman (2005), we can say that the state does not seem to move from (paternalistic) provider to (participative) enabler in the eyes of the young people in Turkey, and it continues its impact on the young citizens. So, the patterns of the political participation change because the needs of the time and the policies of the state change.

We argue that young members of political parties and civil society believe in the political system in Turkey. They have expectations for their future, and have trust towards the political elites for their future. Despite some critics, they believe in democracy and its mechanisms to function well for the improvement of the society. So, there is a need for the inclusive youth policies engage them into the political arena. To do so, firstly the political parties should give more space and opportunity to young members to express their visions on society.

Reference list

- Alesina, Alberto, and Paola Giuliano (2011). "Family ties and political participation." *Journal of the European Economic Association* 9.5: 817-839.
- Barnes, Samuel H., et al (1979). *Political action: Mass participation in five western democracies*. Beverley Hills, CA: Sage.
- Bennett, W. Lance. (2007). Civic learning in changing democracies: Challenges for citizenship and civic education. *Young citizens and new media*. London, UK: Routledge.
- Bingöl, Yılmaz (2009). Siyaset ve Güven İlişkisi: Bingöl İli Örneğinde 1950-2007 Genel Seçimleri Üzerine Karşılaştırmalı Bir Analiz. *Kocaeli Üniversitesi Sosyal Bilimler Dergisi*, (17), 1-27.
- Bond, Robert M., et al. (2017). Social endorsement cues and political participation. *Political Communication*, 34(2), 261-281.
- Bourdieu, Pierre (1980). *The Logic of Practice*. Stanford, CA: Stanford University Press.

- Campbell, Angus, et al. (1960). *The American Voter*. New York: Wiley.
- Caymaz, Birol (2015). Mücadele alanı olarak parti gençlik kolları: AKP gençlik kolları ve Ülkü Ocakları'nda gençlik [Youth branches of political parties as a space for struggle]. *İletişim* 22: 31–62.
- Citrin, Jack, and Samantha Luks (2001). *Political trust revisited: Déjà vu all over again? What is it about government that Americans dislike*, 9-27.
- Dalton, Russell J. (2008). Citizenship norms and the expansion of political participation. *Political Studies*, 56(1), 76–98. <https://doi.org/10.1111/j.1467-9248.2007.00718.x>
- Downs, Anthony (1957). An economic theory of political action in a democracy. *Journal of political economy*, 65(2), 135-150.
- Fierro Arias, Daniel, and Amparo Moreno Hernández (2007). Emerging adulthood in Mexican and Spanish youth: Theories and realities. *Journal of Adolescent Research*, 22(5), 476-503.
- Finkel, Steven E., and Karl-Dieter Opp (1991). Party identification and participation in collective political action. *The Journal of Politics*, 53(2), 339-371.
- Flanagan, Constance A., et al. (1998). Ties that bind: Correlates of adolescents' civic commitments in seven countries. *Journal of social issues*, 54(3), 457-475.
- Flanagan, Constance A., and Corinna Jenkins Tucker (1999). Adolescents' explanations for political issues: Concordance with their views of self and society. *Developmental Psychology*, 35(5), 1198.
- Foley, Michael W., and Bob Edwards (1996). The paradox of civil society. *Journal of democracy*, 7(3), 38-52.
- Huckfeldt, R. Robert (1979). "Political participation and the neighborhood social context." *American Journal of Political Science*: 579-592.
- Inglehart, Ronald (1977). *The silent revolution: Changing values and political styles among Western publics*. Princeton, NJ: Princeton University Press.
- Inglehart, Ronald (1990). *Values, ideology, and cognitive mobilization in new social movements* (pp. 43-66). Taylor & Francis, Boca Raton.
- Kenny, Christopher B. (1992). Political participation and effects from the social environment. *American Journal of Political Science*, 259-267.

- Kentel, Ferhat (2005). Türkiye'de genç olmak: konformizm ya da siyasetin yeniden inşası. *Birikim*, 196: 11–17.
- Kraemer, Kenneth L., et al. (1989) Management Information Systems: Change and Control in Organizational Computing, JosseyBass Publishers, San Francisco.
- Lilleker, Darren G., and Karolina Koc-Michalska (2017). What drives political participation? Motivations and mobilization in a digital age. *Political Communication*, 34(1), 21-43.
- Lin, Nan (2017). Building a network theory of social capital. In *Social capital* (pp. 3-28). Routledge.
- Lüküslü, G. Demet (2005). Constructors and constructed: youth as a political actor in modernising Turkey. *Revisiting youth political participation*, 29.
- Lüküslü, Demet (2016). Creating a pious generation: youth and education policies of the AKP in Turkey. *Southeast European and Black Sea Studies*, 16(4), 637-649.
- Mannarini, Terri, Monica Legittimo, and Cosimo Talò (2008). Determinants of Social and Political Participation among youth. A preliminary study. *Psicologia Política*, 36, 95–117.
- Mardin, Şerif (2008). Türkiye’de Gençlik ve Şiddet, In M. Türköne & T. Önder (Der.) *Türk Modernleşmesi - Makaleler 4* (pp.249-288). İstanbul: İletişim.
- Morton, Rebecca B. (1991). Groups in rational turnout models. *American Journal of Political Science*, 758-776.
- Newman, Janet (2005). Participative governance and the remaking of the public sphere. *Remaking governance: Peoples, politics and the public sphere*, 119-138.
- Neyzi, Leyla (2001). Object or Subject? The Paradox of “Youth” in Turkey. *International Journal of Middle Eastern Studies*, 33, 411-432.
- Norris, Pippa (2001). *Digital divide: Civic engagement, information poverty, and the Internet worldwide*. Cambridge University Press.
- Norris, Pippa (2004). *Electoral engineering: Voting rules and political behavior*. Cambridge university press.
- Quintelier, Ellen, and Sara Vissers (2008). The effect of Internet use on political participation: An analysis of survey results for 16-year-olds in Belgium. *Social Science Computer Review*, 26(4), 411-427.

- Peters, B. Guy (1997). Policy transfers between governments: the case of administrative reforms. *West European politics*, 20: 71–88.
- Putnam, Robert (1993). The prosperous community: Social capital and public life. *The american prospect*, 13(Spring), Vol. 4. Available online: <http://www.prospect.org/print/vol/13> (accessed 7 April 2013).
- Putnam, Robert D. (1995). Tuning in, tuning out: The strange disappearance of social capital in America. *PS: Political science & politics*, 28(4), 664-683.
- Putnam, Robert D. (2000). *Bowling alone: The collapse and revival of American community*. Simon and schuster.
- Sayarı, Sabri (1975). Some notes on the beginnings of mass political... - Google Scholar. In *Political participation in Turkey: historical background and present problems*. İstanbul: Boğaziçi University Publications.
- Skowronek, Stephen (1982). *Building a new American state: The expansion of national administrative capacities, 1877-1920*. Cambridge University Press.
- Smith, Aaron, et al. (2009). *The Internet and civic engagement*. Washington, DC: Pew Internet & American Life Project.
- Teorell, Jan (2003). Linking social capital to political Participation: Voluntary associations and networks of recruitment in Sweden 1. *Scandinavian Political Studies*, 26(1), 49-66.
- Uhlener, Carole Jean (1989). “Relational goods” and participation: Incorporating sociability into a theory of rational action. *Public choice*, 62(3), 253-285.
- Uslaner, Eric M., and Mitchell Brown (2005). Inequality, trust, and civic engagement. *American politics research*, 33(6), 868-894.
- Van Deth, Jan W. (2001). Studying political participation: Towards a theory of everything? *European Consortium for Political Research*, (April), 1–19.
- Verba, Sidney, and Norman H. Nie (1972). *Participation in America* New York: Harper & Row.
- Verba, Sidney, Kay Lehman Schlozman, and Henry E. Brady (1995). *Voice and equality: Civic voluntarism in American politics*. Harvard University Press.

CHAPTER XI

12 SEPTEMBER 1980 MILITARY COUP AS AN EXCEPTIONAL STATE FORM

Asst. Prof. Dr. Rasim Berker BANK

Giresun University, Giresun-Turkey

e-mail:berkerberker@hotmail.com

Orcid.ID: 0000-0002-3292-9274

1. Introduction

The main problematic, which forms the subject of this study, is, based on the theoretical analyses developed by Nicos Poulantzas's relying on the class function assumed by the capitalist state-specific form of exceptional state in a given social formation determined by historical conditions, to understand the political, economic and ideological consequences of the radical change experienced in the relations between the state and society formed after the military intervention of September 12.

In the study, firstly, the theoretical analyses developed by N. Poulantzas regarding the form of exceptional state are addressed. Thus, after the unique aspects of Poulantzas's views are put forward, within the framework of this theoretical model, the military coup of September 12 is discussed. Secondly, it is shown how the state became autonomous against all classes with the staging of the military coup, and the organization of the hegemony of the dominant classes was organized under the pretense of neutrality was realized thanks to the military branch of the state as the repressive apparatus. Thirdly, it is emphasized how the ideological apparatus of the state became organized under the Turkish-Islam synthesis. Fourthly, the reasons for the expansion of the effect of the military apparatus of the state as a pressure tool on all other apparatus are discussed, including a series of political developments that were experienced prior to the military coup. In the fifth place, the new legal regulations made in the law apparatus as one of the ideological apparatus of the Capitalist State in order to provide a legitimate ground for the expanding intervention of the state while it was gaining autonomy against all classes are analyzed, and the political consequences of prohibiting the activities of all political parties that were not in compliance with the dominant ideology, the limitations of which

were determined by the Turkish-Islam synthesis, in terms of representation are discussed.

Consequently, this study is not a research that deals with all the aspects of 12 September 1980 military coup. Based on the model developed by Nicos Poulantzas regarding the capitalist state-specific form of exceptional state, this study examines the political, economic and ideological consequences brought about by the military intervention of September 12 within the framework of the reorganization of the relationship between the state (pressure apparatus and ideological apparatus) and the society.

2. Exceptional State Form

According to Poulantzas, there are different forms of state specific to the capitalist state form. There are mainly classified as ordinary and exceptional forms of state. In both cases, the basic functions of these different forms of state are to ensure the "unity" and "coherence" of the society, and to organize the hegemony under the dominance of any class fraction among the dominant classes that form the power block. This active role the Capitalist State assumes on behalf of dominant classes exposes its class characteristics. This intervention of the Capitalist State gains a different quality under the specific outlook that the ordinary and exceptional forms of state take on. The Capitalist State fulfills its function of organizing the hegemony on behalf of dominant classes not only against the power block, but also thanks to the relatively autonomous quality it acquires against the dependent classes. Hegemony has a dual content which is formed by pressure and consent dialectics. No state can sustain the existence of its political power only by applying pressure; social consent is required in this regard. Therefore, in the establishment process of the hegemony of the dominant class, social consent occupies a determinant space. Thanks to its relatively autonomous quality it has gained against all classes, the Capitalist State assumes a look of neutrality, and fulfills its function of organizing the power block and building the hegemony. In this process, the neutral look it has assumed enables it to get consent in the eyes of large masses.

To N. Poulantzas, whether it be private or public, all institutions constitute the ideological apparatus of the state, no matter under what form of state they are organized. Regardless of the form of state they are organized under, the basic functions of these apparatus are to ensure the "unity" and "coherence" of the society, and to establish the hegemony of

one of the classes among the dominant class fractions that form the power block (Poulantzas, 1974: 315). Accordingly, the distinction between totalitarian state and pluralist democratic state cannot be explained based on whether the institutions between the civil society and the state are autonomous. To him, the distinction made between the public and private status based on whether the ideological apparatus functioning under the totalitarian state and the pluralist democratic state are autonomous or not is basically shaped depending on the regulations made in the field of law. The most significant consequence brought about by the radical change experienced in state apparatus under the exceptional state form is the limitation of the autonomy of the ideological apparatus and expansion of the state's activity area (Poulantzas, 1974: 316).

Based on the theoretical analyses N. Poulantzas developed regarding the form of exceptional state, we can examine how the state intervened in the economic area thanks to the relatively autonomous quality it gained with the September 12 military coup on behalf of all classes in appearance, but in fact in order to organize the political power of dominant classes.

3. The State Gaining Autonomy and Organization of the Power Block

Exceptional state is a form of state unique to the Capitalist State form. The forms of state that are unique to the Capitalist State "form" create their specific "regime" forms. Hence, the various appearances that the exceptional state "form" assumes as fascism, Bonapartism, and military dictatorship can be expressed as specific "regime" forms. The distinctive feature of the Capitalist State form from other forms of state is not only the relatively autonomous separation of economy and politics from each other, but also its gaining an autonomous quality in the face of dominant classes and fractions. In the imperialist stage, the specific intervention forms that exceptional state types assume, which corresponds to a political crisis, occupy a significant place. Within this framework, the Exceptional State form characteristically intervenes in the economy in order to adapt the current situation to new conditions which it is in. The distinguishing feature of the exceptional state form from the ordinary state form is not the degree of the intervention but the specific form of this intervention. It is highly important in terms of the state gaining a neutral appearance and fulfilling its class-related function. As a matter of fact, reorganization of the relations of classes that form the power block and establishment of the hegemony of the dominant class fraction as a consequence of political

crisis are possible through the expansion of the state's autonomy (Poulantzas, 2004: 365).

The economic model of Turkey starting from the end of the first half of the 20th century based on agriculture and trade industry is replaced by an economic model based on the accumulation of industry capital oriented towards the domestic market in the 1960s. This model is an import substitution model in which technology, investment goods and inputs are imported, and durable goods are produced domestically. As domestic market oriented production and protectionism restricted export activity, the capital could not obtain the foreign exchange required, and foreign debt was becoming inevitable. Thus, the global crisis of capitalism deepening along with the political crisis would play an important role in the process leading to the September 12 military coup (Ozan, 2015: 661).

The new economic order started in the USA in the late 1970s and early 1980s with the action of the 'conservatives' 'to cleanse the market economy from public interventions'. This cleansing action marked the beginning of the new economy that defines the policies of President Reagan's term aimed at creating a more liberalized world economy (Kazgan, 2009: 91). In the aftermath of the two oil crises experienced in the 1970s, the countries that sustain their industrialization with import substitution model were faced with a severe inflation and balance of payments crisis. In 1978-1979, when Turkey was faced with an economic crisis, the Republican People's Party (CHP) was in power with the support of Democrat Party (DP) and Trust Party (GP). The measures taken by this government could not prevent long queues, and the government started to search for making an agreement of stability with IMF. In April, an agreement was reached with IMF (International Monetary Fund), and in order to overcome the debt crisis, side agreements were made. However, IMF suspended the financial support agreement made on the ground that the expected performance could not be achieved in terms of financial discipline. In June, the Turkish Lira was devalued, and a new financial support agreement was signed with the IMF; nevertheless, the unstable political environment Turkey was in did not allow to apply austerity policies. Claiming that a collective labor agreement was signed at Çukobirlik, IMF sent a letter of intention to the government in which it declared that the agreement was suspended on the grounds that commitments were not fulfilled (Tekeli, 2017: 9). When the government was not successful in the interim selection, it resigned.

Economic problem always manifests itself as a political problem in the historical process (Haluk, 2008). 12 September 1980 military coup is a hegemony crisis that emerged in the power block as a result of the inability of the dominant class fraction to establish its political class dominance. The dominant class needed the executive power to be mobilized in order for its hegemony in crisis to be organized.

While 27 May 1960 military coup was essentially aimed at solving a conflict among dominant classes, 12 September 1980 military coup targeted to solve the conflict between the dominant classes and the labor class (Mucek, 2019: 421). 24 January 1980 decisions were the first comprehensive program of a big transformation process. The step that complemented these decisions was the September 12 military coup. After these comprehensive and tightly interconnected economic attacks, there were literally no barriers in front of the monopoly capital. In the wake of the September 12 military coup, the monopoly capital reorganized the dominant classes alliance (oligarchy) which was made up of big trade capital and pre-capitalist elements. In the reorganization process, the hegemony of monopoly capital within the dominant classes alliance was reinforced. The monopoly capital gaining weight was realized as a result of its settlement with the traditional usurer merchant and land owner powers it made alliance with and the illegal speculative trade capital as well. Non-monopoly segments of the capital were included in this settlement. Upon the ending of the import substitution process, sharing of the accumulation and credit sources continued to be the essential problem despite the agreement among all capital segments (Mucek, 2019: 422-3). That is, the monopoly capital increasing its weight within the "power block" at a great degree happens as a result of its settlement with especially illegal big trade capital and pre-capitalist rural hegemons. We should also add to this settlement the antagonism within the monopoly capital itself and non-monopoly capital. The monopoly capital almost agreed on the fact that the import substitution strategy was stuck, and that a model oriented towards export should be adopted. Although parties do not have many conflicts on the accumulation model oriented towards, the conflict is sustained in order to adapt to the conditions of the new model. This was especially evident in the race to dominate credit sources more (Sonmez, 1986: 180-1).

The minority government under the prime ministry of Suleyman Demirel announced a comprehensive and unexpectedly radical stability and liberalization program and implemented it on 24 January 1980.

Demirel's government did not have the political support required for the implementation of the new program, yet the military administration that came to power after the coup in September also adopted this program (Pamuk, 2020: 285). In order to both set the financial balances again and to ensure competitive edge in international markets, reducing the wages and the income of agricultural producers was among the priority targets of the new program. It was impossible to implement these policies in defiance of the labor class. Thus, applications that aimed to remove social rights were met with the resistance of labor organizations. Strikes, strike actions and disagreements in the workplace accelerated especially in the summer months of 1980. The applications of 24 January package regarding the workers and wages could only be implemented under the military administration. There was a consensus in the military administration that the economic decisions taken before the military coup would be implemented by Turgut Ozal (Arcayurek, 1986: 401). Thus, Ozal would be appointed as the minister with full responsibility of economy.

Prior to the 24 January economic decisions, external pressures claiming that the Turkish economy should definitely be opened to foreign markets under the rules of free market conditions started to increase. The reason for this was that if the foreign debt after 1979 was not postponed, the current debt could not be paid, and in this context, it would be impossible to manage the economy as new loans could not be received. Given a series of political developments experienced in the international arena, it was not possible to sacrifice Turkey. Under such conditions, the bargaining chances in terms of IMF, the World Bank, and OECD accepting Turkey's demands were increased (Kazgan, 2012: 169). Another issue that the USA put emphasis on other than economy was that the USA needed Turkey to be in harmony with the West so as to prevent its interests from being harmed in the region which was being shaped under new power balances that were created after the Iranian Revolution (Ahmad, 2014: 217). The occupation of Afghanistan by the Soviet Union on 26 December 1979, which was considered as the beginning of a new Cold War from the perspective of the West, increased the strategic importance of Turkey (Ahmad, 2015: 363).

After 1980, it was aimed to adopt a regime based on growth through export instead of import substitution policies. The realization of these economy policies depended on the realization of a series of reforms. What was planned was that the capital owners would use the profit they would make from export in new investments, and in this way, the continuous

growth trend in the export volume and in general economy would be maintained. The accumulated capital would find the opportunity to gain value in the external markets, and the clogging experienced by the domestically oriented capital accumulation would be overcome (Saracoglu, 2015: 752). While on one hand continuously repressed workers' wages and reduced social rights so as to encourage export kept profitability at a high level, on the other hand, state support for investors and especially exporters encouraged Turkish capital owners to get involved in new investment areas more (Saracoglu, 2015: 758). In addition, all activities of labor organizations were prohibited nationwide. In order to suppress workers' wages, collective labor agreements were taken under control (Tekeli, 2017: 19). The principles regarding employment security were limited. The suggestion to exclude minimum wage from taxation was refused. Wage increases in PEOs (KITs) were restrained (Senses, 2017: 61).

The implementation of the 24 January program started with a series of measures. As a measure to solve balance of payments, the value of the Turkish Lira against US dollar was depreciated from 47 to 70 liras. As of May 1981, foreign exchange rates started to be updated daily. Furthermore, in order to encourage export, various supports such as foreign exchange and tax were provided, and important liberalizations were realized in trade and payment regimes (Pamuk, 2020: 285-6). It was envisaged that the formation of not only the value of foreign exchange but also the formation of other prices would be left to the market and supply and demand balance, and public subsidies on many goods would be removed (Cavdar, 2008: 258). In domestic markets, price controls were removed, the prices of the products of public economic organization were increased at high rates in order to improve public finance, and public subsidies or supports in many areas were cancelled. Regarding interest rates, a more liberal regime was adopted, and additional measures were taken in order to encourage foreign capital flow (Pamuk, 2020).

With the September 12 regime, highly urgent implementations were realized in order to achieve the targets determined in the 24 January economic program. In accordance with liberalization rationale, daily foreign exchange rates adjustments and intense incentives laid the groundwork for structural transformation (Mucek, 2009: 91). The incentives provided for the monopoly capital were in three forms: (a) incentives given at the level of investment, (b) incentives provided during business, (c) incentive suggestions in export. Other complementary

applications that follow this economic program were: (a) continuous devaluations, (b) price regulations, (c) new loan opportunities and debt postponement, (d) freeing interest rates, (e) new incentives for foreign investment, (f) incentive that encourage and facilitate exports (g) organizational changes, (h) national residence decree (Mucek, 2009: 92-3).

After the establishment of the military administration, labor unions' activities were forbidden, and the income levels of workers decreased considerably. Again, during the military administration period, when the state's support purchases and support price policies were changed, the prices of agricultural products receded at a high rate. Instead of the interventionist and inward-oriented model which had been followed since the 1930s, a market based and outward-oriented economy became more concrete with the 1980 military intervention. Thus, planned industrialization programs were ended (Mucek, 2009: 95).

The Capitalist State organizes the power block thanks to the relative autonomy it has gained against the dominant and dependent classes, while it makes the ideology of the dominant class among the state's ideological apparatus the dominant one. In the following pages, it is examined how the Turkish-Islam ideology was organized within the ideological apparatus with the September 12 military coup.

4. Reorganization of Ideological Apparatus

A series of changes are experienced in the reorganization of the relationship between the state's ideological apparatus and the pressure apparatus. The specific forms that exceptional state forms assume gain a different appearance at this point. The distinction between the two forms of state emerges in the exceptional state form. That is to say, while a distinction is made between private and public realized at the legal level under the ordinary state form, in the exceptional state form, the state's ideological apparatus are given a formal public appearance status. Thus, the autonomy of the state's ideological apparatus are either limited or completely removed (Poulantzas, 2004: 366). The purpose of restricting the ideological apparatus in the exceptional state form is to realize the reorganization of the power relations among classes and hegemony. The determinant role of the exceptional state form in the organization of the hegemony of the dominant class is realized in the form of (a) restricting the distribution of power between the apparatus, (b) a tight control of the

whole state system (ideological and pressure apparatus) by the apparatus controlled by the class trying to establish its own hegemony (Poulantzas, 2004: 367).

When the anticommunist reaction, which is a popular argument of each political crisis period, and the global economic developments experienced in the 1980s overlapped with the New Rightist values, the Rightist Kemalism gained a new content. The Rightist Kemalism not only affiliated with the economic solutions advocated by Ozal since the 1960s, but also leaned towards the idea of leaving the economic field to conservative groups. Appointment of T. Ozal to the wheels of the economy is the most striking indicator that the Turkish Armed Forces left its claims in the economic field, and that it considered the support of the nationalist conservatives vital in the anti-communist struggle. Empowerment of the executive power, and decreasing the determinant power of institutions such as The Constitutional Court and the Supreme Court especially on the rightist politics had the outlook of an authoritarian regime which was acceptable to the degree that it did not go to the extremes.

The leadership of September 12 considerably cooperated with the nationalist conservative elites not only in the economic and political fields but also in the cultural field. Although the rightist segments expressed their victimization in the post-coup period many times, about which they were right, the leading actors of this movement openly supported the Turkish-Islam idea which the coup represented (Ahmad, 2014b: 160). In the court where they were tried, one of the managers of Nationalist Movement Party (MHP), A. O. Guner declared "We are a political group who are in prison, but whose ideas are in power..., and in a letter addressed to K. Evren, A. Turkes openly supported the coup by writing "... [the coup] was a confirmation of the thoughts we have been trying to advocate in a different style (Bora, 2017: 316). This attitude of the leader cadre of MHP towards military coups was not something new. In a propaganda booklet in 1973, they expressed their support for the military intervention by declaring that the "Idealist Youth" handed on its duty to the honorable Armed Forces with the March 12 Memorandum (Agaogullari, 2013: 355). Therefore, the political attitude of MHP towards military coups was not surprising.

The main concerns of the junta leaders was the restructuring of the country in political and institutional terms. Among these targets determined, cleansing the society, especially the youth, from politics occupied a significant place. In order to choke the voice of all opposition

that may come from the left, the organizational activities of social democrats, revolutionists, labor unions, Peace Association, and even the members of Nuclear Disarmament movement were prohibited on the grounds that they were against the Turkish-Islam thought (Ahmad, 2017: 218). In the organized and effective conservative circles whose support was sought in the cultural dimension of restoration policies, Aydinlar Ocagi (Intellectual Society) had a significant place. Aydinlar Ocagi played important roles between right-wing parties in the formation of Nationalist Front governments to be established in the 1970s. The discomfort that the nationalist conservative felt against the communist ideology constituted the main ideological motivation for the support they gave to September 12 military intervention. These segments had a common political stance with September 12 Kemalists as long as the formal factors such as the state supervising the religion were not subjected to criticism. Giving an order to the society and the concern to keep the state at the top, which underlay this search that could go as far as building mosques in the Alevi villages on the axis of Sunni Islam, made the Junta members and nationalist conservatives converge at the same point (Aydin and Taskin, 2017: 342).

September 12 leadership kept a distance with not only Marxism based leftist organizations, but also with the Leftist Kemalist cadres, and they even held them responsible for many problems experienced. The interventionist cadre was not comfortable with the Leftist Kemalist segments being organized within the institutional structure of the state, and the ideological impact they created. Accordingly these cadres were considered responsible for the "damage" caused to Turkish Language Association (TDK), Turkish Historical Society (TTK), Turkish Radio and Television (TRT) and the universities. The concept of "freedom" preferred by the leftist interpreters of Kemalism was removed from the draft Constitution with a motion given on 16 August 1982 and replaced by the term "liberty." The motion was accepted by a great majority vote (Aydin and Taskin, 2017: 343).

The Presidential term of K. Evren was characterized by suppressing all types of social opposition in a bloody way, especially the leftist and idealist movements. With the 1982 Constitution, tutelage was institutionalized (Hur, 2020: 104). K. Evren and other leader cadre played an important role in the totemization and tabooing of Ataturk. This process manifested itself in many areas ranging from the establishment of Ataturk Culture, Language and History Higher Institution (AKDITYK) to the determining of the cadres of TRT and Higher Education Institution (YOK) (Aydin and

Taskin, 2017: 342). The intellectuals appointed to AKDITYK were chosen among the members of universities or faculties with a corporatist mentality. TDK and TTK established by Ataturk were reorganized according to the needs of the day, and some regulations were made for them to function in line with the establishment of organic bonds with the state and their establishment purposes (Aydin and Taskin, 2017: 343-4). AKDITYK, which was established in place of TDK and TTK after the coup, became the most important center of ideology production of the Turkish-Islam synthesis (Hur, 2020: 105-7) All these arrangements made in the ideological apparatus of the state were considered indispensable in terms of ensuring the security of the state.

It is evident that with the dominant ideology rebuilt in the aftermath of the coup, culture was no longer seen as a tool for building a nation, but considered from a national security perspective. With steps such as printing the simplified version of the Speech, the obligation to establish Ataturk's corner at schools, the obligation to hang Ataturk's photos in coffee houses, establishment of Ataturk Statute factory in Ankara, the appearance of laconic phrases that arguably belonged to Ataturk in public sphere, K. Evren making speeches pretending to be Ataturk, (and even his photos being taken looking out of the window of the train just like Ataturk), Kemalism was turned into a civilian religion after September 12 military coup.

In the following lines, it is examined how the pressure apparatus of the Capitalist State, thanks to the relative autonomy which the military branch gained against all classes, intervened gradually in the social and economic sphere through the social dynamics specific to the 1970s.

5. The Expansion of the Function of the Pressure Apparatus

In 1963, A Turkes returned to Turkey from India and started organization activities in the legal arena. Together with some of the 14 politicians sent to exile with himself, he took action to organize the racist nationalists who were engaged in some associations such as Anti-communist Struggle Associations, Nationalists Association, The National Turkish Student Union, Peace Associations and Turkish Homes, and some elements in Justice Party (AP) in a new party in 1965. In 1965, A. Turkes was able to enter the Republican Villagers and People Party (CKMP) as the General Inspector, and he took control of the party in a short time. In 1969, the name of CKMP was changed as Nationalist Movement Party

(MHP) (Ilsever, 2009: 43). Soon, the influence of Islamism started to be included in the discourse and symbol world of the party as an important component of popularization attack (can, 2017: 674). Thus, Turkish nationalists, who were scattered in various associations until that day, found the opportunity to organize in a political party. Turkes's next target would now be to increase his influence by performing activities in the military and other state institutions.

After A Turkes took control of CKMP, he put forth his plan to gather the extreme nationalist element in various reactionary associations under a single association. Within the scope of these targets, he took the control of some of the associations such as National Turkish Student Union (MTTB), Nationalists Association, Turkish Homes by applying pressure on them. After 1967, Nationalists Association was to be closed down, and Idealism Homes would be established instead (Ilsever, 2009: 44). On 29 February 1968, Young Idealist Organization centered in Adana started its activities. Their purpose was expressed as "to raise the youth with a nationalist spirit, and to struggle against destructive and separatist movements." In 1969, Idealism Homes Association merged with Idealism Homes that were active across Turkey and took the name of Idealism Homes Union (Parlar, 2008: 492). Turkes started to pronounce the necessity to establish commando camps that formed the backbone of paramilitary organizations as of 1967-68. Thus, the first commando camps started to be established in Izmir (Parlar, 2008: 493).

The Idealist Movement was trying to suppress the youth movement fed by leftist thought through pro-MHP commandos. In this process, they would get support from various right-wing parties. The youth movements that were on the rise across the country would get in a partial solidarity together with labor movements. The solidarity established among these dynamic segments of the society brings along socialist demands. On 15-16 June of 1970, the struggle of the working class reaches the summit in big cities. According to the government circles, "this is a rehearsal of a revolution." In the face of these developments, AP government declared a martial law (Birand, 2008: 198). This period of martial law had the appearance of a precursor of the dictatorial regime to be established after March 12.

The document titled *The General Principles of the Turkish Nationalist Social Doctrine - Dynamic Military Strategy* (Altaylı, 1969) was the document that best explained the ideological, political and economic fight

that MHP had pursued from the 1960s to 1980s, but it was also a part of the education provided in commando camps. In this document, the principles of National Socialism were clearly advocated as a model for economic development (1969: 31-33). Since the USA was disturbed by this rising social opposition in Turkey, it openly or covertly supported various rightist movements, especially the military, which it thought would eliminate the leftist opposition. The relationship of the military with the USA was shaped on the basis of organizing resistance against a communist expansion under the specific conditions of the Cold War period under the roof of the NATO. NATO was basically a military structure organized on an anti-communist basis, and its aim was not only to organize the resistance against a potential communist expansion, but also to suppress a possible leftist opposition that might develop in Western countries with various organizational structures affiliated to it. This would be possible through various rightist structures organized within the state apparatus and their civilian extensions. These structures within the NATO were shaped by the specific characteristics of each country. This organization was named *Gladio*. Its equivalent in Turkey was called the Special War Department. This structure organized in the state apparatus was first heard of after March 12 Memorandum. This structure soon attracted the interest of the public. When Ecevit announced the existence of organizations within the state during a meeting speech in Izmir, it was recognized by the official circles for the first time. The extension of this structure in the civilian sphere was carried out over extremist rightist youth movements.

M. Togmac' statement regarding the justification of March 12 Memorandum that social development was left behind economic development was clearly an expression of the discomfort felt against the leftist opposition. Togmac stated his concern during the National Security Council meeting on 24 April 1970 that the leftist thought became influential within the military and was in preparation of a revolution that would lead to communism (Ersan, 2016: 61-2). The martial law declared after the Memorandum and the operations that were carried out were clear indicators of this discomfort felt. Claiming that the Memorandum was aimed at CHP and the left of the center, Ecevit announced his resignation from his post as the Secretary General of the party (Yasli, 2020: 194). Following the martial law declared on 26 April 1971, the military and the rightist organizations it led were to play a significant role in the intensification of the increasing suppression and violence across the country. The performance shown by the 1st and 2nd Erim governments

formed by the pressure of the military after the Memorandum was far from meeting the expectations of the society. In the reform package prepared, land reform, agricultural reform, nationalization of mining industry and Turkey's share in partnerships as 51% were envisaged (Zurcher, 2016: 374). Although the reforms received the support of the large capital, they failed in terms of realization. On 27 April, the National Security Council declared martial law effective from the next day in 11 provinces, which was to be renewed for two years. The military, which acted as it desired under the Erim Government, carried out operations against the left upon the murdering of Istanbul Consul General of Israel. 5,000 people were taken under custody across Turkey (Zurcher, 2016: 375). Execution of student leaders, gradual elimination of relatively democratic regulations created with the 1961 Constitution, suppression of social opposition were just some of the practices realized in this period of power.

In the general elections held on 14 October 1973, CHP came out as the first party. Although a coalition government was established between CHP and MSP under the lead of Bulent Ecevit on 25 January 1974, due to a series of disagreements and the rigid ideological partings of the period, the alliance established did not live long (Ozdemir, 1995: 233-4, 236). In a period when the cleavage between left and right ideologies manifested itself in every aspect of life, accusing organized left opposition at every level with communism was a strong discourse used by right-wing parties. Under the dominant ideological conditions shaped by the conservative thought, MSP was accused on the grounds that it supported the leftists with the coalition government it established with CHP, and MSP, which fed from the same political base as the other right-wing parties, carried its religious and nationalist discourses it developed in order to get rid of these accusations directed it to the most radical point (Ozdemir, 1995: 238-9). The Turkish Military was quite disturbed by this coalition and especially by the 1974 amnesty (Birand, 1986: 42).

In this process, MHP started to function as bridge between the other right-wing parties at the degree of the influence area it had gained as a result of its open support for the state's repressive apparatus (military, intelligence and the police). The concretization of this political effort as alliances between right-wing parties would emerge in the form of Nationalist Front governments. Nationalist and religious segments among certain intellectuals led by an academic circle started to express their thought that right-wing parties should gather under the nationalist front. *Intellectuals Home* was behind these thoughts. 14 professors who had

conservative and nationalist views proclaimed their thought by advertising in *Ortadogu* newspaper. Upon the invitation of A Turkes, opposition leaders of the right wing came together in Ankara office of Ortadogu newspaper, and agreed on the formation of the Nationalist Front by bringing together various right-wing parties (Yanardag, 2002: 71-2) On 12 March 1975, they established the 1st National Front government with AP, MSP, CGP, and MHP under the prime ministry of Demirel. Staffing of the right in the state apparatus reached extreme points (Yasli, 2019: 279-83). Although MHP was the little partner of the coalition and had only three deputies, it was granted two ministries and brought into a powerful position (Tusalp, 2007: 242). By using the authority crisis experienced and the provocative atmosphere very well, MHP rose to the partners position in the power and became an active center where the votes of a certain social base were accumulated and an anti-communist front arose across the country. As it did not propose a certain model, its position in the right wing was left in vagueness (Bora and Can, 2000: 97) At the beginning of 1977, difference of opinion and conflicts within the "Nationalist Front" became deeper. This ideological cleavage did not stay limited to between left and right, but soon expanded to include the nationalist and Islamist segments (Feyzioglu, 2013). Depending on the rising violence, the reactions against MHP became widespread. As a result, at the end of January, Turkes was removed from the duties he had assumed in various ministries (Socialism and Social Struggles Encyclopedia, p. 2227).

MHP had taken over an important role in the direction and management of declassified elements coming from different layers of the society against street actions. By taking advantage of the opportunities provided by having organized within the state apparatus for a long time, it became an effective power within a short time. Besides, it appeared to have been successful in the violence methods it used against the left in street actions, and to have received the modest support of the capital as long as it did not go to the extremes.

Although CHP was the first party in the general elections held in 1977, as a result of the political tension it experienced with AP, they adopted a common attitude against CHP with the other right-wing parties. When CHP minority government failed and could not obtain a vote of confidence after the June 1977 general elections, the 2nd Nationalist Front government was established under the lead of S. Demirel. Although the role of MHP in the rising violence across the country was not openly expressed, it was known by the right-leaning politicians. Its exclusion from the 3rd NF

government by Demirel was a clear evidence for this (Bora and Can, 2000: 97). Later, it would be the first government that fell with a motion of censure in the history of the Republic. This period is a period when foreign trade balances were disrupted. So much so that, foreign trade deficit exceeded 4 billion dollars (Boratav, 1995: 341).

In 1978, CHP, which received the support of the 11 deputies who resigned from AP and CGP (Republican Trust Party) and DP (Democratic Party), formed the 3rd Ecevit government. In the interim elections held in 1979 due to 5 empty seats in the parliament, AP came out successfully. While AP won all deputy seats, it also gained 33 senatorship in the elections held for 50 Senate memberships (Akin, 2019: 405). Upon this development, CHP government under the lead of Ecevit, which thought that they lost social support, resigned. The AP government formed under the leadership of Demirel was named as the 3rd National front government as it received the support of right-wing parties such as MHP and DSP. The AP government was the first minority government that obtained a vote of confidence in the history of the Republic.

In the process leading to the September 12 military coup, the current economic and political crisis conditions deepened more along with murders, massacres and armed conflicts and reached a level that could not be prevented across the country. On the justification of saving Turkey from the communist threat, rightist organizations were formed and supported. This organization, which started to realize a comprehensive destruction plan step by step, claimed that they were the soldiers and police officers of the state associating themselves with the repressive apparatus, and they also tried to sustain their existence by arguing that they were the protectors of traditions and customs. Their purpose was to legitimize their actions in the eyes of the great masses. Orhan Tuleylioglu, Abdi Ipekci, Umit Kaftancioglu, Umit Y. Doganay, Dogan Oz, Sevinc Ozguner, Bedri Karafakioglu (Tuleylioglu, 2007a); Cevat Yurdakul, Cavit Orhan Tutengil, Kemal Türkler (Tuleylioglu, 2007b) were only some of the intellectuals who were murdered in the attacks carried out by extreme rightist segments. 1 May 1077 and 16 March massacres, murder of 7 young members of Turkey Worker Party were among the mass massacres experienced in the process that led to September 12 intervention (Gunckan, 2010: 123-155). The actions of the rightists were not limited to the assassinations of important individuals across the country. The conflicts were no longer ideology based and started to turn into conflicts based on ethnic and denominational differences. The massacres of Maras, Sivas and Corum are

among the examples of these conflicts (Tunc, 2011: 285-316; Ertekin, 2020) In various press organs, especially by B. Ecevit, it was claimed that the violence actions performed by the rightist organizations were carried out with the support of the Gladio (Ilsever, 2015; Parlar, 2008: 491-583.

Towards the end of December 1979, a letter was sent to President Koruturk by the military. In the letter, the military expressed their concerns and called for action by the political actors, and stated that if a strong and trustworthy government was not formed, the military would take over the administration (Akin, 2019: 406 as cited in Ozdemir). Koruturk invited both Demirel and Ecevit to the presidency at the same time and gave them the letter, but none of the leaders thought it was addressed to them. Therefore, the memorandum that could be qualified as moderate did not create the expected effect, the letter could not find an addressee. Demirel, who met with the generals who gave him the memorandum in the early days of January 1980, stated "Do not ask for Martial Law, Independence Courts, exile, and Tunceli Law..." (Dogan, 1985:56-7). Demirel knew that such practices would not be valid in a democratic system.

In those days, when the political murders could not be prevented anymore, the last event that made the military intervention inevitable was the Konya Meeting held by MSP on 6 September 1980. This meeting, during which participants refused to recite the Turkish National Anthem and shouted slogans such as "one caliph", "one state", "one nation", reinforced the perception that reactionism constituted a threat to the Republic (Aydin and Taskin, 2017: 326).

Carl Schmitt had tried to legitimize Hitler's forcibly taking over the administration due to the political crisis experienced in the *Weimar Republic* by basing it on the right of the dominant individual or group to make a decision in exceptional cases. To him, there is an absolutist resort that emerges during the times of crisis which pluralist democratic systems cannot overcome. These are the moments when "the exception becomes the rule." In such moments, all democratic mechanisms, namely the parliament where the administration is concretized at the highest level and other institutions, lose their meaning in terms of function (2020: 13). From then on, politics stops being a power-focused activity area where different political views are supposed to live together, which is thought as diversity, and becomes a struggle where power is reestablished on the basis of "friend-enemy" contrast. Thus, by attributing an establishing role to the field of politics as having no determinants and determining itself, Schmitt

gives a privilege to politics. Similarly, H. Arendt (2009) argues that politics takes on an important role on the basis of friend-enemy contrast in order for authoritarian regimes to create their legitimacy.

We can define September 12 military coup as a resort where all activities of democratic institutions across the country were frozen, and the exception became the rule. Under these exceptional conditions, politics shaped on the basis of "friend-enemy contrast shows itself as the most powerful determinant in the reestablishment of power. Military coup, which emerges as a result of the failure of the establishment of political class hegemony, manifests itself as a response to the solution of a variety of problems. The first aims to solve the contradiction, that is hegemony crisis, among the dominant classes. The second is related to the solution of the contradiction between dominant classes and dependent classes (Mucek, 2009: 177).

In the 1982 Constitution, the opportunity of the legislation to supervise the power was taken away to a great extent. The Presidency, whose authorities were increased, assumed an importance to the degree that would not comply with the classical parliamentary understanding. When the Prime Minister and the President had the same opinion, the executive power would gain more power against the legislative power. When there was a tension between the two, the disproportional authorities of the president could create tension that would prevent taking quick decisions and implementing them as both one wing of the executive power and the legislative power would lose their power.

National Security Council (NSC) "advises the Council of Ministers on the recommendations of the State concerning the appointment, determination and implementation of the national security policy and the provision of the necessary coordination." It is clear that the premise that the security of the civilians could not be ensured underlies all these regulations. The most debated duty of NSC was the preparation of the National Security Politics Document (NSPD) which was to be renewed every five years. The studies regarding the document were carried out at the General Staff headquarters, it was finalized by the Secretary General of NSC, and it took effect upon the approval of the Prime Minister. The application principles of NSPD were shaped with National Strategy Document (NSD), and additionally, National Military Strategic Concept (NMSC) in which threat assessments were included was prepared. The Secretary General of NSC took its authority from the provision of the law

numbered 2945: " It determines the necessary guiding principles in line with the Kemalist thought protecting the Constitutional order and ensuring national unity and integrity combining them around the national ideals" (Aydin and Taskin, 2017: 337). It was clear that with the 1982 Constitution, formation of political parties and organization that did not comply with Kemalist ideology would not be allowed.

Below, it is discussed how the anti-democratic practices of the state's pressure apparatus were tried to be legitimized by law through new regulations.

6. Law as an Ideological Apparatus

The most typical feature of the exceptional state form is the qualitative change experienced in the legal system. In the Exceptional State form, the functioning forms of the law vary. In the case of the ordinary state, ideology fulfills an important function in terms of masking class struggle. Law, on the other hand, realizes this in different ways. (1) Law regulates the relationships of dominant classes and fractions that constitute a given power block within the state apparatus and establishes the ideological hegemony of one of these classes. (2) Law organizes the relationships between other classes other than the dominant classes. (3) Law organizes and approves the physical pressure on masses. (4) Law defines the limits of the state's practices, namely the intervention of the state apparatus. This situation is mostly defined as its function of determining the distinction line between the individual's legal rights and the state. To Poulantzas, this distinction is essentially based on the distinction between public and private, and these boundaries express a power balance, which is a class relationship (Poulantzas, 1974: 321). Law limiting the intervention of state apparatus is not only a result of the power struggle between dominant classes in the power block, but also a result of the limitation of class hegemony by the masses. Law determining the intervention limits of each state apparatus that are controlled by the dominant class reflects the power balance established within the power block; Limitation of the state apparatus controlled by the dominant class by law constitutes the basic distinction between legislation, execution and law (Poulantzas, 1974: 322).

In a news published in daily press on 11 September 1980, the statement made by the president of Turkey Employers' Unions Confederation, Halit Narin, claiming that production would not increase before the establishment of State Security Courts (DGMs) found a place in the

headlines. In a letter sent to Kenan Evren by the founder of Koc Holding, Vehbi Koc, soon after the military coup, it was demanded that the political criminals arrested, should urgently punished, the authority of security forces should be expanded, and legal regulations in this regard should be made (Oran, 2006).

With the edicts it published on September 12, NSC started to announce the measures and decisions taken regarding restoring public order. New appointments were made to martial law commands. Leaving the country was prohibited. The activities of political parties and all association except Turkish Aviation Institution and the Red Crescent, and DISK and MISK unions were halted, and the managers of these unions were taken under the "protection" of the Turkish Military. Security General Directorate was placed under the command of Gendarmerie General Command. Strikes and lockouts were postponed (Tanor, 2000: 26) As it was not possible for NSC to fulfill all functions of the executive power, it was decided to establish Council of Ministers in terms of legal structuring of the military regime. Bülend Ulusu was appointed by the National Security Council to form the government. Consequently, Council of Ministers was formed, started to operate and obtained a vote of confidence (Tanor, 2000: 30).

The first important document regarding the legal structuring of the military regime is the text titled The Turkish Republic National Security Council Legislation Duties Bylaw. With this bylaw, NSC gathered on itself not only the legislative power but also the right and authority to make amendments to the Constitution (derived constituent power). The Council would consider the authority to create a new Constitution (primary constituent power) in its jurisdiction and use it without sharing it with anyone else (Tanor, 2000: 32).

In 1981, NSC started a very rapid legislation activity. The first products were related to changes in laws, and these were regarding the expectations of especially public order, judiciary, and the Turkish Armed Forces (TSK). Afterwards, new and permanent law making process started. The changes in laws made in the first phase were related to criminal law, which was followed by criminal justice laws (Tanor, 2000: 33). NSC, which determined that the political vigor in the country did not subside and decided that this was deteriorating the peace environment the country needed, with its edict numbered 52 and dated 2 June 1981, prohibited all political party activities, continuation of political conflicts, and previous members of parliament and party managers and members from giving oral-

written statements about the political and legal past and present of the country, writing articles and organize meetings (Tanor, 2000: 26) Besides, the individual rights and freedoms introduced by the 1961 Constitution were seriously damaged. Among the individual rights that were damaged the most were the right to life and the right to physical integrity. If we exclude the period between 1971-1973, death penalty, which had not been executed since 1964, started to be executed. The claims regarding extrajudicial execution and torture became widespread, and with detention period being increased to 90 days, personal security was eliminated. As the right to appeal for imprisonment less than three (3) years was cancelled, the principles of right to legal remedies and fair trial were discarded. With the regulation made to the new Citizenship Law, many individuals who had to flee abroad were expatriated and lost all their rights (Tanor, 2000: 35).

Two main properties during the military regime are outstanding. The first is the expansion of military judiciary to include the civilians more. The reasons for this are the martial law declared across the country and the establishment of martial law military courts, some of which were new, affiliated to the martial law commands. The second important property is the fact that judicial supervision underwent severe limitations in this period (Tanor, 2000: 36).

Secretary General of NSC, Full General Haydar Saltik announced the democratization program of the military regime on 1 November 1980. About two months later, K. Evren announced the democratization schedule. The most important tool of NSC for the project of restructuring the country was a new Constitution. For this purpose, firstly, The Law on Constituent Assembly was enacted. The duty of the Constituent Assembly was to establish the constitutional and legal framework that would carry the country to its new order, to pass basic laws, and to use the legislative power until the formation of Turkish Grand National Assembly (TBMM) (Tanor, 2000: 37). The Constituent Assembly was made up of two wings as National Security Council (NSC) and the Privy Council (PC). However, the relationship between the two wings was not a relationship of equals, but of subordinate-superior. The right to make the final decision in making laws and the Constitution and authority to supervise the government belonged only to NSC.

The two provisions of the law passed are remarkable. The first provision is related to allowing the explanation and promotion of the

Constitution and prohibiting its criticism as per NSC decree numbered 70. The second is about depriving those who would not vote in the election of the right to elect and be elected for five years. On the other hand, by combining the vote for Constitution with Presidential plebiscite, a new pressure was created. As per the provisional 1st article of the Constitution, with the adoption of the Constitution with the referendum, the Head of NSC would assume the title of the President (Tanor, 2000: 41). Psychological pressures such as if people wanted to pass to democracy, they should vote yes for the Constitution started to be applied over the media. In an additional decision they made in order to prevent potential developments, they included these regulations: "The provisional articles of the Constitution and promotional speeches for the Constitution to be made by the President on the radio and television and during visits to the cities cannot be criticized, and no statements, written or oral, against these speeches can be made" (Tanor, 2000: 41).

The promotion of the Constitution with one actor in the absence of other candidates was started on the state's channel by K. Evren. The Constitution was adopted in the referendum held under anti-democratic conditions. The executive power is now not only a responsibility that is fulfilled within the framework of laws as in the 1961 Constitution, but also an authority which is directly taken from the Constitution. Constitutional Jurisdiction was also narrowed. First of all, procedures that could be supervised were limited. The laws and decree laws of the NSC period are exempted from supervision. Since the basic rights and freedoms are restricted directly in the Constitution, judicial supervision in this regard is rendered ineffective. The ways to appeal to the Constitutional Court are also restricted (Tanor, 2000: 43-4). The changes in the internal structure of the executive power are also remarkable. Here, there are mainly two trends observed: increase in centralization and empowerment of the President. The typical indicator of the first trend is the elimination of autonomous institutions within the administration. The second is that the position of the Presidency is also strengthened theoretically (Tanor, 2000: 44).

According to the Constitution and its makers, the highest value was neither the individual nor freedom and democracy, but the State and The Turkish national interests. The democracy and the rule of law which the Constitution aimed and protected are the democracy and rule of law as stipulated in the Constitution. The rule regarding issues such as personal freedom, physical integrity and security, right to privacy, immunity of domicile, and freedom of communication is not in the jurisdiction of the

judge but of the administration and law enforcement (Tanor, 2000: 45). The basic principles of the secular state, which are neutrality and not trying to instill religious beliefs in anyone, were violated ruthlessly. The freedoms of thought, science and art cannot be used in defiance of the principles of the Constitution (Tanor, 2000).

Collective rights and freedoms were restricted. Labor class was almost banned from the political sphere, and this area was seen as a unique privilege for the members of the wealthy class. Political activities and collaboration in this regard of organizations such as associations, unions, cooperatives, professional organizations functioning as public institutions were prohibited (Tanor, 2000: 48). Activity areas of political parties were restrained. Accordingly, they could not form women and youth branches, could not establish foundations, and could not establish political relations and collaborations with associations, unions, professional organizations, cooperatives and similar organizations (2004: 48). All kinds of legal regulations were implemented in order to keep the society out of political activity. Government employees and students cannot join political parties. The restrictions regarding the organizations of political parties mainly aimed at left-leaning parties. As a matter of fact, cutting the connection of the parties with mass organizations would mean loss of mass base for leftist organizations (Tanor, 2000: 48).

Another indicator of keeping the masses of away from politics is that elections for TBMM were to be held every five years instead of four years. In the new system, the decision of a judge is no longer a prerequisite for restricting freedoms, and they can be restricted with the intervention of the administration (police). As long as "a drawback in case of delay" is seen. It is clear that with the 1982 Constitution, it was the executive power that profited the most, and the judiciary power that lost the most (Tanor, 2000: 49).

7. Conclusion

The justifications of September 12 military intervention were officially explained based on the fact that the conditions of civil war that developed as a result of ideological separation expanded so as to include various segments of the society and became unstoppable. When the evaluations made over social phenomena are considered, it is obvious that there was a security weakness. However, it is possible to understand the reasons for social events not only over social phenomena, but by revealing the class

relationships underlying these phenomena. The first conclusion to be drawn from this study is that September 12 military intervention is a consequence of a hegemony crisis in which economic crises transferred from the past were accompanied by political crises, the current order could not be sustained with old methods, the dependent classes were in search of a new order, and with which the dominant classes were confronted under these conditions.

The crises experienced in the economic sphere as of the second half of the 1960s were a result of the crisis which capitalism created at a global scale. This means that it made it necessary to eliminate the import substitution model and instead to implement neo-liberal economy policies in which export was in the foreground. Nevertheless, it was not possible for the dominant classes to achieve their economic and political targets as the working class was active in the unions, leftist parties and other mass organizations. Although the neo-liberal program, which manifested itself as January 24 decisions, was approved by the 3rd Nationalist Front government, it was impossible to implement it under the conditions in which the working class was organized. The second conclusion to be drawn from the study is that with the military intervention, the state, under the pretense of neutrality as a result of its gaining a relative autonomy against all classes and mostly by using its repressive apparatus and destroying the organized structure of the working class, implemented the neo-liberal economic program.

September 12 military intervention cannot be evaluated independently from the political tensions caused by the power struggle developing between the USA and USSR in a conjuncture shaped by the conditions of the Cold War. Two important political developments as the occupation of Afghanistan by USSR and the Islamic Revolution in Iran weakened the power of the USA in the region. Accordingly, within the scope of Green Belt Project including Turkey, all jihadist organizations were actively supported and protected by the USA. In the context of Turkey, this project developed in the form of supporting the anticommunist elements and suppressing leftist movements. In fact, the support provided to anticommunist segments by the USA was not something new, but a consequence of the struggle carried out under the counter-insurgency organization in the 1970s. The third conclusion drawn from this study is that the dominant ideology which was formulated as the Turkish-Islam synthesis after the military coup was openly supported as it overlapped with the "*Green Belt*" project of the USA.

Closing and later restricting the political parties and non-governmental organizations in compliance with the Turkish-Islam ideology created a representation crisis in the eyes of great masses. The fourth conclusion to be drawn from the study is that the representation crisis created by the political prohibitions caused illegal activities to emerge.

All antidemocratic practices implemented by the state's repressive apparatus across the country were legitimized by the regulations made by the legal branch of the state's ideological apparatus. The last and fifth conclusion to be drawn from this study is that the 1982 Constitution, which was created under coup conditions, does not aim to improve individual rights and freedoms, but it is based on an understanding that puts the security of the state in the center and can sacrifice everything for this purpose.

References

- Arendt, H. (2009), *Totalitarizmin Kaynakları 1 / Antisemitizm*, çev. B. S. Şener, İstanbul: İletişim Press.
- Altaylı, M. (1969), *Türk Milliyetçi-Toplumcu Doktrinin Umumi Esasları*, İstanbul: D.A.S Dava Press.
- Arcayürek, C. (1986), *Demokrasi Dur 12 Eylül 1980*, c.10, Ankara: Bilgi Press.
- Akın, R. (2019), *Türk Siyasal Tarihi 1908-2000*, İstanbul: Onikilevha Press.
- Ağaoğulları, M. A. (2013), “Aşırı Milliyetçi Sağ”, Geçiş Sürecinde Türkiye (der.), I. C. Schink ve E. A. Tonak, İstanbul: Belge Press.
- Aydın, S. ve Yüksel Taşkın (2017), *1960'tan Günümüze Türkiye Tarihi*, İstanbul: İletişim Press.
- Ahmad, F. (2014), *Modern Türkiye'nin Oluşumu*, İstanbul: Kaynak Press.
- Ahmad, F. (2015), *Demokrasi Sürecinde Türkiye, 1945-1980*, çev. A. Fethi, İstanbul: Hi Press.
- Ahmad, F. (2014), *Bir Kimlik Peşinde Türkiye*, çev. S.C. Karadeli, İstanbul: Bilgi Press.
- Boratav, K. (1995), “İktisat Tarihi, 1908-1980”, Çağdaş Türkiye Tarihi c.4 (ed.), Sina Akşin, İstanbul: Cem Press.

- Bora, T. ve K. Can (2000), *Devlet, Ocak Dergâh, 12 Eylül'den 90'lara Ülkücü Hareket*, İstanbul: İletişim Press.
- Bora, T. (2017), *Ceryanlar*, İstanbul: İletişim Press.
- Birand, M. A. (2008), *12 Mart*, İstanbul: Can Press.
- Birand, M. A. (1984), *12 Eylül*, Saat 04:00, İstanbul: Karaca Press.
- Can, K. (2017), “Ülkücü Hareketin İdeolojisi”, *Modern Türkiye’de Siyasal Düşünce*, c.4, (ed.), Tanıl Bora, İstanbul: İletişim Press.
- Çavdar, T. (2008), *Türkiye’nin Demokrasi Tarihi, 1950’den Günümüze*, Ankara: İmge Press.
- Doğan, Yalçın (1985), *Dar Sokakta Siyaset (1980-1983)*, İstanbul: Tekin Press.
- Ersan, V. (2016), *1970’lerde Türkiye Solu*, Ankara: İletişim Press.
- Ertekin, O. G. (2020), *Maraş Katliamı, Vahşet, İşkence, Direniş*, İstanbul: Dipnot Press.
- Feyizoğlu, T. (2015), *Akıncılar ve AK Gençlikten AKP’ye*, İstanbul: Tekin Press.
- Günçikan, B. (2010), *Cumhuriyetin Kuruluşundan AKP İktidarına, Devletin Şiddet Tarihi*, İstanbul: Agora Press.
- Hür, A. (2015), *Çok Partili Dönemin Öteki Tarihi II, Darbeli ve Çatışmalı Yıllar*, İstanbul: Profil Press.
- İlsever, F. (2009), *Kontrgerilla Örgütlenmesi II*, İstanbul: Kaynak Press.
- İlsever, F. (2015), *Kontrgerilla Örgütlenmesi III*, İstanbul: Kaynak Press.
- Kazgan, G. (2012), *Türkiye Ekonomisinde Krizler (1929-2009), Ekonomi Politik Açısından Bir İrdeleme*, İstanbul: İstanbul Bilgi Üniversitesi Press.
- Kazgan, G. (2009), *Küreselleşme ve Ulus Devlet, Yeni Ekonomik Düzen*, İstanbul: İstanbul Bilgi Üniversitesi Press.
- Karpat, K. (2007), *Türkiye’de Siyasal Sistemin Evrimi 1876-1980*, çev. E. Soğancılar, Ankara: İmge Press.

- Mücek, A. A. (2009), *12 Eylül Askeri Darbenin Ekonomi Politikliği*, İstanbul: Gökkuşluğu Press.
- Mücek, A. A. (2019), *Türkiye'nin Tarihi ve Ekonomik Politik Yapısı*, İstanbul: Belge Press.
- Mücek, A. A. (2009b), *Türkiye'de Askeri Darbeler*, İstanbul: Gökkuşluğu Press.
- Oran, B. (2006), *Kenan Evren'in Yazılmamış Anıları*, İstanbul: İletişim Press.
- Ozan, E. D. (2015), “İki Darbe Arasında Kriz Sarmalı 1971-1980”, Osmanlı'dan Günümüze Türkiye'de Siyasal Hayat, (ed.), G. Atılgan, C. Saraçoğlu, A. Uslu, İstanbul: Yordam Press.
- Özdemir, H. (1995), *Siyasal Tarih 1960-1980, Çağdaş Türkiye Tarihi*, c.4, (ed.), Sina Akşin, İstanbul: Cem Press.
- Poulantzas, N. (1981), *Portekiz, İspanya ve Yunanistan'da Geçiş Süreci*, çev. B. Yılmaz, İstanbul: Belge Press.
- Poulantzas, N. (1974), *Fascism and Dictatorship*, çev. Judith White, London: NLB.
- Pamuk, Ş. (2020), *Türkiye'nin 200 Yıllık İktisadi Tarihi*, İstanbul: İş Bankası Kültür Press.
- Parlar, Suat (2008), *Kontrgerilla Kışkacında Türkiye*, İstanbul: Bağdat Press.
- Schmitt, C. (2020), *Siyasi İlahiyat Egemenlik Kuramı Üzerine Dört Bölüm*, çev. A. E. Zeybekoğlu, İstanbul: Dost Press.
- Sönmez, M. (1986), *Türkiye Ekonomisinde Bunalım, 12 Eylül ve Sonrasının Ekonomi Politikliği*, İstanbul: Belge Press.
- Sosyalizm ve Toplumsal Mücadeleler Ansiklopedisi, c. 7, İstanbul: İletişim Press.
- Saraçoğlu, C. (2015), “Tank Paletiyle Neoliberalizm”, Osmanlı'dan Günümüze Türkiye'de Siyasal Hayat, (ed.), G. Atılgan, C. Saraçoğlu, A. Uslu, İstanbul: Yordam Press.

- Şener, M. (2015), *Türkiye Solunda Üç Tarz-ı Siyaset YÖN, MDD ve TİP*, Ankara: Yordam Press.
- Şenses, F. (2017), “Türkiye Ekonomisinde Neo-Liberal Dönüşümün Arka ve Başlangıcına İlişkin Gözlem ve Değerlendirmeler”, *Modernizmin Yansımaları: 80’li Yıllarda Türkiye*, (ed.), R.F.Barboros, E.J.Zurcher, Ankara: Efil Press.
- Tekeli, İ. (2017), “1980’li Yıllarda Türkiye Ekonomisinde Dönüşüm, Modernitenin Aşınması ve Planlama”, *Modernizmin Yansımaları: 80’li Yıllarda Türkiye*, (ed.), R.F.Barboros, E.J.Zurcher, Ankara: Efil Press.
- Tüleylioğlu, O. (2018a), *Neden Öldürdüler*, c. I, Ankara: Umag Press.
- Tüleylioğlu, O. (2018b), *Neden Öldürdüler*, c. II, Ankara: Umag Press.
- Tuşalp, E. (2007), *Bozkurtlar*, İstanbul: Say Press.
- Tunç, A. (2011), *Maraş Kıyımı, Tarihsel Arka Planı ve Anatomisi*, İstanbul: Belge Press.
- Tanör, B. (1995), *Siyasal Tarih 1980-1998, Çağdaş Türkiye Tarihi*, c.5, (ed.), Sina Akşin, İstanbul: Cem Press.
- Yanardağ, M. (2002), *MHP Değişti mi? Ülkücü Hareketin Analitik Tarihi*, İstanbul: Gendaş Press.
- Yurtsever, H. (2008), *Yükseliş ve Düşüş Türkiye Solu 1960-1980*, Ankara: Yordam Press.
- Yaşlı, F. (2019), *Antikomünizm, Ülkücü Hareket, Türkeş, Türkiye ve Soğuk Savaş*, İstanbul: Yordam Press.
- Yaşlı, F. (2020), *“Halkçı Ecevit” Ecevit, Ortanın Solu, CHP 1960-1980*, İstanbul: Yordam Press.
- Zürcher, E. J. (2015), *Modernleşen Türkiye’nin Tarihi*, çev. Yasemin Saner, İstanbul: İletişim Press.