ISSUES ON SUSTAINABILITY, ECONOMICS & HISTORY

Editors
Şevket Alper Koç
Abidin Çevik

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CONTENTS

INTRODUCTION: ISSUES ON SUSTAINABILITY, ECONOMICS & HISTORY

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This book examines the diversity of social science debates and contains three topics: sustainability, economics, and history. With this object in mind, the study is composed of 3 sections and 6 chapters. Under these three sections, the book aims to make contributions both to academic world, namely to the literature of economics, sustainability, and history and to real world through some applications. Consequently, any academician, or practitioner who is interested in these areas would benefit from the book.

Below, these chapters are briefly summarized.

In the first chapter Erdil states that the chapter describes a specific approach and perspective on business environmental sustainability. The novelty of this study is strengthened by the application of cause-and-effect diagrams and Strengths, Weaknesses, Opportunities, and Threats (SWOT) assessments in the surroundings of SMEs in creating methods in evolving economic, social, and environmental settings. Throughout generally, this research significantly advances the understanding of how SMEs use innovation in a specified nation. The findings of this research may assist SMEs become more successful and long-lasting, which may enhance the overall framework of technological and innovation leadership in developing countries.

In the second chapter Aktaş aims to examine green budgeting methods developed to ensure fiscal sustainability and their applications in various countries, providing new evidence. It aims to contribute to countries' approaches to green budgeting by promoting best practices in green budgeting applications. The research will focus on the following questions: How can the budget be made "green," and what methods can be used? Can

green budgeting applications yield effective results? How can green budgeting assist in the fight against climate change?

In the third chapter Ümit examines the effects of the pandemic and post-pandemic period on Turkey using macroeconomic and vulnerability indicators. To this end, the period of analysis was taken as the period from 2018 to 2021 and the first two quarters of 2022 marked by the declining effects of the pandemic. According to the macroeconomic data collected, Turkey achieved economic growth during the pandemic period; however, the growth did not substantially reduce unemployment rates. According to the vulnerability indicators of Turkey, there was an increase in the indicators due to the impact of the pandemic crisis in 2020. With the fading effects of the pandemic in 2021, the global economy recovered to some extent, thereby boosting foreign demand. The Turkish economy increased its growth rate in 2021 due to the rise in domestic/foreign demand. Thus, Turkey's vulnerability indicators, although slightly, improved in 2021.

In the fourth chapter Avcı explains that unlike previous studies, the incentive system applied to green buildings in 6 different developed countries is analyzed and various suggestions are developed for Türkiye. In this context, the study first presents an overview of the concept of green building, the characteristics, and benefits of green building. Subsequently, practices and tax incentives for green buildings in selected countries are evaluated. Then, practices and tax incentives for green buildings in Türkiye are discussed. In the conclusion section, various implications and recommendations are made for Türkiye based on green building tax incentives in selected countries.

In the fifth chapter Koç and Koç studies on disasters and their effects. The authors states that disasters have occurred in different parts of the world at different time intervals as abnormal events and have attracted the attention and interest of mankind throughout history. The most important reason for this is that disasters cause severe loss of life and property for human beings and other living creatures. With the increase in publications, the fact that disasters occurring anywhere in the world are known by all other people has increased the interest in disasters. At the same time, with the effect of globalization, the economic and social effects of a disaster occurring anywhere in the world can go beyond the borders of that country and affect people living in different countries.

In the sixth chapter Çevik analyzes the implications of the Committee of Union and Progress (CUP) upon the dynamics of British-Ottoman relations. The focal point of this study lies in discerning the nuanced

impact of the Committee of Union and Progress (CUP) on British-Ottoman relations, with a particular emphasis on tracing the evolution of this influence, notably in tandem with the ascendancy of the CUP.

PART I

SUSTAINABILITY

1

AN OVERVIEW OF INNOVATION AND TECHNOLOGY SUSTAINABILITY: EVALUATION FROM THE PERSPECTIVE OF SMALL AND MEDIUM ENTERPRISES (SMEs)[1]

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Abstract

Small and medium-sized businesses (SMEs) constitute a sizable portion of the overall population of businesses that inevitably expand in order to continue operating. SMEs are capable of being adaptable to the markets' rapid change. SMEs are frequently the primary catalysts for innovation, which is then accepted and enhanced through major companies. Environmental awareness is growing among individuals. In the context of the green economy, encouraging these SMEs to create innovations that might encourage sustainability becomes essential. Resource limits, talent gaps, and knowledge gaps are typically associated to SMEs' preparation, desire, and capacity to embrace green business possibilities. It is unclear to what extent SMEs are engaged in eco-innovation, which might benefit the natural environment and social sectors in addition to helping them perform better overall. For instance, Innovation and technology can have a positive impact on sustainability in several ways: It can reduce the environmental footprint. New technologies can make significant advances in areas such as energy efficiency, waste reduction and the development of renewable energy sources. For example, electric vehicles produce less air pollution and greenhouse gas emissions than fossil fuel vehicles. SMEs are seen to be the main contributors to a nation's sustainability since they provide a significant advantage for the development of SMEs' sustainability-related organizational features. Businesses throughout the globe and SMEs in emerging nations in particular face a growing array of threats and challenges as a result of globalization and rapid modifications to the environment. In order to examine innovation for sustainability, the present research would first describe a specific approach and perspective on business environmental sustainability. How SMEs might be supported in their efforts to innovate for sustainability. The novelty of this study is strengthened by

[1] This paper was presented orally at theInternational Congress on Current Debates in Social Sciences International Congress on Current Debates in Social Sciences (CUDES 2023) Congress on 11-12 October 2023 in Tbilisi Georgia

the application of cause-and-effect diagrams and Strengths, Weaknesses, Opportunities, and Threats (SWOT) assessments in the surroundings of SMEs in creating methods in evolving economic, social, and environmental settings. Throughout generally, this research significantly advances the understanding of how SMEs use innovation in a specified nation. The findings of this research may assist SMEs become more successful and long-lasting, which may enhance the overall framework of technological and innovation leadership in developing countries.

Keywords: Innovation; Small and Medium-Sized Businesses (SMEs); Sustainability; Technology.

Jel Codes: O32, M10, Q56, 014, N7

1. Introduction

Sustainability refers to how governments may satisfy their people's demands today without jeopardizing future generations'. Innovative thinking for sustainability is defined as doing something with imaginative, novel, or unconventional concepts and approaches to issues and requirements in an environmentally friendly way; What is economically beneficial to the Company. This encompasses the creation of new goods and services, as well as new procedures, technology, and business models to support organizational activities. The application of innovation to capitalize on a green business advantage to fulfill customer needs in a creative way by means of innovation in goods, services, processes, technological advances, and business model is referred to as innovation for sustainability. Some problems are involved in sustainable development. These problems are presented as follows: -Establishing innovation as a sustainable combustion for achievement for both businesses and people with disabilities, -the implementation of innovation in assistance of a green (or sustainability) responsibility, -the integration of company procedures and activities to tackle social and environmental obstacles which interact with the company's operations (Hueting and Reijnders, 1998; Bayarçelik et al., 2014; Baporikar, 2018).

Sustainable development, as defined by the World Commission on Environment and Development (WCED), is the significance of the planet (this involves the amount of air and water) and the environment, as well as the incidental systems that sustain life, such as the fertility of the soil. This is carried through by living organisms (plants, birds, fish, and other creatures) that must be safeguarded in addition to essential ecological activities. This implies that the environmental subject's capacity for absorption shouldn't be exceeded, and all species on the earth must coexist in harmony. This notion of sustainability presents ethical, social,

ecological, and economic concerns (Munasinghe, 1993; Hueting and Reijnders, 1998; Munasinghe, 2009).

Sustainable development considers not just population but additionally resource allocation. It has to be in sync with demographic trends. The concept of sustainable development is concerned not only with the economic and environmental destiny of mankind, but also with the socio-cultural future of humanity. Man is a social entity with socio-cultural requirements in addition to economic and physiological demands. As a result, it is critical to identify and consider the social concepts of environmentally friendly development, with a human focus, in order to achieve sustainable development. A well-educated, healthy, and mindful society ought to be able to achieve long-term development (Munasinghe, 1993; Burns and Holden 1995; Hueting and Reijnders, 1998; Munasinghe, 2009).

2. Literature Review

Innovation intermediates can assist businesses in their quest for external expertise, lowering associated expenses and uncertainties in the process. Innovation intermediates have the ability to create and administer innovation contests on behalf of their customers. However, little is known about how innovation intermediaries might create innovation competitions specifically for small and medium-sized enterprises. As a result, we have created an organized process for creating innovation competitions that aid SMEs in their quest for outside knowledge. Through an action research effort with an Italian innovation intermediary, this technique was established. The technique that SMEs might use to conduct external search is presented in the study, which adds to the body of research on knowledge search procedures. By examining ways to increase their influence on SMEs' innovation processes, the study adds to the body of literature on innovation intermediates. Everyone also look into how innovation competitions might be made more beneficial for small and medium-sized businesses. Lastly, the study advances knowledge regarding the significance of formulating particular accessible innovation policies to enhance the creative thinking of SMEs (Franzo et al., 2023).

In an effort to boost their creative thinking, investigation, for example, advises businesses to go beyond the limits of their organization and conduct external search procedures to get knowledge elements created by other companies (Laursen and Salter, 2006). According to Chesbrough (2003), an increasing number of businesses have used "open" search procedures to get external knowledge (Pollock et al., 2019b), which aligns with the tenets of the open technology paradigm. Finding external information, however,

is not always simple and easy since it calls for specialized R and D resources, the growth of appropriate skills, and the need to get over significant cultural obstacles (Cohen and Levinthal, 1990; Van de Vrande et al., 2009; Lanzolla et al., 2021).

Additionally, because outside knowledge seeking is through its very nature unpredictable and risky, it could even yield less than ideal results (Fleming, 2001; Laursen and Salter, 2006; Boudreau et al., 2011). This can be especially detrimental to small and medium-sized enterprises (SMEs) that are limited in their financial resources. While existing research highlights the benefits that SMEs could derive from obtaining external knowledge and using it to improve their innovative methods (Vanhaverbeke et al., 2018), it might also require the deployment of assets and abilities that SMEs might not have because of their responsibility of small size (Spithoven et al., 2013; Radicic and Pugh, 2017; Leckel et al., 2020; Hervas-Oliver et al., 2021).

The issues raised above, which have to do alongside the layout of innovation contests, are especially crucial for SMEs. Innovation facilitators have to meticulously organize innovation competitions to reduce the involvement commitment through SMEs while boosting their efficacy, as they have restricted resources to commit to outside information search (Radicic and Pugh, 2017). Still, there aren't many practical approaches that innovation agents can use to create innovation challenges that are successful for these kinds of businesses (Adamczyk et al., 2012; Rodriguez Ferradas et al., 2017; Doppio et al., 2020). This means that additional study and development needs to be done on those design components in order to make innovation disputes for SMEs more efficient. The goal of this study is to explore how an innovation intermediaries may create an innovation contest to assist SMEs in their quest for outside expertise, based on the aforementioned principles. In order to tackle the aforementioned topic, researchers provide a methodical approach to creating innovation competitions that aid small and medium-sized enterprises (SMEs) in their pursuit of outside information. This approach is tailored to accommodate the unique features of SMEs.

Researchers contribute to the increasing amount of research on innovation service providers (Howells, 2006; Lee et al., 2010; Leckel et al., 2020) by examining how these businesses might successfully design innovation challenges for SMEs and through offering an approach that these companies may employ to increase their effect on SMEs' processes for innovation.

Through examining how these approaches might be modified to meet the distinctive features of SMEs and boost their efficacy in this setting, the current study adds to the growing body of knowledge in this area. By doing this, researchers draw attention to the design decisions made for innovation contests that may have a special bearing on SMEs. Lastly, they also provide an increased awareness of the significance of defining OI government initiatives to enhance SMEs' inventiveness thus helping to promote growth in the economy through examining the creation and execution of an innovation challenge through a public innovation intermediary (De Marco et al., 2020; Leckel et al., 2020).

According to research, SMEs face significant obstacles in outside information search which might minimize the successful execution of this procedure (van de Vrande et al., 2009; Bigliardi and Galati, 2016; Vanhaverbeke et al., 2018; Radziwon and Bogers, 2019), such as an absence of funding or appropriate administrative competencies, difficulties in deciding on appropriate collaborators, cultural disparities administration, and administrative complications.

Encouraging SMEs in overcoming the constraints they have while conducting external searches might have a beneficial effect on regional economies owing to the importance of creative SMEs in maintaining them. As a result, governments have stepped up efforts to assist SMEs in overcoming resource restrictions (Spithoven et al., 2013; Leckel et al., 2020; Hervás-Oliver et al., 2021).

In addition to this, many different OI (Open Innovation) goods and services provided to SMEs through innovation agents, innovation challenges have attracted special attention as a means for extending searching for externally developed expertise and/or technological options to improve a firm's creative thinking (Boudreau et al., 2011; Liotard and Revest, 2018).

Regional galleries Creative thinking Ecosystems (RIE) have been understood to have an effect at the Regional Creative thinking Ecosystems (RIE) level (Kay, 2011; Liotard and Revest, 2018). RIE were first introduced through the European Commission to highlight that innovation takes place when industry, educational institutions, and government officials (commonly referred to as the "triple helix") get involved at the level of the region inside science green spaces, technological advances clusters, innovation centres, and other comparable programs (Leydesdorff and Etzkowitz, 1996; Markkula and Kune, 2015). These efforts encourage networking and communication among various local actors, and their place-based characteristics could be more appropriate to

foster creative thinking, particularly in SMEs, for which standard policies on innovation may not always successful (Hervás-Oliver et al., 2021).

By creating and executing innovation contests, innovation intermediaries may assist SMEs (Jeppesen and Lakhani, 2010; Boudreau et al., 2011). But there is still a lack of understanding of how to create an innovation challenge that is appropriate for the unique features of SMEs (Adamczyk et al., 2012; Rodriguez Ferradas et al., 2017; Doppio et al., 2020).

They contribute to the increasing amount of research on innovation service providers (Howells, 2006; Lee et al., 2010; Leckel et al., 2020) by examining how these businesses might successfully design innovation challenges for SMEs and through offering an approach that these companies may employ to increase their effect on SMEs' processes for innovation.

Additionally, everyone further the studies concerning the positions that are most appropriate for various classifications of innovation service providers (Klerkx and Leeuwis, 2008; Belso-Martinez et al., 2018). Belso-Martinez et al. (2018) noted that knowledge intermediaries can play three distinct roles as innovation agents: (i) coordination; (ii) interconnector; and (iii) gatekeeper. Based on our research, it appears that agents as health information technology (neighborhood knowledge brokers and technology transfer the basis) might be particularly well-suited to the role of guardian, linking SMEs with collaborations of problem solvers and other collaborators, via innovation events.

3. Method

3.1. SWOT Analysis

SWOT Analysis is the name of the method used to identify the strengths and weaknesses of the organization, process or situation in a project or a business venture and to identify opportunities and threats arising from the external environment. The Global Innovation structure of SMEs of Turkey's strengths and weaknesses as follows (OECD, 2021; OECD SME and Entrepreneurship Outlook 2021; opinions from author)

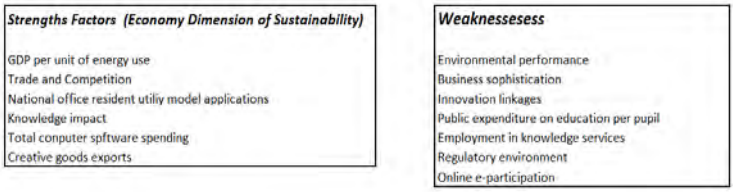

Figure 1. Analysis Of Strengths and Weaknesses

The strategy of this analysis is utilized to ascertain and evaluate the advantages, disadvantages, possibilities, and threats faced by a firm. The abbreviation SWOT is composed of these terms. Raising awareness of the elements involved in formulating a corporate strategy or choice is the main objective of an analysis of SWOT. This analyses address both the internal and external settings as well as the variables that may have an influence on a decision's feasibility in order to achieve this. As the business grows, this structure may assist you in creating a strategy to identify your top goals, seize opportunities, and remove obstacles. First, examine what this analysis is in detail, some instances, and how to do one for the company following (SWOT analysis, 2023; SWOT Analysis: How to Do One, 2023; opinions from author; Figure 1).

3.2. Methodology- Determining Cause and Effect

An effective approach for determining the cause(s) of flaws, variances, or failures in a procedure is the fishbone diagram. In a nutshell, it aids in dissecting fundamental reasons which could lead to an outcome in a series of phases. A fishbone diagram is one of the primary instruments used in a root cause analysis. It is also referred to as a diagram from Ishikawa or an effect-cause investigation (Fishbone Diagram, 2023).

The barriers to Sustainable Performance in Production/Service Innovation due to SMEs is presented via Cause-and-Effect Diagram such as Figure 2.

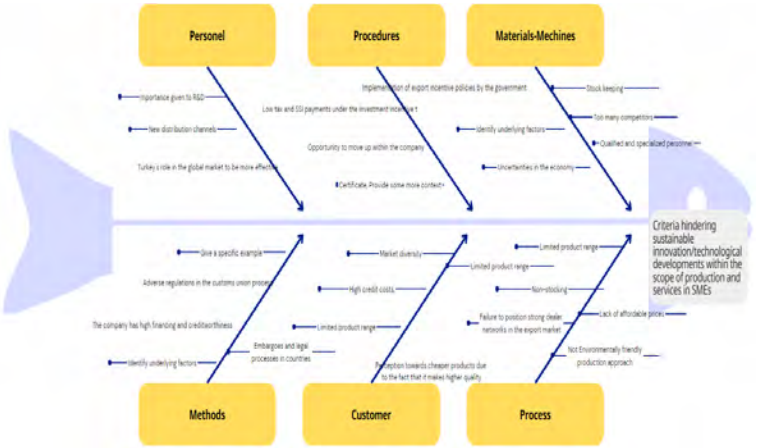

Figure 2. Fishbone Diagram /Cause-and-Effect Diagram of Application

The Fishbone technique is frequently used to identify the fundamental progression of an issue during the ideation stage of an established component. The University of Tokyo engineer Kaoru Ishikawa invented the initial version of this technique, which got its name from the tool's fishbone-like appearance. The fish's ribs each stand for a distinct category that might have caused issues. Though there are six categories that are frequently utilized for manufacturing or engineering challenges, each can be chosen based on the particular difficulties being sought to be solved: Human, Material, Machine, Method, Measurement, and Environment. Six different groups are typically employed when applying this strategy to a service problem: People, Process, Price, International Evidence, Promotion, and Place. The next stage is to enumerate potential explanations for each fish rib's feeding into a category once each rib has been given a category. After that, it should be determined whether any of the aforementioned reasons are contributing to the issue being studied by conducting tests or reading comprehension exercises (Fishbones and FMEA Diagrams, 2023; Fishbone Diagram: Determining Cause and Effect, 2023; opinions from author).

Economic Principles (Sustainability): The objective of the sustainable development approach is economic progress via the use of resources that are natural. Therefore, ecological equilibrium is required to enable long-term economic prosperity. In the past, non-renewable assets such as coal and oil reserves, natural gas, and so on were regarded precious assets which needed to be safeguarded. Nowadays, contaminated air and water, degraded soils, resulting depleted ozone layer, and so on are regarded as limited assets which must be conserved (Dietz and Straaten, 1992; Baporikar, 2018; Harsanto et al., 2023).

Environmental Principles (Sustainability): It is critical to apply development plans that observe, defend, and promote the natural world in order to achieve the goal of sustainable development. Because societal growth can solely be sustained if it is consistent with the natural world. Only the availability of the essential requirements briefly mentioned below will allow for sustainable growth. These are the components (Burns and Holden 1995; Baporikar, 2018; Harsanto et al., 2023):

Reducing negative impacts: In order for the ecosystem to preserve its entire truthfulness, ecological sustainability demands reducing damaging effects on air, water quality, and other factors.

The national and worldwide political systems are as follows: The biosphere is everyone's shared living place, and participatory ecological management is a requirement for global political stability.

Social principles (Sustainability): Development that is sustainable ensures a stable population, adequate education, health care, and family planning. Developing relationships between units and departments, as well as between the national and local administrations. It involves members of society in the decision-making process. Contributing to the development of ethical and moral principles that enable sustainable development, taking into account the environment's and the economy's connection. It helps promote the growth of multidisciplinary research, science, and education by providing a better knowledge of natural processes (Dietz and Straaten, 1992; Omar, 2013; Baporikar, 2018; Harsanto et al., 2023).

As a consequence of the technology and innovation Sustainable development: Assessment from the point of view of Small and Medium Enterprises (SMEs), **Small and Medium Enterprises (SMEs) may show substantial improvements by lowering expenses related to services, and they may even contend with and superior to commercial enterprises. **the Citizens bus service and train networks could operate more efficiently than ever before, thanks to more effective oversight of commodities, transportation, and the stock market (Bayarçelik, 2014; Baporikar, 2018; Harsanto, 2023).

In Turkey, SMEs make up a sizable portion of businesses that expand organically in order to survive. SMEs have the adaptability to quickly adapt to shifting markets. They frequently serve as the primary catalyst for innovations that are later picked up and expanded upon by bigger businesses. Environmental consciousness is rising among customers. In the age of the green economy, it becomes imperative to help these SMEs in their efforts to innovate in ways that promote sustainability. Resource limits, talent gaps, and knowledge gaps are often linked to SMEs'

preparedness, desire, and capacity to take advantage of green business prospects. It is unclear to what extent SMEs engage in eco-innovation, which might benefit the social and environmental aspects of their operations in addition to enhancing their general efficiency. The term "innovation" describes a widespread, enterprise-wide mindset that centres on the process of turning new concepts into something valuable. It offers a method for raising productivity in general through more intelligent management of organizational duties (Hueting and Reijnders, 1998; Zeng et al., 2010; OECD, 2021; OECD SME and Entrepreneurship Outlook 2021; Aygün and Ecevit, 2022; opinions from author).

Assessment of Technological and Innovation Sustainability Factors from the Small and Medium Enterprises (SMEs) Position of Perspective are listed as below (Munasinghe, 1993; Dymond, 1997; Hueting and Reijnders, 1998; Link and Siegel, 2007; Munasinghe, 2009; Zeng et al., 2010; Omar, 2013; opinions from author).

Economic Measurements;

Accounting: Cash, and Banks; The total amount of bank locations, overall budget income, total bank loans, total bank deposits, interest rate, and rate of credit card usage.

Electricity-Mining: Petroleum usage; unique energy resources; extracted ore's worth in dollars (TL/year); electric energy expenditure; generated and utilized electrical energy.

Industry: R&D expenses, technologically advanced exports, industry development rate, industrial-sector diversification, and foreign directed expenditure.

The Environment's Measurements;

Sources found in nature: Diversity Water availability, the state of the air, hydrological equilibrium, oxygen generation (by plant), marine products, and the sufficiency of water supplies

Transportation: The number of automobiles per capita, the percentage of vehicles/total road length of sentence, average travelling time in congestion, the ratio of surface to vehicle highway region, the amount of vehicles/multiple transport vehicle/total transport automobile, and the road regulations (quality); Transportation integration into the System.

Organic materials: Biodiversity Water availability, the state of the air, hydrologic balance, the production of oxygen (by plant), nautical goods, and the sufficiency of the water supply

Social Measurements:

Cultural factors: Overall yearly spending on cultural services; cinema attendance rate; Theatre-opera-ballet attendance rate; Museum count / total population; Ratio of theatres to cinemas; Number of performing arts centres / Overall inhabitants; the percentage of individuals that engage in intellectual activity; Several performances; The quantity of planned events

Medical care Healthcare facilities per 100,000 people the population's average life expectancy, the number of pharmacies per capita, the number of gyms per capita, the newborn mortality rate, and the number of people who play sports Number of civil servants, nursing staff and midwives/ The total populace; The overall population / Total healthcare spending; Number of beds / total inhabitants; Number of doctors (specialists, practitioners, and dentists) / the overall population

Crime percentage, the overall number of public servants, and citizen engagement in the government's operations, public spending relative to the total population size, the overall number of locations, administrative tasks

4. Results and Comments

One of the most crucial topics for companies looking to preserve or increase their competitiveness is innovation. The modern economies' process of transformation is one of the primary causes of this. It is possible to argue that one of the most essential aspects of organizational life is change. It involves creating new goods and services, locating fresh sources of raw materials, creating innovative company procedures, and implementing other organizational structure-related advances (Kline and Rosenberg, 1986; McFadzean et al., 2005; Link and Siegel, 2007).

One of the obstacles to innovation is an absence of a company's culture, which has a direct impact on how businesses develop and advance their inventive activities and determine how much development is possible. Examining the research in the literature reveals that companies with robust regional systems of innovation have a culture of collaboration, a propensity for linked learning, workplace cooperation, and support mechanisms. Conversely, in the weak innovation regional system structure, one might see a competitive civilization, personal learning propensity, internalizing, centralized control, and a centralized framework which are comparable to

those that would impede the growth of innovation (Miozzo and Walsh, 2006; Zeng et al., 2010).

Strengthen Innovation through SMEs and Entrepreneurship:

Some factors of Strengthen Innovation through SMEs and Entrepreneurship are presented as below (Miozzo and Walsh, 2006; Link and Siegel, 2007; Zeng et al., 2010; opinions from author).

i. *Develop favourable entrepreneurial cultures and framework terms and conditions:* By doing schooling and media coverage, promote good attitudes in society regarding company start-up and growth. Encourage favourable views within society toward startup companies and growth by means of education and the media; Guarantee which regulating and governance structures take into account the requirements of SMEs; Encourage the interconnected stages of business periods: entrance, development, decrease, and withdrawal; Address financing deficiencies impacting new and small companies; Guarantee which regulating and management structures take into consideration the requires of SMEs;

ii. *Incorporate new enterprises and SMEs into information circulates:* Strengthen expertise-based innovation by giving advise and instruction to entrepreneurs with strong technical backgrounds, as well as developing programmes for business spin-offs, such as a proof-of, pre-competitive investigation, and initial funding assistance. Encourage cooperation and partnership actions inside innovative structures, as well as offer the foundation for these engagements.

iii. *Develop innovative human potential by changing the primary focus from management of businesses to a growth-oriented innovation in colleges and colleges of higher learning:* Improve professional training and educational opportunities for company owners, SME and SME workforces by modifying the nature of job training to better fit the demands of the SME ecosystem. Incorporate entrepreneurial mentality education into educational programs and training for educators; Reinforce instruction for SME-relevant skills including in-house initiatives, collaboration with labour and leadership, training programs, and so on.

iv. *Create a favourable financial, economic, legal, and regulatory environment for social entrepreneurship and social innovation.* More

and better study on social entrepreneurship/innovation to better understand and encourage it; Assess the effectiveness of social entrepreneurship and social innovation policies. Incorporate social stipulations into government procurement contracts; Create grants for social innovation in various domains; Create social enterprise incubators and social innovation intermediaries.

5. Conclusion

The public's interest and awareness regarding environmental contamination have intensified as a result of these occurrences. several colleges have conducted studies to avoid environmental contamination, and several organizations have been founded. Furthermore, governments have developed educational initiatives to inform their population on this subject, and they have gone a step further by enacting safeguarding the environment legislation. Non-governmental groups have also helped to raise the public's consciousness and enlighten individuals about this problem.

The major goal of this discussion is to study innovation for sustainability in order to determine, explain, and evaluate the characteristics of innovation in Turkish SMEs. To capitalize on commercial prospects, SMEs in Turkey have become increasingly reliant on individual competence and network. Because of its richness of human and natural assets, Turkey has the opportunity to boost the innovative capabilities of SMEs. A few obstacles must be overcome in order to continue innovation-based development. There is an urgent requirement for ideological determination and continuous initiatives to encourage SMEs to engage in sustainable development.

Enterprises that play a significant part in the destruction of the environment have had to pay consideration to the issue of management since consumers value this problem and regard it as a competitive advantage. Therefore, prevention of environmental pollution in enterprises has been connected to a consumer-created automated control. Business' use of environmentally conscious emblems and names has begun to influence customer preferences.

In order to make the competition more feasible for SMEs, the industrial organization representative consented to organize it in a two-day arrangement. A visual designer from a major software company also contributed to the emphasis that the primary benefit of this kind of creative thinking challenge could be for SMEs to test current products with a select group of users, something that is typically difficult to accomplish. This

suggested that the innovation contest be designed so that the following day would be mainly committed to user evaluation. Evaluating the efficacy of the creative thinking challenge delivery, consumers happiness was examined by conducting interviews the five engaged SMEs (conversations were carried out via meeting decisions, which utilized place about two months following the innovation challenge transportation). In particularly, the assessment might involve four areas: happiness with the responsibility outputs, happiness with additional outcomes and outcomes accomplished, envisioned follow-up operations, and expected subsequent years affects of the independent thinking. This created it feasible to acquire strong indicative testimony that the developed innovation challenge achieved success in facilitating SMEs to source concepts of substances to product advancement and creative thinking challenges pertaining to the accessibility and user interface of digital goods, as well as enhancing SMEs' creative thinking capacity utilization. Excellent contentment regarding the creative thinking contest outcomes was demonstrated by all five SMEs. Three SMEs especially expressed great satisfaction and admiration for the outcomes' development, which included interface mock-ups, schematics, and functional testable concepts in addition to concepts. Only a single SME, however, thought the outputs' utility was only passably good.

Future Study: More investigation might be beneficial for a few more situations. Firstly, throughout a two-day period, the invention challenge primarily benefited from the expertise and labor of university undergraduates. To enable the innovation challenge to tackle deeper issues and produce outcomes of greater quality, more research is required to determine the extent to which the same format could be scaled up to mobilize researchers and/or specialists performing as solvers, and under what circumstances (notably, what inspiring drivers). How many SMEs could be funded simultaneously in a single contest and the extent to which economies scaling may be sought while hosting simultaneous challenges in various fields will be clarified by more research. This would allow the scalability of innovation challenges as instruments for policymaking to be used in bigger regions to be verified.

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2

GREEN BUDGETING AND LONG-TERM FISCAL SUSTAINABILITY

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Abstract

The increase in population, along with the effects of urbanization and industrialization, has led to an increase in environmental problems, and globalized environmental issues have become a topic of discussion worldwide. Ineffective and unsustainable use of natural resources has resulted in the environment's inability to regenerate itself. Countries, in their efforts to boost economic growth, especially through industrialization, should be aware of the potential harm they may cause to the environment and should integrate economic and environmental policies to achieve harmony between the two. This necessity has given rise to the approach of environmentally sensitive budgeting. Countries started adopting green budgeting, aiming to influence their income and expenditures through various policy instruments. Green budgeting allows policymakers to comprehend the measurable impacts of their decisions on the environment. It also ensures prioritizing the conservation of natural resources, making resource management more integrated and efficient within authorities. The fundamental tasks of countries in protecting the environment and minimizing the damages caused by economic activities are directed toward incorporating environmental taxes into the tax system through green budgeting. The study queries the concept of green budgeting within the framework of fiscal sustainability. In this context, the study aims to survey the fiscal efficiency of green budgeting, underscoring several environmental issues and addressing the relationship between the economy and the environment.

Keywords: Budget, Green Budgeting, Environmental Policy, Fiscal Sustainability

Jel Codes: Q00, Q56, O23

1. Introduction

One of the most significant issues of the century is environmental problems arising from population growth, urbanization, and industrialization. The harm caused by human activities prevents nature from renewing itself. There is a need for a comprehensive

management system to reduce these problems and ensure the sustainability of the environment. The increase in industrialization and urbanization accelerates globalization, negatively affecting the environment. The growth of the world population and technological advancements have accelerated the world economy. However, this growth has led to an increase in harmful waste due to the inefficient use of natural resources.

It is understood that the greatest harm to the environment is caused by economic activities such as industrialization and production. Resorting to economic activities is crucial to solving these problems. It is critical for governments to clearly articulate their strategic priorities and goals related to the environment and climate to provide information for fiscal planning. These strategies and plans guide tax and spending decisions to support the achievement of national goals (OECD, 2020a; Giritli and Koçak, 2021).

The ongoing COVID-19 crisis since 2019 provides an opportunity to address the structural weaknesses of our economies and societies and build a more robust foundation. However, rapid implementation of economic improvement packages during a crisis period can harm the environment. Therefore, exit plans from this crisis offer a chance to start the economy on a stronger, fairer, and more sustainable basis. In this context, green budgeting and system integration are of great importance (Boone, 2020).

Green budgeting aims to bring a comprehensive political governance approach to local sustainability. Green budgeting supports the evaluation of the compatibility of public expenditures with environmental and climate goals by assisting in budget management. This research aims to examine green budgeting methods developed to ensure fiscal sustainability and their applications in various countries, providing new evidence. It aims to contribute to countries' approaches to green budgeting by promoting best practices in green budgeting applications. The research will focus on the following questions: How can the budget be made "green," and what methods can be used? Can green budgeting applications yield effective results? How can green budgeting assist in the fight against climate change?

2. A New Icon in Sustainable Budget Approach: Green Budgeting

Green budgeting not only impacts the present but also ensures a guarantee for future generations to live in a more sustainable environment. This approach prioritizes not only humans but also all living beings and nature. Therefore, making the budget green means integrating these aspects into every aspect of the economy and ensuring the judicious use of natural resources to prevent waste and unwanted utilization.

Green budgeting is important in ensuring that climate and environmental impacts are adequately considered in policy-making. This involves not only assessing the effects of specific climate and environmental measures but also evaluating the impacts of other policies, such as spending, taxation, and regulation, on climate and environmental outcomes. Since coping with limited resources for development is one of the greatest challenges societies face in the 21st century, green budgeting is crucial, and monitoring its results and understanding its impacts are also important (Cremins and Kevany, 2018).

Green budgeting provides a framework for governments to develop and assess fiscal policies, encompassing taxation and spending measures. The aim is to shape individual and business behaviours in alignment with climate and environmental objectives, discouraging detrimental activities. It enhances the transparency of the overall environmental impacts of budgetary choices, systematically examines current and potential budget measures and policies, and integrates an environmentally sensitive approach into the budget framework. Green budgeting necessitates evidence-based, consistent, reliable, transparent, and fiscally sustainable practices, in harmony with long-term social and economic perspectives, and requires shared commitment across the entire government (UNICEF, 2022). To enhance the efficiency of green budgeting, certain stages and key points are crucial (OECD, 2022:3).

i. Identification of green outcomes: Adoption of outcome-based approaches informs governments about potential effects, including climate and environmental impacts, allowing informed choices for budget proposals that contribute to a government initiative for net-zero emissions.

ii. Integration of green impacts into all government policies: Considering the potential impacts of policies on climate and the environment requires a comprehensive approach to policy development, accommodating existing policies and budget proposals to align with medium and long-term budget impacts.

iii. Alignment of relevant government commitments for budgeting: Finance ministries should determine the existing mechanism to identify and align the relationship between approved parliamentary budgets and carbon budgets. This includes commitments made by parliament that could impact the budget.

iv. Consistent application of a framework to prioritize activities for climate and environmental goals: Clear frameworks and

consistent criteria inform prioritization and decision-making, helping governments identify reforms with the greatest impact by stockpiling state expenditures according to climate and environmental goals.

v. Separate analysis of green budget proposals for appropriateness: Even with funding for climate and environmental goals, budget disciplines must analyze proposals based on principles within a funding envelope, as measures such as carbon taxes and green bonds have been introduced to advance these goals.

vi. Utilization of existing budget frameworks to implement green budgeting: Integration of climate and environmental perspectives into existing frameworks requires expertise within a finance ministry, impacting capacities needed for advice preparation and budget management.

vii. Strengthening accountability and transparency for the implementation of green initiatives: Finance ministries play a role in preparing guidance on responsibilities regarding public spending, ensuring government ministries and agencies are accountable for budget funds used for programs contributing to green goals.

3. The Definition, Scope, and Purpose of Green Budgeting

Green budgeting is an environmental management system specifically organized in line with the needs of local administrations. Its main purpose is to provide decision-makers, parliament, and the public with a clear idea about the potential environmental impacts of budgeting options, aiming to evaluate the long-term policy effects and safeguard the interests of future generations while incorporating issues related to resource sustainability. Green budgeting is also referred to by various names such as environmentally sensitive budgeting, ecological budgeting, or environmental budgeting (Kılıçer, 2016; OECD, 2019).

Among the reasons for using this approach are its support for local government officials in efficiently utilizing resources while being environmentally conscious, integrating sustainable development principles into national policies and programs, encompassing various departments and stakeholders involved in using natural resources, and maintaining political attention and commitment to the environment and natural resources in the long term.

Green budgeting, by consistently staying on the political agenda, successfully eliminates the highs and lows of policies related to ecology. Additionally, it assists local governments in continually evaluating resource efficiency and promotes continuous improvement. It supports transparency and accuracy, allowing local governments to demonstrate their commitment to enhancing efficiency and ecological sustainability. Green budgeting provides a framework based on needs and principles of ecological sustainability, empowering decision-makers to strengthen integrated fiscal and environmental budget management and serving as a foundation for addressing issues from local to global levels.

4. Historical Course of Green Budgeting

As the population and urbanization have increased over time, coupled with widespread industrialization, environmental pollution has become a significant concern. The concept of sustainability, which gained importance after the 18th century, brought green budgeting into the spotlight. The concept of green budgeting was officially introduced at the Stockholm Conference and later became a crucial topic in international discussions such as the United Nations Environment and Development Conference, the World Summit on Sustainable Development, and the Kyoto Protocol (Tokoğlu, 2013). Green budgeting came to the forefront in 1994 with the signing of the Aalborg Commitments. The green budget approach was formulated by the International Council for Local Environmental Initiatives (ICLEI) as part of its commitment to fostering local initiatives for global sustainability. The objective is to endorse cities that are sustainable, adaptable, resource-efficient, committed to biodiversity conservation, and characterized by low carbon emissions (Kılıçer, 2017b).

Various municipalities have participated in activities related to the implementation of green budgeting, such as the Climate-Friendly Cities Campaign led by ICLEI, the Mayor's Commitment supported by ICLEI, the Agenda 21 applications, localization of Local Agenda 21s, and the implementation of Local Environmental Action Plans and Climate Change Action Plans (Kılıçer, 2017a). ICLEI aims to promote a sustainable green economy for local and regional governments through sustainable public procurement, support for fossil fuel-free energy transformation, and the development of low-emission, climate-resistant, environmentally friendly development strategies. Thus, it aims to bring environmental sustainability from the local to the global level.

5. Cycle and Functioning of Green Budgeting

Green budgeting is an environmental management system based on resource management and political and social participation. The method mimics the cyclical approach of local fiscal budgeting, developed and tested for local authorities, making it the first global environmental management system that emphasizes the specific needs and requirements of policy-driven organizations (ICLEI, 2016).

The administrative procedures of the process are crucial in the establishment of the green budget. At this stage, city planning and management structures should be reviewed and established. Ideally, an interdisciplinary team supported by civil society representatives, non-governmental organizations, and other local interest groups should have overall responsibility for the management and implementation of the green budget. Additionally, reporting structures and frameworks, as well as management directives and frameworks for internal controls, should be developed (Pojar, 2022).

After the establishment of the green budget, the preparation phase follows, forming the basis of the budget cycle. Actors actively involved in the implementation and preparation of the green budget create the main documents and implementation plans of the green budget during this phase. This process allows for the prioritization of sustainability policies, defining sustainability policies with a short set of understandable indicators for each quantitative long and medium-term goal (Kılıçer, 2016).

In fiscal budgeting, the preliminary report accompanies the budget, explaining factors that regulate changes in the budget framework, especially in revenue and expenses, planned investments, and factors regulating fiscal impacts in the coming years, similar to green budgeting. Green budgeting adopts the function of the preliminary report and expands its use. The preliminary report, provides the environmental situation, emerging legal or policy frameworks, and trends that individuals can compare with their planning programs, and allows experts to produce realistic values for budget estimates (ICLEI, 2016). The preliminary report assists in the preparation of the main budget. Depending on the current environmental situation, departments in municipalities identify the natural resources and objectives they need for budget planning and submit them to the council for approval in the preparation stage of the main budget. The creation of the main budget is the result of the preparation stage and management (Pojar, 2022).

Following the council's approval, programs and measures are taken to meet environmental goals. Actions to achieve the goals, environmental costs, and

benefits are determined. Implementation measures and compliance with goals are monitored and accounted for. At the beginning of the budget year, an account is opened for each indicator of the environmental budget. After creating the accounts, it is crucial to track the data and monitor their effects regularly because this stage indicates whether the components of the environmental budget are adhered to (European Commission, 2022).

The results of the budget period are sent back to political decision-makers through a report showing the environmental budget balance and the achievements and performance of policies and programs. Two additional documents complement the snapshot of the sustainability level. The first is the Environmental Assets Declaration, showing the amount of natural capital available to the municipality, similar to a savings account. The second is the Sustainability Analysis, which provides a general overview of how efficiently the municipality uses natural resources while serving citizens. The environmental budget at the end of the year evaluates the local process and results through an internal audit, determines how close it is to achieving goals, and approves the environmental budget results, which will affect the implementation of the current green budget and serve as a guide for the preparation of the green budget for the next year. The final stage of green budgeting is the restart of the previous cycle based on recorded progress, where goals and results may change (Kılıçer, 2016).

6. Expenditures and Revenues in Green Budgeting

The increase in industrialization and globalization has also increased environmental issues; hence, environmental policies have become essential to combat these issues. Green budgeting, enabling the implementation of environmental policies, has various fiscal instruments, which vary from country to country. Both market economies and public economies resort to different instruments and methods in this direction. The fiscal instruments used by the public sector include environmental taxes, fees, subsidies, and tax differentials. Environmental taxes are further divided into carbon taxes, energy taxes, solid waste taxes, packaging taxes, and transportation taxes, and these taxes are treated differently in each country (Ertekin and Dam, 2020). In addition to fiscal instruments, legal instruments such as laws, standards, prohibitions, and regulations are also used (Aydilek and Şen, 2015:46).

In the context of increasing targets for greenhouse gas emissions, carbon taxation is defined as a significant means of influencing societal behaviour and change toward environmental and climate goals. Other measures have been developed to address broader social goals and facilitate and support achieving targets, such as subsidies for fossil fuel and tax expenditures.

However, it is essential to be cautious as these measures may inadvertently contradict the goals of carbon taxation (Airgeadais, 2022). In some cases, spending policies can be used to facilitate the implementation of green tax policies. While green public expenditures can support recovery, it is unrealistic for all incentive spending to go directly to green projects, and there may be trade-offs between environmental, economic, and social goals. The existence of competing goals and the difficulty of explicitly greening all incentive spending highlight the need for additional instruments to manage trade-offs between goals (OECD, 2020b).

7. Paris Collaboration in Green Budgeting: Climate Change and Long-Term Fiscal Sustainability

Green budgeting, as the inaugural global and cross-sector initiative of its kind, is represented by the Paris Collaboration, which assists governments in integrating environmental sustainability commitments and fostering green growth within budget and policy frameworks (OECD, 2019). The Paris Agreement, a pivotal legal instrument in the battle against global warming and climate change, was universally adopted in December 2015 during the 21st Conference of the Parties (COP21), also referred to as the Paris Climate Summit (Pınarcıoğlu, 2018). The Paris Climate Package, encompassing both the Paris Agreement and COP21 decisions on implementation, emphasizes the inclusion of local and sub-national governments in climate action, with 77 national leaders signing the agreement in 2015. The agreement came into effect through national processes, necessitating approval from at least 55 parties representing a minimum of 55% of global emissions (ICLEI, 2016).

The primary objectives outlined in the second article of the Paris Agreement are as follows:

i. Significantly reducing the increase in global average temperature to well below 2°C from pre-industrial levels and striving to limit the increase to 1.5°C above pre-industrial levels, recognizing that this would significantly diminish the risks and impacts of climate change.

ii. Enhancing adaptive capacity, promoting climate resilience, and fostering low greenhouse gas emission development in a manner that does not jeopardize food production.

iii. Aligning financial flows with a trajectory toward low greenhouse gas emissions and climate-resilient development (UNFCCC, 2015).

The preamble of the Paris Agreement recognizes the imperative of fostering stronger partnerships with stakeholders and commits to engaging national and local governments in capacity building, adaptation, and addressing loss and damage. National governments have acknowledged the role of cities and regions in their Nationally Determined Contributions (NDCs), which are pivotal to the Paris Agreement and delineate the climate actions nations intend to pursue for a low-carbon and resilient future (ICLEI, 2016).

In a 2019 analysis evaluating G20 member countries' progress toward the greenhouse gas emission targets outlined in their NDCs under the Paris Agreement, the following findings emerged:

- The implementation of NDCs by numerous G20 countries would lead to lower emissions than the current policy scenario, underscoring the necessity for additional policies to attain the NDC targets.

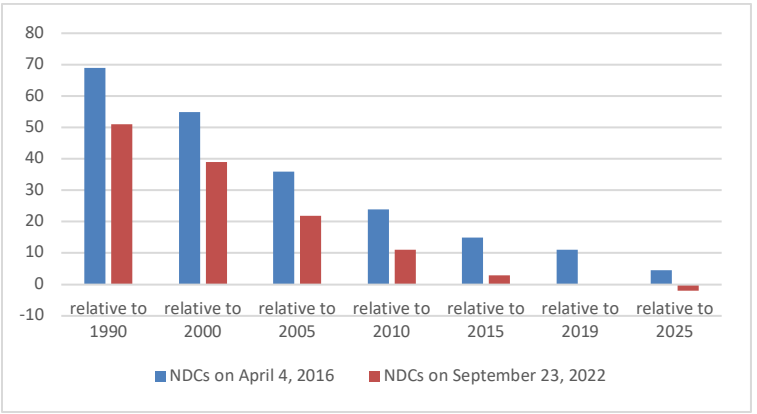
- Recent studies indicate that six G20 members (China, India, Indonesia, Japan, Russia, and Turkey) are either on track to achieve or surpass their unconditional 2030 targets based on existing policies.

- The uncertainty surrounding future emission reductions poses challenges in determining whether Brazil, Mexico, and Saudi Arabia are progressing toward meeting their NDCs. Enhanced data and increased national efforts are essential for effectively monitoring progress.

- The seven remaining G20 economies (Argentina, Australia, Canada, EU28, South Africa, the Republic of Korea, and the United States) are considered to require advanced and innovative climate and energy policies. This is because their anticipated reductions by the target year do not align with the specified reductions in their Nationally Determined Contributions (NDCs). Possible policy examples include initiatives aimed at decarbonizing the energy sector (enhancing energy efficiency in industries, buildings, and transportation, boosting investments in renewable energy technologies, and reducing coal usage) and/or achieving reductions in non-energy sectors (such as afforestation, curtailing methane emissions from oil and gas production, and minimizing hydrofluorocarbon or hydrofluorocarbon emissions) (den Elzen et al., 2019).

A report from the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) released on September 23, 2022, based on NDC information from 169 parties covering 94.9% of global emissions in 2019, provides the following summarized results: Parties that reported new or updated NDCs are estimated to have had total greenhouse gas emissions of 45.6 billion tons of CO2 equivalent in 2019. The total greenhouse gas emissions resulting from the implementation of NDCs are projected to be approximately 46.4 billion tons in 2025 and 45.6 billion tons of CO2 equivalent in 2030. In comparison to the 2010 level, total greenhouse gas emissions from parties are estimated to be 12.3% higher by 2025 and 10.5% higher by 2030.

Figure 1. Estimated Emission Levels by Years



Source: UNFCCC, 2022:27.

The complete implementation of the latest Nationally Determined Contributions (NDCs), including all conditional elements, is projected to result in a 3.6% reduction in emissions by 2030 compared to 2019 levels. However, if conditional elements are excluded, the implementation of these NDCs is expected to lead to a 3.1% increase in emissions by 2030 compared to 2019. Achieving peak emission reduction levels in these scenarios requires the implementation of conditional elements, which heavily rely on access to advanced fiscal resources, technology transfer, technical cooperation, and capacity development support. The availability of market-based mechanisms is also deemed crucial.

Approximately 97% of participating parties have identified local mitigation measures as essential instruments for achieving NDC reduction goals, particularly in priority areas such as energy supply, transportation, buildings, industry, agriculture, and waste. However, there is a lower

frequency of measures in the industrial sector (47% compared to 74-92% for other priority areas), despite it being the second-largest global source of greenhouse gas emissions and experiencing the second-highest rate of emission increase among priority areas. Plans with mutually beneficial outcomes for economic and climate goals encompass activities like afforestation, climate-smart agriculture, food waste reduction, vertical farming, adaptation of coastal ecosystems, protection plans for designated areas, nature-based solutions, increasing the share of renewable sources in energy production, and improving energy efficiency. Additionally, transitioning to a circular economy, which includes better waste management, fuel switching, and fuel price reforms in the transport sector, is also integral to these plans.

Climate change is anticipated to impact crucial economic sectors, particularly altering energy demand with implications for heating and cooling requirements, thereby influencing supply based on resources, technologies, and geographical locations. Parties aim to bolster infrastructure resilience by employing risk assessments, updating building codes and durability standards, enhancing infrastructure, providing relevant training, and utilizing nature-based solutions. In the energy sector, initiatives involve analyzing and planning for impacts, conserving and diversifying hydroelectric resources, mainstreaming climate risk in sectoral policies, utilizing fiscal instruments and insurance, shifting towards sustainable tourism, and safeguarding key locations such as winter and coastal resorts. Transportation adaptation measures include reinforcing risk assessment using geographic information systems and developing eco-friendly road infrastructure. In cultural heritage, efforts focus on refining climate risk assessments, devising specific adaptation strategies, encouraging investment in heritage projects with adaptation criteria, offering training for heritage experts on climate change planning, and advocating for integrated management of natural and cultural assets. In the mining and industrial sectors, adaptation measures comprise constructing climate-resilient industrial facilities and implementing environmentally friendly mining practices.

The adverse impacts of climate change are anticipated to include a heightened risk of insufficient nutrition due to decreased food production, as well as increased incidents of injuries, diseases, and fatalities resulting from more severe heatwaves and fires. Additionally, there is an increased likelihood of diseases related to food and water. It is imperative to strengthen the capacity of health institutions to address the health consequences of climate change, promote information sharing, and raise awareness. Parties involved should concentrate on enhancing prevention, surveillance, and monitoring of diseases sensitive to climate variations. This

involves providing education and training to health professionals and communities, along with conducting vulnerability assessments and mapping for safety. The United Nations Environment Program (UNEP) and its collaborators, including the International Methane Emissions Observatory and the UNEP Climate and Clean Air Coalition (CCAC), have launched a global assessment on methane to mitigate emissions. Methane emissions, contributing to a significant portion of the climate crisis, could potentially be reduced by up to 45% in the current decade. This reduction could prevent around 0.3°C of global warming by 2045, leading to benefits such as reduced air pollution, protection of crops, and aiding in achieving the 1.3°C target outlined in the Paris Agreement (UNEP, 2021).

8. Climate Crisis: Green Budgeting and Tax Policy İnstruments for a Better Future

The most commonly used instrument in green budgeting is government expenditures. In addition to government expenditures, all fiscal instruments, including taxes, fees, pricing externalities, and subsidies, have the potential to influence progress toward green goals. Green budget labeling can shed significant light on how fiscal policy choices affect green objectives as a whole, to the extent that information about these fiscal policy choices is available. However, the effectiveness of green budget labeling is also influenced when transparency on these items is insufficient (OECD, 2021a). İnstruments such as green budget labeling can be useful in helping governments determine how budget items align with stated green goals. In some budget management systems, it can be challenging to monitor how budget policy intersects with overlapping goals. In contrast, green budget labeling allows countries to identify areas of spending and revenue that either contribute to or harm green goals. The information obtained from labeling helps improve the consistency between government budget measures and green goals while providing a useful evidence base for enhancing transparency in government budget policy (OECD, 2020b).

As depicted in Table 1, green budgeting instruments can be categorized into four main groups: voluntary mechanisms, state regulations, public expenditures, and government taxation. Voluntary mechanisms encompass actions taken by state-owned enterprises and households to adopt behavioral measures aimed at increasing environmental awareness. State regulations involve regulatory measures enacted by the government as the legislative authority. Public expenditures within subsidies encompass tax incentives, preventive and corrective public spending, direct transfer payments, and funding for the advancement of clean technologies. Government taxation includes revenue collection through taxes for

environmental purposes, fees, and other public income sources (Yapıcı, 2019:230).

Table 1: Policy İnstruments for Green Budgeting

Policy Instruments	**Themes**
Voluntary Mechanisms	Promotion, persuasion, incentives, and moral appeal
	Information, education, and training
	Empowerment of third parties (Non-Governmental Organizations)
State Regulations	Direct regulations (legislation and standards)
	Planning (land use and resource management)
	Emissions and land standards
	Empowerment of third-party regulators
Public Expenditures	Government programs
	Public infrastructure development
	Support-oriented fiscal incentives (subsidies, tax allowances, and grants) For example, research and development, environmental technology, resource management, environmental protection
Public Revenues	Taxes, fees, and charges

Source: Gale and Barg, 2013:3-4; aktaran Yapıcı, 2019:231.

While tax expenditures are a crucial area where information is generally limited, their comprehensive impacts on green goals, such as tax advantages for fossil fuels, vary significantly in terms of reporting quality and scope among countries. To emphasize the alignment of fiscal policy with green objectives, governments need to significantly enhance reporting on tax expenditures. Budgeting is not the sole public policy intervention supporting progress toward climate and environmental goals. Other interventions may include regulations to better support achieving national climate and environmental goals, evaluating, modifying, or introducing market-based policy instruments or legislation, and utilizing infrastructure and public procurement policies (OECD, 2021a).

Various instruments can be employed in the implementation of green budgeting. The absence of a uniform global approach to green budgeting is evident, and Table 2 illustrates the diversity of green budgeting instruments across countries. Looking at Table 2, environmental impact assessment appears to be the most common, while green budget labeling is the least utilized. In terms of the variety of green budgeting instruments, Colombia and Norway are considered pioneers.

Table 2: The Use of Instruments Widely Employed by Countries Implementing Green Budgeting

Country	Environmental Impact Assessment (Individual Measures)	Environmental Cost-Benefit Analysis (Individual or All Measures)	Carbon Assessments	Carbon Pricing Instruments (Including Fuel and Carbon Taxation, Emission Trading Systems)	Environmental Tax Reform	Green Budget Labeling
Austria	•		•			
Canada	•	•		•		
Colombia	•	•	•	•	•	•
Denmark	•	•	•		•	
France	•	•	•	•		•
Ireland	•	•	•	•	•	•
Italy	•	•	•			•
Luxembourg						•
Mexico						•
Netherlands	•	•	•	•	•	
Norway	•	•	•	•	•	•
Portugal	•			•	•	
Sweden	•	•	•	•	•	
United Kingdom	•	•	•	•	•	
Total	12	10	10	9	8	7

Source: OECD, 2021b.

9. Conclusion

Rapid population growth, urbanization, and industrialization have led to an increase in environmental problems. The rise in environmental issues has adversely affected the self-renewal capacity of the environment, prompting the search for solutions to combat these challenges. In this context, the concept of sustainable development has come to the forefront. Both public and market economies resort to different instruments and methods to address environmental issues. Instruments employed by the public sector include environmental taxes, fees, subsidies, recycling, and tax differentials.

Green budgeting is a systematic and sustainable environmental management system that allows both environmental and monetary values

to work together. It makes the overall environmental impacts of individual and commercial behaviours more transparent. For the effective functioning of green budgeting in practice, it is essential to integrate environmental impacts into all government policies and align them with relevant government commitments for budgeting. Additionally, a consistent foundation must be established to avoid conflicting with climate and environmental goals. To assess and enhance the effectiveness of the budget, it is crucial to analyze the proposals and results of green budgeting and strengthen accountability and transparency.

Green budgeting, which has found application and achieved positive results in various countries around the world, aims to bring environmental sustainability from the local level to the global level by focusing on local governance. The system is constantly renewing and improving itself. Considering the examples and results of green budgeting in practice, it should be promoted more widely. While implementing green budgeting, sustainability should also be incorporated into city planning, transportation, and development plans. In addition, public transportation, renewable energy, and food production are crucial environmental issues, and all of these should be integrated into the system. For the application to be more effective, local organizations and citizens should also be involved, making the system more efficient and sustainable.

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PART II

ECONOMICS

3

EVALUATING TURKEY'S MACROECONOMIC AND VULNERABILITY INDICATORS DURING AND AFTER THE COVID-19 PANDEMIC

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Abstract

The study aimed to examine the effects of the pandemic and post-pandemic period on Turkey using macroeconomic and vulnerability indicators. To this end, the period of analysis was taken as the period from 2018 to 2021 and the first two quarters of 2022 marked by the declining effects of the pandemic. According to the macroeconomic data collected, Turkey achieved economic growth during the pandemic period; however, the growth did not substantially reduce unemployment rates. According to the vulnerability indicators of Turkey, there was an increase in the indicators due to the impact of the pandemic crisis in 2020. With the fading effects of the pandemic in 2021, the global economy recovered to some extent, thereby boosting foreign demand. The Turkish economy increased its growth rate in 2021 due to the rise in domestic/foreign demand. Thus, Turkey's vulnerability indicators, although slightly, improved in 2021. In early 2022, the Russia-Ukraine war broke out, and developed economies abandoned expansionary policies due to rising inflation, while China maintained its zero COVID policy. These developments have raised energy and commodity prices. On the other hand, the "New Economic Model" implemented in Turkey as of December 2021 to reduce inflation, create a current account surplus, and increase production/employment has led to a deterioration in macroeconomic indicators, contrary to expectations. This situation is an indication that Turkey's macroeconomic vulnerability will increase considerably throughout 2022.

Keywords: COVID-19, Macroeconomics, Turkish Economy, Economic Fragility.

Jel Codes: I15, E50, E60

1. Introduction

COVID-19 outbroke in Wuhan, China in December 2020 and spread all over the world. It was thus classified as a pandemic by the World Health Organization on 11 March 2020. To control the global pandemic, countries closed their borders to each other and increased public and health expenditures, while many manufacturing sectors reduced production activities. Due to the decreasing domestic/foreign supply and demand conditions, the pandemic soon turned into a global economic crisis. The global pandemic crisis is unlike former global crises such as the 2008 global crisis. Because the global pandemic crisis has affected not only low- and middle-income economies but also all developed and developing economies. Additionally, the COVID-19 pandemic crisis has shown up at a time when the world is much more economically integrated, thereby resulting in supply and demand shocks. Thus, the COVID-19 pandemic has turned into a global crisis by affecting all world economies through supply chains (Fernandes, 2020, p.5).

The global economy has shrunk due to reductions in consumption and investment expenditures worldwide, weakening domestic/foreign trade volume, and declining production activities, which all have been caused by the global pandemic crisis. According to the report of the International Monetary Fund (IMF) in October 2021, the world economy grew by 2,8% in 2019 but contracted by 3,1% in 2020. According to the same report, developed economies that grew by 1,7% in 2019 contracted by 4,5% in 2020. Emerging market and developing economies that grew by 3,7% in 2019 contracted by 2,1% in 2020 (IMF, 2021, p.6). The contraction in the world economy has also led to an increase in unemployment rates. According to the August 2021 report of the International Labor Organization (ILO), the unemployment rate worldwide increased by 1,1% compared to 2019 and amounted to 6,5% in 2020. The unemployment rate in lower-middle-income countries amounted to 6,3% in 2020 with an increase of 1,2% compared to 2019. The unemployment rate in upper-middle-income countries amounted to 6,7% in 2020 with an increase of 0,7% compared to 2019. The unemployment rate in high-income countries amounted to 6,8% with an increase of 2% compared to 2019 (ILO, 2021, p.2). According to the IMF report of October 2021, the world trade volume was 0,9% in 2019 and decreased to 8,2% in 2020 (IMF, 2021, p.6).

The global pandemic crisis has exerted greater impacts on developing economies. Because the foreign trade deficits arising from the import-based production structure of these economies have increased even more with the decreasing domestic/foreign demand due to the impact of the global

pandemic crisis. Additionally, the expansionary monetary policy and expansionary fiscal policy implemented by both developed and developing countries to reduce the negative effects of the pandemic crisis on the economy have caused the budget balance of developing countries to deteriorate. In addition to the increasing macroeconomic problems of developing countries due to the impact of the global pandemic crisis, there have been significant contractions in financial markets. In other words, the crisis has caused high capital outflows from the financial markets of these countries. This situation resulted from the inability of investors to predict and choose the path to follow due to the uncertainty of the pandemic (Oral and Sevinç, 2020, p. 60).

As a developing country, Turkey implemented, like other countries, an expansionary monetary policy to mitigate the negative effects of the pandemic on its economy, and the CBRT reduced interest rates. Thus, the world economy shrank by 3,1% in 2020, while the economy of Turkey grew by 1,8%. However, the expansionary monetary policy implemented has led to a further increase in already high inflation rates and an increase in loans. Consequently, the foreign trade deficit in Turkey has grown even further, the reserves of the CBRT have melted, and the purchasing power of the Turkish Lira has decreased. To put it differently, the policy implemented has brought economic growth to Turkey; however, it has resulted in high inflation, increased foreign exchange needs, and large external debts, thereby heightening Turkey's macroeconomic vulnerability (TUSIAD, 2021, p. 5).

Despite the emergence of new mutations of the coronavirus in 2021, rapid progress in vaccination has reduced the uncertainties of the pandemic. Thanks to the acceleration of vaccination, restrictions imposed in 2020 to prevent the spread of the pandemic have gradually lifted in 2021, especially in developed countries. Thus, in 2021, the world economy has rebounded from the worst stages of the pandemic crisis. Countries that have quickly adapted to new working practices, supported households and industries through economic policies, fought the pandemic successfully, and granted widespread access to vaccines have recovered better than expected. The global economic outlook has improved rapidly, thanks to China's success in containing the epidemic, as well as additional financial support in the United States (T.C. Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı [Republic of Turkey Presidency of Strategy and Budget], 2021, p.1). As a matter of fact, according to the IMF report of October 2022, the world economy grew by 6% in 2021. In 2022 when the effects of the pandemic gradually diminished, developed countries, especially the US, abandoned expansionary policies on the grounds of rising inflation. However, the Russia-Ukraine war that started in February 2022 led to an energy crisis in

Europe (IMF, 2022, p.XVI). On the other hand, the improvement in global trade volume, which started to recover in the last two quarters of 2020, continued in 2021. According to the IMF report of October 2022, the world trade volume was 10,1% in 2021. In 2022, world trade volume is projected to be 4,3% due to supply delivery disruptions caused by the Russia-Ukraine war and China's zero COVID policy (IMF, 2022, p. 15). According to the same report, the world economy, which grew by 6% in 2021 as a result of the developments in 2022, is projected to grow by 3,2% in 2022 and 2,7% in 2023.

In the period from November 2020 to March 2021 marked by the declining effects of the global pandemic crisis in Turkey, the correct policies implemented by the CBRT to combat inflation enhanced foreign investors' confidence in the country despite the crisis. This situation boosted the inflow of foreign currency into the country. Consequently, the Credit Default Swap (CDS) of Turkey fell from 550 to 300 basis points, and the Turkish Lira gained value. However, the reshuffle of the CBRT management in November 2020 and then March 2021 and the consecutive interest rate cuts in the September-December period despite rising inflation rates in the country have added to uncertainties in the country. Additionally, the "New Economic Model" put into force in Turkey on 30 December 2021 to reduce inflation, create a current account surplus, and increase production/employment has led to a deterioration in macroeconomic indicators, contrary to expectations. This situation has led to a shake-up of foreign investors' confidence in the country, an increase in the outflow of foreign currency from the country, a substantial depreciation in the Turkish Lira, and a rise in CDS (TUSIAD, 2021, p.5). Against this background, this study aimed to analyze Turkey's macroeconomic and vulnerability indicators during the pandemic and post-pandemic period. To this end, the period of analysis was taken as the period from 2018 to 2020 and 2021 and the first two quarters of 2022 marked by the declining effects of the pandemic. In line with the data obtained, the study also offered policies to improve Turkey's macroeconomic performance and reduce its vulnerability.

2. Analysis of Turkey's Macroeconomic Indicators

This part assesses the macroeconomic effects of the pandemic in Turkey before the pandemic, during the pandemic, and during the period when the effects of the pandemic diminished.

2.1. Pre-Pandemic Period

2019 witnessed a slowdown in global economic activities due to trade disputes between the USA and China, problems between the European Union (EU) and the UK in the Brexit process, macroeconomic tension in developing countries, low productivity and ageing population in developed countries, and negative conditions in economic activities in some developing economies such as India (TOBB, 2020, p. 3). The local elections in March 2019 in Turkey and geopolitical developments together with the decreasing global economic activities heightened uncertainties in the Turkish economy. As a result of these developments, the growth rate of real GDP decreased by 2% points in 2019 compared to the previous year, amounting to 0,89%. Despite these uncertainties, the interest rate reduction implemented by the CBRT increased domestic demand, and the increase in exports made a positive contribution to growth (TOBB, 2020 p. 45). This also affected the unemployment rate. In 2019, the unemployment rate rose to 13,67% with an increase of 2,8% points compared to the previous year. The inflation rate was 15,18% in 2019 with an increase of 2,9% points compared to 2018. The reason for the increase in the inflation rate was that the reduction of interest rates by the CBRT increased domestic demands and the rise in the exchange rate of the dollar to the Turkish Lira increased production costs (see Table 1).

Table 1: Macroeconomic Indicators of Turkey (2018-2021)

Years	Reel GDP (Thousand TL)	Real GDP growth rate (%)	Unemployment rate (%)	CPI (%)	Exchange rate of dollar	Export (Million $)	Import (Million $)	Current account balance (Million $)
2018	1.756.493.104	2,98	10,89	12,28	4,82	178.909	219.635	-21.744
2019	1.772.118.604	0,89	13,67	15,18	5,68	182.246	198.997	5.315
2020	1.803.902.464	1,79	13,92	16,33	7,02	168.387	206.250	-35.018
2021	2.009.486.002	11,35	12,00	19,60	8,90	187.840	253.999	-7.255

Source: CBRT Electronic Data Delivery System (EVDS in Turkish acronym)

Exports grew by 1,86% in 2019 compared to the previous year, amounting to $182.246 million. The increase in exports was caused by the exchange rate of the dollar to the Turkish Lira, export incentives, and diversification in export markets. However, Turkey's most important trading partners, i.e., EU countries and the USA, and the Russian Federation could not achieve a recovery in their economies; thus, the impact of the contraction in foreign demand caused the increase in exports to be slight. In 2019, imports decreased by 3,4% point compared to 2018 and amounted to $198.997 million due to the slowdown in economic activities and the decreasing domestic import demand. These developments all improved the

foreign trade balance in 2019, thereby causing the current account deficit to grow (TOBB, 2020 p.134) (see Table 1).

Table 2: Foreign Direct Investment/Portfolio Investment Inputs and Outputs for Turkey (2018-2021) (Million US dollars)

Years	FDI net asset	FDI net liability	PI net asset	PI net liability	FDI net access	FDI net access (%)	PI net access	PI net access (%)
2018	3.587	12.822	1.092	176	-9.235		916	
2019	2.943	9.266	6.019	3.256	-6.323	-31,5	2.763	201,64
2020	3.240	7.939	2.902	-6.663	-4.699	-26	-3.761	-236,12
2021	6.447	13.323	-707	-3.898	-6.876	46	-4.605	22,44

Source: CBRT EVDS

Looking at the net inflows of foreign direct investments (FDI) in 2019, the net inflow of FDI dropped by 31,5% compared to 2018 and amounted to $6.323 million. In, 2019 there was an outflow in portfolio investments, and the outflows of portfolio investments increased by 201,64% compared to the previous year, amounting to $2.763 million (see Table 2).

Table 3: Gross External Debt Stock (2018-2021) (Million US dollars)

Indicators	2018	2019	2020	2021
Short term	93.492	96.578	113.966	121.580
% Change	-15,0	3,3	18,0	6,7
Goverment	20.828	23.444	24.892	22.219
% Change	7,2	12,6	6,2	-10,7
Private	66.750	64.682	67.730	73.309
% Change	-24,8	-3,1	4,7	8,2
Short term/total gross external debt	21,9	23,2	26,3	27,5
Long term	333.261	319.186	319.004	321.002
% Change	-2,2	-4,2	-0,1	0,6
Goverment	122.390	137.734	153.518	157.677
% Change	3,9	12,5	11,5	2,7
Private	210.871	181.452	165.486	163.324
% Change	-5,5	-14,0	-8,8	-1,3
Long term/ total gross external debt	78,1	76,8	73,7	72,5
Total	426.753	415.764	432.970	442.582
% Change	-5,4	-2,6	4,1	2,2

Source: CBRT EVDS

In 2019, the external debt stock decreased by 2,6% compared to the previous year. $415.764 million has been. Looking at the maturity composition of the external debt stock, short-term debts increased by 3,3% in 2019 compared to 2018 and amounted to $96.578 million. The share of short-term debts in the total debt stock rose to 23,2% in 2019. Long-term debts dropped by 4,2% in 2019 compared to the previous year,

amounting to $319.186 million. The share of long-term debts in the total debt stock decreased to 76,8% in 2019 compared to 2018. Looking at the distribution of the external debt stock by debtors, the short-term public debt increased by 12,6% in 2019 compared to the previous year, amounting to $23.444 million. The short-term private sector debt decreased by 3,3% in 2019 compared to 2018, amounting to $64.682 million. The long-term public debt increased by 12,5% in 2019, while the long-term private-sector debt decreased by 14% (see table 3). Another dynamic model estimator based on the GMM method is the system GMM approach developed by Arellana and Bover. This approach is based on combining the difference equation with the level equations. Blundell and Bond (1998), and Blundell et al. (2000) stated that difference GMM had a weak predictive power in the finite sample and that the coefficient estimates were biased, and showed that the system GMM has better predictive power. For these reasons, the system GMM approach was used in our study since it gives better results.

2.2. The Pandemic Period

In 2020, the global economy suffered a great loss of production as a result of the mandatory restrictions due to the COVID-19 pandemic crisis (T.C. Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı, 2020, p. 9). To avoid the negative effects of the pandemic crisis on the economy, Turkey introduced a series of regulations in 2020 and the Ministry of Treasury and Finance announced the Economy Stability Shield Package. These regulations are as follows:

- Tax rates were reduced for some sectors.
- The implementation of the accommodation tax was postponed.
- The existence of force majeure was accepted for taxpayers operating in sectors seriously affected by the pandemic, and the deadlines for submitting and paying withholding tax returns, VAT returns, and social security contributions were extended.
- All income taxpayers were covered by force majeure, and their credit conditions were loosened.

Public funding was allotted to support households, the real sector, and the health system, and tax support and cash support were introduced. Thus, fiscal policy tools were used to eliminate the negative effects of the pandemic crisis on the economy in 2020 (TOBB, 2020, p. 124). The CBRT started to cut interest rates in July 2019 and kept doing it until the

end of May 2020. However, the CBRT increased the policy rate in September, November, and December to achieve price stability because inflation was above expectations (TOBB, 2020, p. 34). Several measures were also taken to reduce the negative impact of the pandemic crisis on working life. These measures are as follows (TOBB, 2020, p. 185):

- Flexible and remote work models were promoted.
- The conditions for receiving short-term working allowance were smoothed.
- Termination of employment contracts were restricted for a certain period.
- Employees were allowed to take an unpaid leave of absence.
- Employees were provided with the benefit of cash wage support.

The Turkish economy grew by 1,8% in 2020 thanks to these measures and policies, while the global economy shrank. However, although Turkey grew in 2020, this rate was not reflected in unemployment rates. The unemployment rate rose to 13,9% in 2020 with an increase of 0,25% points compared to 2019. The CPI inflation rate increased by 1,15% points to 16,33% in 2020 compared to 2019. The reason for the rise in inflation is that consumer loans increased due to the massive expansion of loans and monetary aggregates as a result of interest rate cuts. Additionally, the global increase in the prices of oil, industrial metal, and agricultural commodities in the second half of 2020 caused inflation to rise. The rise of the exchange rate in 2020 also increased the costs of manufacturers, thereby leading to an increase in the inflation rate. In other words, both the increase in domestic demand and the increase in costs in 2020 led to an increase in the inflation rate (TOBB, 2020, pp. 92-93) (see Table 1).

Exports decreased by 7,1% in 2020 compared to 2019, amounting to $168.387 million. Despite the rising exchange rates, exports declined because the global pandemic crisis significantly reduced foreign demand. Besides, movement and travel restrictions imposed to reduce the negative effects of the pandemic crisis negatively affected commercial activities. On the other hand, domestic demand, which increased in 2020 due to the decline in energy prices and the impact of the expansionary policies implemented, led to an increase in imports. The fact that global uncertainty increased the demand for gold also added to the increase in imports. Therefore, imports increased by 3,6% in 2020 compared to the previous year (TOBB, 2020, p. 147). All these developments caused the

current account, which had a surplus in 2019, to run a deficit of $35.018 million in 2020 (see Table 1).

The uncertainty about the future caused by the COVID-19 pandemic also increased investors' perception of risk. This situation significantly reduced both direct and portfolio investments made especially for developing countries (TOBB, 2020, p. 164). As with other developing countries, Turkey suffered a decline in FDI inflows in 2020. Indeed, FDI inflows to Turkey decreased to $4.699 million in 2020. Portfolio investment outflows increased in Turkey in 2020 (see Table 2).

Looking at the total gross external debt stock the debt stock decreased in 2019 but increased by 4,1% in 2020. Thus, the gross external debt stock increased to $ 432.970 million in 2020. In 2020, the short-term external debt stock increased by 18% compared to 2019 and reached $113.966 million. The short-term public external debt stock increased by 6,2% in 2020 compared to 2019. The short-term external debt stock of the private sector, which decreased in 2019, increased by 4,7% in 2020. The share of short-term debt stock in the total gross external debt stock rose by 26,3% in 2020. In 2020, the long-term external debt stock dropped by 0,1% to $319.004 million. In 2020, the long-term public external debt stock decreased by 11,5%, and the long-term external debt of the private sector decreased by 8,8%. The share of long-term external debt stock in the total external debt stock rose to 73,7% in 2020 (see table 3).

2.3. The Post-Pandemic Period with Declining Pandemic Effects

The time span from 2021: Q1 to 2022: Q2 was taken as the period of analysis to evaluate the quarterly changes in Turkey's macroeconomic indicators during the period when the effects of the pandemic declined.

Restrictive measures taken by all countries to counteract the negative effects of the COVID-19 pandemic crisis on world economies continued in the first quarter of 2021. However, the acceleration of vaccination in the first quarter of 2021, especially in developing countries, allowed the global economy to recover to some extent. The extension of expansionary financial policies and support packages in Turkey increased the growth rate in the first quarter of 2021 by 2,88% compared to the first quarter of the previous year. Thus, the growth rate in the first quarter of 2021 was 7,23%. The increase in growth was driven by the contribution of private and public consumption to growth. However, the increase in the growth rate was not reflected in the unemployment rate and the unemployment rate was recorded as 13%. The CBRT implemented a tight monetary policy in November and December 2020 due to the high inflation and the

increasing current account deficit (CBRT, 2021-1, CBRT, 2021-2). Nevertheless, the inflation rate rose to 15,59% in the first quarter of 2021. The high inflation was caused by increasing costs due to the increasing exchange rate, supply constraints in some sectors, and mounting inflation expectations (CBRT, 2021-2, p. 3). In the first quarter of 2021, the increase in foreign demand driven by the recovery in the global economy and the rise in the exchange rate boosted exports, while the increase in domestic demand also expanded imports. As a result of these developments, the current account deficit was $7.508 million (see Table 4).

Table 4: Macroeconomic Indicators of Turkey (2020: Q1-2021: Q2)

Years	Reel GDP (Thousand TL)	Real GDP growth rate (%)	Unemployment rate (%)	CPI (%)	Exchange rate of dollar	Export (Million $)	Import (Million $)	Current account Balance (Million $)
2021-Q1	435.226.824	7,23	13	15,59	7,39	49.467	56.462	-7.508
2021-Q2	468.630.943	21,73	12,4	17,09	8,38	54.389	60.784	-6.089
2021-Q3	540.185.280	7,99	11,7	19,26	8,54	56.080	63.238	5.270
2021-Q4	562.254.286	9,64	11,2	25,85	11,18	64.782	73.506	-1.187
2022-Q1	468.839.306	7,72	11	54,80	13,95	60.164	81.476	-17.833
2022-Q2	506.475.840	8,08	10,7	74,07	15,81	65.700	85.228	-10.882

Source: CBRT EVDS, Turkish Statistical Institute (TUIK).

Table 5: Foreign Direct Investment/Portfolio Investment Inputs and Outputs for Turkey (Million US dollars) (2020: Q1-2022: Q2)

Years	FDI net asset	FDI net liability	PI net asset	PI net liability
2021-Q1	778	2.165	-843	-1.194
2021-Q2	1.078	2.309	607,00	2.910
2021-Q3	2.371	5.523	698	5.183
2021-Q4	2.221	3.535	1.798	-3.843
2022-Q1	1.225	1.840	2.694	-2.145
2022-Q2	1.282	4.959	1.520	-5.076

Source: CBRT EVDS

The ongoing pandemic-driven uncertainty in the global economy in the first quarter of 2021 reduced FDI inflows to Turkey and led to portfolio investment outflows. Portfolio investment outflows totaled $1.194 million in the first quarter of 2021(see Table 5).

Due to pandemic restrictions and tightening financial conditions, economic activities lost momentum in the second quarter of 2021 but remained above the long-term trend. The growth rate of real GDP was 21,7% in the second quarter of 2021. Considering this increase in terms

of production, the industrial and service sectors played a key role in this increase, while the construction and agricultural sectors limited this increase. Looking at the quarterly growth rate in terms of spending, domestic demand and net exports contributed to the growth. Domestic demand contributed to the periodical growth through private consumption, while net exports contributed to it by increasing exports and decreasing gold imports (CBRT, 2021-IV, p.3). However, the growth rate increase had a limited impact on the unemployment rate in the second quarter of 2021, and the unemployment rate decreased by 0,6% points to 12,4% compared to the previous quarter. The aggregate demand in the second quarter of 2021 had a more moderate outlook compared to previous periods. The ongoing upward trend in international food and commodity prices and the rise in exchange rates and inflation expectations adversely affected inflation rates (CBRT, 2021-III, p.3). As a result of these developments, the inflation rate rose to 17,09% in the second quarter of 2021. In the second quarter of 2021, exports increased due to the further recovery of the global economy and the rise in export prices. In the same quarter, imports also increased due to the rise in the exchange rate, international commodity prices, and private consumption. The developments in exports and imports in the second quarter of 2021 caused the current account deficit to reach $6.089 million (see Table 4).

The recovery in the global economy in the second quarter of 2021 and the correct policies implemented by the CBRT to ensure stability at the general level of prices facilitated reducing uncertainty and risk perception of foreign investors about the Turkish economy. Thus, in the second quarter of 2021, there was an inflow in both FDI and portfolio investments in Turkey. FDI inflows increased by 48% in the second quarter of 2021 compared to the first quarter. In the second quarter of the year, portfolio investments in Turkey recorded an inflow of $2.910 million (see Table 5).

In the third quarter of 2021, the gradual easing of restrictions and the increase in vaccination led to a GDP growth rate of 7,99%. The determinant of growth in terms of expenditures was the domestic demand boosted by the increase in private consumption expenditures due to the reopening-driven recovery in pandemic-hit sectors (such as the tourism and services sector) (CBRT, 2022-I). This was reflected in the unemployment rate, and the unemployment rate fell to 11,7% compared to the previous quarter. The increase in commodity prices and the cost increase driven by supply problems caused the inflation rate to rise to 19,26% (CBRT, 2021-IV). Similarly, although the exchange rate did not considerably change in the third quarter of the year compared to the previous quarter, the increase in foreign/domestic demand thanks to the easing of restrictions increased

exports and imports. The developments in foreign trade and services balance also led to a current account surplus (see Table 4).

In the fourth quarter of 2021, the growth rate decreased to 9,64% due to the increase in private consumption expenditures and the decrease in public consumption expenditures and gross fixed capital investments (SBB [Presidency of Strategy and Budget], 2022). The unemployment rate did not considerably change and was recorded as 11,02%. On the other hand, the policy rate, which was kept constant until April-August 2021, was lowered in the September-December period to reduce inflation on the grounds that "interest is the cause of inflation". Therefore, Turkey has adopted the "New Economic Model" since 30 November 2021. This model is aimed to increase production and exports with low interest rates in Turkey. In other words, it was envisaged that rising exchange rates with low interest rates would generate a current account surplus, increase production, investment, and employment, and thus reduce inflation. However, contrary to expectations, inflation did not fall but increased to 25,85% (see Table 5). Besides, consecutive interest rate cuts led to a currency shock on December 20, 2021; thus, the USD to TL parity exceeded 18 TL. In line with this development, the "Communiqué on Supporting Conversion to Turkish Lira Deposit and Participation Accounts" dated 21 December 2021 was aimed at the conversion of foreign currency deposit and participation accounts into FX-protected Turkish Lira deposit and participation accounts. The introduction of FX-protected deposit accounts, which foregrounds the liraization strategy in the monetary policy, specifies that if the exchange rate change between the account opening date and the maturity date is against TL, the Treasury will pay the difference from the budget in addition to the interest (T.C. Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı, 2022, pp. 48-49).

These developments in the last quarter of 2021 led to a decline in investor confidence, thereby resulting in an outflow of $3.843 million in portfolio investments from the country (see Table 5). This situation caused the USD to TL exchange rate to rise. The rise in the USD to TL exchange rate increased the cost of energy imports for energy-dependent Turkey. The fact that the increase in imports exceeded the increase in export revenues also widened the current account deficit. Accordingly, the current account deficit was recorded as $1.187 million in the last quarter of the year (see Table 4).

In summary, the growth rate in Turkey was 11,3% in 2021, when the effects of the pandemic gradually diminished. Despite the high growth rate, there was not a significant decrease in unemployment rates. The unemployment rate dropped by 1,9% points to 12% compared to the

previous year. This indicates that the main source of growth is the increase in private consumption expenditures depending on the rise in domestic demand. In other words, it can be said that the growth did not create employment in Turkey in 2021. Besides, due to the policy rate cuts in the last quarter of the year, the inflation rate rose to 19,6%, and the USD to TL exchange rate was 8,9%. The current account deficit also decreased to $7.255 million compared to the previous year for reasons such as the increase in foreign demand/tourism revenues throughout the year (see Table 1). There was an increase in the gross external debt stock in 2021. The short-term external debt stock increased by 6,7% and the long-term external debt stock increased by 0,6% in 2021 compared to 2020. The short-term public debt decreased in 2021 compared to 2020 while the short-term private sector debt increased. In 2021, the share of short-term external debt in total external debt rose to 27,5%. The long-term public debt increased by 2,7% in 2021 compared to the previous year. On the other hand, the long-term private sector debt decreased by 1,3% in 2021 compared to 2020. The share of long-term external debt in total external debt fell by 1,2% points to 72,5% compared to the previous year (see table 3).

In 2022, geopolitical risks increased with the Russia-Ukraine war, which started with Russia's declaration of a "special military operation" in Ukraine on 24 February 2022, and the recessionary pressure in developed economies such as the US, the UK, and Canada. On the other hand, China's current zero-COVID policy has exacerbated supply chain problems. Therefore, there have been significant increases in global food and energy prices in 2022.

Due to both these developments and the decline in domestic demand, the growth rate in Turkey was 7,72% in the first quarter of 2022. Despite the growth, the unemployment rate did not considerably change and was recorded as 11%. The increase in energy and commodity prices and the exchange rate shock in December 2021 increased inflation to 54,8% in the first quarter of 2022 and to 74,07% in the second quarter of the year. The second quarter of the year witnessed a growth of 8,8% due to the increase in private consumption expenditures. The unemployment rate fell to 10,7%. The increase in both geopolitical risks and uncertainties in Turkey led to a further decline in foreign investors' confidence. This situation led to an increase in portfolio investment outflows in the first and second quarters of the year. Although the CBRT kept the policy rate unchanged in the first two quarters of the year, portfolio investment outflows caused the USD to TL exchange rate to rise. The USD to TL parity, which was 13,9 in the first quarter of 2022, rose to 15,8 in the second quarter. The rise in exports lagged behind imports in the first and second quarters of the

year due to the increase in global food and energy prices and the rise in the exchange rate. Accordingly, the current account deficit was $17.833 million in the first quarter of the year and $10.882 million in the second quarter (see Table 4 and Table 5).

3. Analysis of Turkey's Vulnerability Indicators

Although the literature has studies aimed at determining the indicators of economic vulnerability, a consensus on this issue has not been reached. Therefore, the Federal Reserve (FED) developed the vulnerability index computed using six indicators in the monetary policy report released on February 11, 2014, to project the impact of monetary contractions on countries. These indicators include (1) the ratio of the current account balance to GDP, (2) the ratio of gross government debt to GDP, (3) average annual inflation over the past three years, (4) the change over the past five years of bank credit to the private sector as a share of GDP, (5) the ratio of total external debt to annualized exports, and (6) the ratio of foreign exchange reserves to GDP.

The current account balance to GDP ratio, one of the indicators of vulnerability, is a key indicator for a sustainable current account balance. The view on the current account deficit is that the deficit is unsustainable when the ratio is 5% and greater than 5% (Ferretti and Razin, 1996, p.1). Indeed, the higher the ratio is, the greater the need for external borrowing is. This situation leads to an increase in domestic interest rates relative to foreign interest rates. Thus, interest payments on foreign debts increase and the debt burden of the country increases (Ümit, 2018). As seen in Table 6, this indicator, which was -2,79% in 2018, turned out to be positive in 2019 due to the current account surplus (see Table 1) and amounted to 0,89%. Due to the impact of the global pandemic crisis, this indicator increased to -5,17%. This rate decreased to -0,88% in 2021. However, the high exchange rates caused by the new economic model implemented in Turkey led to an increase in the current account deficit in the first two quarters of 2022, contrary to what was originally intended with the model (see Table 4). For this reason, above 5,38% in 2022. The ratio of private-sector loans to GDP was 67,41% in 2018 but increased to 75,06% in 2020. Therefore, the increase in this ratio in 2020 is a critical indicator that the private sector runs a greater risk of not being able to pay its debt.

Table 6: Vulnerability Indicators of Turkey (%, 2018-2021)

Years	Current account balance/ GDP)	Consumer prices	Domestic Credit to private sector/GDP	Goverment net debt stock/GDP	External debt stocks /export	Foreign exchange reserves/GDP
2018	-2,79	12,28	67,41	13,5	238,0	9,2
2019	0,89	15,18	65,35	16,3	227,1	10,7
2020	-5,17	16,33	75,06	19,2	254,6	6,9
2021	-0,88	19,6	72,42	20,5	194,5	8,9
2022	-5,38	72,31	54,52	16,8	181,1	9,2

Source: The World Bank Data, World Development Indicators, CBRT EVDS, Republic of Türkiye Ministry of Treasury and Finance; Statistics

Remarkably, the average annual inflation over the past three years was 14,6% (see Table 6). Besides, the interest rate cuts implemented in the fourth quarter of 2021 to reduce inflation rates caused inflation rates to rise in the first two quarters of 2022, contrary to expectations. The increase in exchange rates in 2022 due to the new economic model implemented in December 2021 has caused cost-driven inflation to rise. This situation caused inflation to increase from 19.6% in 2021 to 72.31% in 2022.

A high ratio of gross government debt to GDP, one of the indicators of vulnerability, causes the government to implement a contractionary fiscal policy and avoid additional debt accumulation, thereby restricting its intervention against external shocks. Besides, an increase in the interest rate leads to an increase in the public debt burden. Therefore, excessive borrowing narrows the government's use of fiscal policy and reduces its resistance to internal/external shocks, thereby causing the country to become more vulnerable. An increase in the debt stock also leads to a drop in the confidence of the markets in the country. This situation leads to a decrease/increase in the country's borrowing capacity and capital inflows/outflows, thereby making it difficult for the country to make debt service payments (Karakurt, et. al., 2015, p. 301). Looking at the ratio of gross government debt to GDP, the indicator was 13,5% in Turkey in 2018 and increased in 2019. The increase continued in 2020 and 2021 due to the impact of the pandemic and reached 37,91% in 2021. This rate decreased to 16.8% in 2022 (see Table 6).

The ratio of total external debt to annualized exports shows the impact of a country's export revenues on its external debt payment capacity. In other words, because external debt is paid with export revenues, a high ratio is considered to be a negative situation, especially for the debtor countries (Ümit, 2018). Indeed, Turkey's ratio of total external debt to exports was 238% in 2018, increased to 254,6% in 2020, and decreased to 181,1% in

2022. Foreign exchange reserve is among the main indicators of a country's resistance to external shocks. Countries with high foreign exchange reserves are more successful in their policies in the face of external shocks and crises. In this way, the country can intervene by supplying foreign exchange to the markets in the face of external shocks and crises (Ümit, 2018). In Turkey, the ratio of foreign exchange reserves to GDP was 9,2% in 2018 and rose to 10,7% in 2019. The interest rate cuts in 2020 to lessen the effects of the pandemic on the economy and the pandemic-driven uncertainty resulted in an increase in capital outflows from the country. This situation led to an increase in the exchange rate; therefore, the CBRT issued foreign currency to the market to prevent an increase in the exchange rate. Therefore, this indicator fell to 6,9% in 2020 but increased to 9,2% in 2022 (see Table 6). With the new economic model implemented in 2022, the CBRT supplied dollars into the market from its reserves, especially to prevent an ongoing rise in the USD to TL exchange rate. This indicator is estimated to decline further in 2023, as this leads to a decrease in the CBRT's foreign exchange reserves.

Thus, looking at the vulnerability indicators of Turkey, there was an increase in the indicators due to the impact of the pandemic crisis in 2020. This situation was caused by the interest rate cuts implemented by the CBRT to eliminate the negative effects of the pandemic crisis on the economy. In other words, the expansionary monetary policy implemented in 2020 increased the macroeconomic vulnerability by causing the already high inflation rate to rise further, the foreign trade balance to deteriorate, the exchange rate to rise, and the foreign exchange reserves of the CBRT to diminish. In 2021, when the effects of the pandemic subsided, there was a slight improvement in these indicators; however, contrary to the objective of low inflation and current account surplus envisaged in the new economic model, the current account deficit and inflation rates increased further in the first two quarters of 2022. The injection of dollars into the market to prevent the continuous rise in the USD to TL exchange rate reduced the CBRT's foreign exchange reserves. In the post-pandemic period, not the negative effects of the pandemic on the economy but the new economic model caused further deterioration in the macroeconomic indicators, contrary to what was intended with the model. In this context, Turkey's macroeconomic vulnerability is estimated to increase significantly in 2023.

4. Conclusion

The COVID-19 pandemic that outbroke in Wuhan, China in December 2019 adversely affected all world economies. World economies took many measures to reduce the effects of the pandemic such as curfews and closure

of schools, workplaces, and border crossing. Together with the negative demand/supply shock in world economies, these measures caused large losses in production and employment in the short term. Governments implemented support packages for companies and took measures regulating working life to avoid such losses and protect employment.

Like other world economies, Turkey implemented economic policies to reduce the negative impacts of the pandemic on the economy. In addition to the sectoral support packages to stimulate domestic demand in Turkey, the CBRT also adopted an expansionary monetary policy through interest rate cuts. This situation led to credit expansion, thereby increasing domestic demand, and enabling Turkey to grow by 1,8% in 2020. While the world economy contracted by 3,1% in 2020, Turkey's macroeconomic vulnerability increased despite the growth of its economy. As a matter of fact, according to the indicators used to measure the vulnerability index proposed by FED in the 2014 report, there was an increase in Turkey's vulnerability indicators in 2020 (see Table 6).

The increase in external demand with the recovery of the global economy in 2021 and the increase in domestic demand fueled by interest rate cuts pushed Turkey's growth rate up to 11,3%. The "New Economic Model" has been implemented since the last month of 2021 to reduce inflation, increase production and and create a current account surplus. Despite the rise in inflation rates in 2020 and 2021, the CBRT reduced the policy rate consecutively in the last quarter of 2021, contrary to its "price stability" objective, to realize the projections of this model. In 2022, apart from the geopolitical risks, the new economic model implemented in contradiction with the economic policy caused the inflation rate to rise further and the foreign trade balance to deteriorate further in the first two quarters of the year. Based on these developments, the macroeconomic vulnerability of the country is estimated to increase significantly in 2023.

In sum, the vulnerability caused by rising inflation and current account deficit due to the new model recently implemented in Turkey has increased the country's risk premium, which in turn has increased external borrowing costs. The composition of exports in Turkey is mostly composed of low-value-added products, while the composition of imports is composed of high-value-added products. This situation caused export revenues to be lower than the increase in import expenditures despite the rise in the exchange rate, which is contrary to what was expected with the new model. Additionally, rising energy prices as a result of the Russia-Ukraine war further increased the foreign trade deficit by making imports more expensive in Turkey, which is dependent on raw materials and energy. In this regard, the "New Economic Model" implemented in the country

should be abandoned immediately and the CBRT should refocus on its main objective of price stability. To reduce inflation, a monetary policy should be adopted that is in accord with the inflation targeting strategy. To reduce uncertainties in monetary policy implementation and improve investor confidence, it is recommended that CBRT governors should not be replaced by the government before the end of their term. In other words, the independence of the CBRT should be restored. It is also recommended that Turkey should reduce its foreign dependency and increase the share of high-tech products in exports and enhance renewable energy sources to reduce the current account deficit.

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4

GREEN BUILDING TAX INCENTIVES: SELECTED COUNTRY CASES AND IMPLICATIONS FOR TÜRKİYE

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Abstract

Environmental and economic problems such as global warming, depletion of clean water resources, depletion of fossil fuel resources, the effects of which have been increasing in recent years, have led to the emergence of the concept of environmentally friendly/green building. Green buildings aim to use energy and other natural resources in the most efficient way, create an efficient indoor environment and minimize environmental damage. It is well known that a significant portion of the environmental pollution in the world is caused by housing. In this case, what needs to be considered and done both to make today's world more livable and to leave a better world for future generations is how to reduce this pollution. Green buildings, which minimize the energy they use and have a self-sufficient sustainable cycle, are environmentally friendly and have a positive impact on individual and social health. It also significantly improves the quality of life for its residents. In this context, various incentive mechanisms for green buildings are implemented in many developed countries. Tax incentives are one of these mechanisms. Undoubtedly, examining the studies in pioneering countries in the world will contribute to the planning of a more livable world. The aim of this study is to examine green building tax incentives in selected countries and to develop some recommendations for Türkiye to increase green building. It is noticeable that there is a gap in the literature on this issue. In this direction, it will be possible to draw various conclusions for Türkiye based on the practices in developed countries. As a result of the study, it is concluded that Türkiye should encourage green buildings by introducing various incentives in many tax types through comprehensive legislation.

Keywords: Energy Efficiency, Sustainability, Environmentally Friendly, Green Building, Tax Incentives

Jel Codes: H20, H29, H71, K32, K34, P18, Q56

1. Introduction

The 20th century was a century in which scientific and technological developments accelerated, industrialization increased and raw materials were consumed at a parallel pace. This has caused environmental problems. In line with these factors that negatively affect the environment and human health, people have started to use renewable energy sources and to design buildings that are respectful to people and the environment and that consume less energy in harmony with the climate. Problems such as the consumption of natural resources, environmental pollution, and global warming have brought green buildings that provide sustainable energy to the agenda. These buildings, which are designed to provide sustainable energy, have positive effects on human health as they are high-tech buildings that attach importance to the environment. The most important features of green buildings are that they consume less energy and water, have less harmful effects on the environment and have better indoor air quality. It is seen that green buildings reduce the amount of carbon emissions, ensure the effective use of rainwater, reduce the amount of waste and pollution, and provide people with a higher quality of life by ensuring that buildings are sustainable.

Around the world, green buildings are being scaled up to mitigate some of the environmental impacts associated with urbanization. Countries such as the United States of America (USA) and England, which have established their own green building certification programs, have led these scaling-up initiatives. Many countries are implementing the certificate programs developed by these countries. Within the scope of efforts to increase the costly green building structures, it is seen that investors need significant public support, especially in the initial phase of these structures. Therefore, government support is very important in this regard. Governments are trying to transform buildings with both subsidies and tax incentives. In this context, governments mostly use tax incentives. The main reason for this is that taxes are the most important source of economic finance, both in terms of their direct impact and their indirect effects of control and incentives. In this context, the aim of the study is to develop various recommendations for Türkiye based on the tax incentives practiced in selected countries. It is thought that this nature of the study is important in terms of the development of the literature.

In recent years, the number of studies on green building has increased. Looking at similar previous studies, Xia et al. (2013), in their study on the certification of green buildings in Australia, provide a useful reference that can help in the effective preparation of certification documents. Şentürk (2014), defined the concept of green building, explained the fiscal incentive instruments in the USA and made recommendations for Türkiye.

Zuo and Zhao (2014), presented a critical review of the existing body of research on green building. They also investigated the effects of climatic conditions on the effectiveness of green building assessment tools. In his study, Daşdemir (2019) examined green building practices and green tax incentives in Australia and Norway. Kaya et al. (2019) have demonstrated how it will be possible to increase the added value in Türkiye with the popularization of green buildings that will be realized depending on the use of renewable energy sources. In their study, Zhang et al. (2019) have proposed solutions to the existing problems related to green buildings by addressing many countries.

Değirmendereli and Durukan (2021), analyzed tax incentives to increase energy efficiency in housing within the scope of energy efficiency policies in Türkiye and European Union countries and proposed a new tax incentive mechanism. Gergerlioğlu and Uçar (2023) evaluated the tax advantages applied by the Netherlands, France, Spain, Germany, and the United Kingdom, which are among the top five countries in the energy efficiency score ranking of buildings in Europe, to increase energy efficiency. Özdemir (2023) examines green building tax incentives in some selected countries and presents tax incentive recommendations for Türkiye to increase green buildings. Yuan et al. (2023) investigated the role of fiscal incentives and energy efficiency in promoting green economic growth in China. They reveal the critical role that fiscal incentives such as tax breaks and subsidies play in encouraging investments in sustainable practices and clean technology development.

In this study, unlike previous studies, the incentive system applied to green buildings in 6 different developed countries was analyzed and various suggestions were developed for Türkiye. In this context, the study first presents an overview of the concept of green building, the characteristics, and benefits of green building. Subsequently, practices and tax incentives for green buildings in selected countries were evaluated. Then, practices and tax incentives for green buildings in Türkiye are discussed. In the conclusion section, various implications and recommendations are made for Türkiye based on green building tax incentives in selected countries.

2. Overview of the Green Building Concept

Sustainable development has become an important goal worldwide due to growing concerns about the detrimental effects of global warming and climate change on human life, the environment and the economy (Azis et al., 2013: 63). The United Nations has committed the countries of the world to develop policies aimed at protecting the environment and guaranteeing prosperity for all within the framework of sustainable

development goals. It was emphasized that achieving these goals requires a transition to green economic development that prioritizes the use of renewable energy, reducing greenhouse gas emissions, and promoting energy efficiency (He and Chen, 2021: 1; Yuan et al., 2023: 599-600). Green buildings are also an important part of this structure. Green buildings, which we encounter today under many names such as sustainable, ecological, and environmentally friendly, etc., are designed with a holistic understanding of social and environmental responsibility by evaluating the building within the framework of its life cycle, starting from land selection. At the same time, green buildings are defined as sustainable buildings that are sensitive to ecosystems, that consume as much as they need, that are oriented towards renewable energy sources, that use natural and waste-free materials, and that are suitable for climate data and site-specific conditions (Erdede et al., 2014). The concept of green building is generally used to describe buildings that are resource efficient, constructed using sustainable products, and located in environmentally preferable locations. Green building advocates claim that green building credits encourage the use of clean materials, clean energy, and less polluting building materials. Green buildings improve the quality of life of building occupants and public health. Green building criteria include the use of recycled materials, improving the energy efficiency of the building, including siting criteria (Brown et al., 2002: 3).

Another concept that needs to be explained when defining green building is life cycle assessment. Life cycle assessment is the determination of the environmental impact of a product throughout its existence with the help of quantitative tools (World Green Building Council, 2023). Life cycle assessment for green buildings starts from the energy of the materials used, the evaluation of the time used, the residue left to the environment after use, and the impact of the material on global warming (Zuo and Zhao, 2014: 272). The Hong Kong Green Building Council (HKGBC) defines green building as a practice that reduces the environmental impact of buildings and enhances the health and well-being of building occupants. According to this (HKGBC, 2023):

- Green buildings should be planned with a focus on their impact on the environment and people throughout their life cycle.

- In order to minimize the carbon footprint and emissions of green buildings, renewable energy sources should be selected and environmentally friendly materials should be used throughout the life cycle. Resources such as energy and water should be spent in the most efficient way.

- The indoor environmental quality of green buildings should be enhanced through natural ventilation, natural lighting, and other design strategies.

- In green buildings, soil, water and air pollution should be minimized and waste production should be reduced.

If the environmental factor is taken into consideration in the processes such as site selection, design, construction, and maintenance of a building, and at the same time the life cycle of the building is taken as a basis, the concept of green building is mentioned. On the other hand, the green building concept refers to both the preference for resource-efficient structures and processes in the construction of the building and the inclusion of elements that serve the classical understanding of building construction such as usability, durability, and comfort (EPA, 2016). Since recyclable materials are used in the design and construction of green buildings, they are resource efficient by consuming less water and energy. Its water-sensitive design reduces vulnerability to flooding. It also minimizes emission pollution to water, air and soil, and reduces noise and light pollution (Olubunmi et al., 2016: 1612).

If materials with recycled content and/or materials obtained from renewable resources are used in the construction of a building, it can be said that the green building concept stands out in the construction of this building. In other words, if a building is constructed with environmentally friendly products that pollute the environment the least, or if the landscaping of a building is done using native plants that can remain alive without requiring more irrigation, it can be said that the building serves the green building concept (EPA, 2016). Green buildings are a system that fights against adverse climate changes caused by human interventions. Human and environmental impacts are taken into consideration and possible negative impacts are tried to be prevented. In this context, it is aimed to provide sustainable energy sources with the search for advanced technology, to recycle waste water, and to create self-sufficient structures by utilizing natural resources (Onuoha et al., 2017: 46).

3. Features and Benefits of Green Buildings

People spend about 90% of their time indoors. Green buildings create spaces that promote health and comfort. Green buildings can be beneficial for health. The polluted air we are exposed to every day is not only outdoors. It is also indoors, in homes, offices, hospitals, hotels, schools, etc. According to the World Health Organization, indoor environments are 2 to 10 times more polluted than outdoor environments. Building and

flooring materials such as paints, cleaning products and carpets can be hazardous to human health. The use of sustainable materials can help clean the air. Green buildings have a positive impact on public health (Singh et al., 2010: 1665).

According to the International Living Future Institute (2016), the main issues to be considered when determining the design and construction characteristics of green buildings are listed below:

- Determining the limits of growth,
- Realization of urban agriculture,
- Keeping natural environment change to a minimum,
- Supporting life based on human power,
- Protection and saving of water,
- Ensuring energy saving and production,
- Healthy indoor environment,
- Selection of environmentally friendly and durable, easily repairable materials,
- Reducing the carbon footprint of the building.

While there are many positive aspects of green buildings, one of the issues that should be particularly emphasized is the economic dimension. With very small additional costs to be incurred during the construction phase, considerable savings can be achieved throughout the life of the building. Buildings designed in a structure that minimizes water consumption, electricity consumption, heating, and lighting needs can pay for themselves in a very short time with the savings to be obtained from the bills here. Considering that they will also reduce health costs, they are very rational structures to use.

The most commonly cited advantages of green buildings are that they help protect and enhance the ecosystem and biodiversity, reduce solid waste, improve the quality of air and water, reduce operational and maintenance costs, increase living standards, and improve the air, thermal and acoustic environment (Papadopoulos and Giama, 2007: 754). The high initial investment costs of green buildings, the difficulties of providing automatic control systems, the need for building automation systems, the need for consultancy services to ensure the comprehensive implementation of the system are among the barriers to green buildings in the economic context (Çakmanus et al., 2010: 41). However, despite all these, green buildings (Özdemir et al., 2017: 53):

- It reduces carbon dioxide emissions caused by the building,

- It minimizes the destruction of the environment during the construction of the building,
- Ensuring the use and development of renewable energy,
- Waste materials resulting from excavation are evaluated,
- As a result of the use of green roofs, rainwater can be collected and used,
- Utilization of natural light,
- Saving energy,
- Reducing heating and cooling costs with insulation systems,
- Ensuring the valuation of the building,
- Creating healthier and more productive spaces for those living in them,
- It has the advantage of adding more value to urban life.

To summarize the issue, some factors are among the most important advantages of green buildings. These are the positive impact on human health by reducing environmental damage, the positive impact on the economy by reducing energy costs in terms of input costs, the design of a self-sufficient system by directing the use of renewable energy and the maximum utilization of natural resources (Kaya et al., 2019: 19).

4. Practices and Tax Incentives for Green Buildings in Selected Countries

The development of green buildings has started to gain importance all over the world. In order to support and accelerate this development, various certification systems need to be developed. The certificates given to green buildings whose design and construction have been completed serve the purpose of encouraging developers with the importance it attaches to the techniques used and green transformation, raising public awareness by advertising positively in the public, and popularizing green building practices. In this regard, a competitive environment is created for developers. Green building certification studies were first started in England and the USA. In addition to the Building Research Establishment Environmental Assessment Method (BREEAM[1]) developed in England and Leadership in Energy and Environmental Design (LEE[2]) certification

[1] BREEAM is an assessment system with a wide range of uses. The system has a wide range of building classifications, including commercial, industrial, health, residential, court, etc. Apart from this diversity, BREEAM also has the feature of being adaptable to different buildings (Kaya et al., 2019: 21).

[2] It was developed to increase the speed of development and production of green buildings and to ensure environmental sustainability. Its main objectives are to minimize the environmental impact of building site selection, to support green competition, and to raise

systems developed in the USA, numerous green building certification systems have been developed, such as SBTooL[3], Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB[4]), CASBEE[5] and GREEN STAR[6]. In the development of these systems, the primary objective was to provide each country with a unique rating in accordance with its own climatic data, standards, and living conditions. However, afterwards, LEED and BREEAM rating systems gained international recognition and started to be used by countries that could not develop their own rating system (Evren, 2022: 6-7).

In particular, public authorities are making various policy arrangements to encourage green buildings. The most important way to increase the number of green buildings is to incentivize their construction. Countries formulate various incentives to encourage the development of green buildings, including fiscal subsidies, tax breaks, and mandatory construction requirements for public buildings. At the forefront of these policy arrangements are tax regulations. Whether used as businesses or residences, it is valuable to offer various advantages for green building transformation.

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awareness about green buildings. For this, assessments are made in five areas. These are sustainable space planning, efficient use of water, energy efficiency and renewable energy use, material and resource use, and indoor environmental quality (Erdede and Bektaş, 2014: 8).

[3] SBTool (formerly known as GBTool) is an assessment tool created by a group of developed countries to lay the foundation for an environmental assessment method for buildings. SBTool is a general assessment framework that is not directly applied to buildings on its own, considering that each country and region has different climatic and environmental characteristics, and it is a tool that envisages various countries taking this mold and adapting it to their national and regional conditions (Erdede and Bektaş, 2014: 9).

[4] It was created in Germany together with the DGNB (German Sustainable Building Council) and the Joint Ministry of Transport, Construction, and Urban Affairs. It is intended to be used in the planning and evaluation of buildings as green buildings. LEED and BREEAM were taken as basis when designing (Ürük and Külünkoğlu İslamoğlu, 2019: 150).

[5] Prepared by taking into account the sustainability principles of Asian countries as well as Japan, the Comprehensive Assessment System for Built Environment Efficiency (CASBEE) was developed in cooperation with the Japan Sustainable Building Consortium (JSBC) and the Green Building Council (JaGBC). In this system, building classification is based on building stages, not functionality. As a result of the evaluation, 5 different certificates can be given to the building: C, B-, B+, A, and S. C indicates the lowest level of environmental effectiveness and S indicates the highest level of sustainability (Sev and Canbay, 2009: 45-46).

[6] GREEN STAR, developed by the Green Building Council of Australia (GBCA), is very similar to BREEAM and ensures that the life cycle impacts of buildings are evaluated within the principle of sustainability. This scoring system was first developed for office buildings, and then its scope was expanded to include shopping malls, industrial, and educational buildings (Erdede and Bektaş, 2014: 8).

While greenhouse gas emissions can be significantly reduced by offering tax incentives, it is also possible to redirect energy preferences towards alternatives that are characterized as clean. However, reducing renewable energy costs through tax incentives also paves the way for energy savings that can be achieved in this way (Hart et al., 2023). In this context, while deciding on the selected countries in terms of tax incentives provided for green buildings, developed countries that are particularly working on building energy efficiency were preferred. In this context, the USA, England, Australia, France, Spain, and Germany were discussed.

4.1. USA

When the incentives practiced in countries are analyzed, it is seen that the most incentives are practiced in the USA. Different incentive programs are implemented in each state in the USA. In this context, classifications are made at federal, state, and local levels. Policies at the federal level mainly include buildings constructed and used by the government. Green policies at the state level include non-public buildings and voluntary efforts by private entrepreneurs. However, some policies implement green policies to encourage the participation of private entrepreneurs in achieving local goals. Incentive-based policies are grouped into various strategies such as tax incentives, fiscal incentives, bonuses, and prior authorization to carry out environmental regulations (Zhang et al., 2019: 4).

Within the scope of green buildings, there are both legal regulations and rules developed by a number of organizations in the USA. These regulations are enforced by the states. The standards introduced by LEED have been adopted by local courts, states, and federal agencies. Organizations with this certification are responsible for compliance with standards that prevent excess energy consumption, prevent pollution, and eliminate the greenhouse gas effect. The equivalent of each of the criteria we encounter in the LEED system shows itself as credit scoring. The categories from the past to the present are sustainable areas, water efficiency, energy and atmosphere, materials and resources, indoor quality, innovation, and design. Today, however, there is also a regional priority category. The scoring of the relevant classifications also varies and has been differentiating until today. As a result of the classifications that emerge as a result of the aforementioned scoring, certificate types are formed. These types of certificates show score levels in terms of impact on energy use, pollution prevention, and greenhouse gas mitigation (Kaya et al., 2019: 20-21).

In the USA, a green building incentive mechanism has been established on behalf of various groups/states. The aim of the tax deduction for green

buildings is to incentivize building owners and developers to construct green buildings in order to maximize the environmental benefits from green buildings. For example, New York and Maryland have accepted the legislation of tax deductions for green buildings (Brown et al., 2002: 3). In the state of Maryland, green building owners receive an 8% income tax deduction on the overall cost of their buildings. The green building compliance criteria that those who wish to benefit from this incentive are obliged to follow has been determined by the relevant local public agency in accordance with the USGBC LEED criteria. New York state has adopted a "green building allowance" to make public and privately owned buildings more efficient and environmentally compatible. The green building allowance is implemented to incentivize building owners and developers to use more environmentally friendly products and construction techniques when constructing buildings (Louw, 2012: 18). In New York state, building owners and tenants who meet certain green building criteria are eligible for corporate tax, income tax, and insurance deductions. One of the most important criteria here is not to exceed 65% of the allowable energy consumption in new buildings and 75% in renovated buildings. In the state of Oregon, a practice to encourage green buildings has been added to property taxes. In this context, support is provided in the form of a tax credit-refund depending on the covered area in order to cover the costs arising from commercial buildings that receive LEED Silver level certification. In Cincinnati, Ohio, LEED-certified new buildings are exempt from property tax for 15 years and renovations for 10 years, up to a maximum of $500,000. For those certified at the LEED Platinum level, there is no upper limit on tax exemption (Ilıcalı, 2016: 77).

4.2. England

As it is known, England receives a lot of rain due to its climate. In order to turn this situation into an opportunity, England government established a Law under the name of "BS-8515" standard in 2009. This Law includes information on the design, installation, and maintenance of rainwater harvesting systems for the addition of rainwater to domestic water. In this system, a 100% tax discount is implemented in the first year. In the field of value added tax (VAT), a 5% discount is also provided for solar panels. In the country, there are also advantages for individuals to market the energy they produce, and those who generate electricity with solar panels on the roofs of their houses have the opportunity to sell the excess of their needs to companies (Özdemir, 2023: 76-77).

Over a period of approximately five years, from the beginning of 2022 until March 31, 2027, England aims to provide tax incentives worth approximately £280 million to improve residential energy efficiency. It

aimed to achieve this through a reduction in VAT on energy-saving materials for residential buildings. To this end, the government announced that insulation, heat pumps, and solar panels for energy efficiency in residential buildings will be subject to VAT at "0%" until March 31, 2027 (Gov.UK, 2023). At the same time, the stamp duty payable for a dwelling is designed to increase and decrease depending on the energy efficiency performance of that dwelling. Ultimately, a lower stamp duty will be calculated for the dwelling with better energy performance (EEIG, 2023).

4.3. Australia

In Australia, there is an organization called GBCA that inspects the status of green buildings and gives green building approval. One of the main roles of this organization in the green building process is to set standards for green buildings using a set of rating tools. To set these standards, the GBCA developed the Green Star rating system in 2002. Today, the Green Star rating system remains popular and is becoming increasingly widespread in the construction industry (Xia et al., 2013: 302).

If we look at green building practices in Australia, water saving has an important place in green building practices in Australia due to the expected drought shortage in the long term. A maximum of 5-10% savings can be achieved with only water saving technologies. However, buildings that generate their own energy through green building practices will reduce the need for thermal power plants powered by coal and nuclear energy. It will also reduce the amount of water used in these plants. This shows the magnitude of the water savings and its importance for Australia (Zuo and Zhao, 2014: 273).

While there is currently no systematic approach to tax concessions for green buildings in Australia, federal tax systems do provide tax concessions on environmental protection activities. In addition, although there are major differences between local and state planning laws, national standards are being applied to the Australian Building Code, which is seen as a good step forward (Antoniades, 2011).

Ultimately, long-term sustainability is an important goal in Australia. There are many stakeholders that can assist the government in achieving this goal. Building developers play a crucial role in the expansion of Australia's urban planning. Therefore, by increasing tax incentives and further research into the premium value of green buildings, the cost savings for the life cycle of the building can be quantified and this can be seen as an additional benefit for the developer. Furthermore, if other incentives are made available for the users of green buildings, this will increase the

demand for green buildings and create an environment for a market where green buildings are needed (Daşdemir, 2019: 126).

4.4. France

Since the late 1990s, France's environmental policy has been based on fiscal instruments that protect the environment to promote sustainable development and green growth. Existing fiscal instruments include disincentive measures such as taxes and duties or incentives such as tax credits (UNEP, 2017). Several measures have been introduced in France to encourage households to undertake energy efficient renovations, including tax credits, subsidies and zero-rate bank loans. The tax credit scheme allows taxpayers to deduct part of the renovation cost from their income tax, with the deduction rate varying depending on the equipment (e.g. double glazing 15%, roof and wall insulation 25%, modernization of the heating system 25%, adoption of renewable energy 40%) and the number of people in the household (Charlier, 2015: 470).

The French government first introduced a sustainable development tax credit in 2005 to increase energy efficiency in private housing. Subsequently, this tax advantage, which has been differentiated in line with technological changes, has continued to be implemented in the form of an energy transition-specific tax credit. The implementation allows owners of a private dwelling in France to benefit from an energy transition tax credit of 30% of their expenditure if they wish to carry out energy efficiency renovations or modernize their heating system. In practice, tax credits are granted by the relevant tax administration on the amounts shown in the documentation for the expenses incurred, after deducting other tax advantages or incentives, if any, except for incentives for the installation of a power plant. This tax advantage, which cannot be utilized for a person's second home, is implemented at a maximum of 30% of the total expenditures made for energy renovation works. The amount is designed not to exceed €8,000 per person in a household and is set at €16,000 for couples. There is also the possibility to repay up to an additional €400 for each child in the same household, if any. This tax credit, which is available once every 5 years, also applies to investments in new buildings. In this context, tax credits can also be utilized for the improvement of insulation and/or heating systems in new buildings in order to save energy (Gergerlioğlu and Uçar, 2023: 55-56).

4.5. Spain

Since the energy consumption of buildings in Spain has increased by 31.03% and greenhouse gas emissions have increased by more than 20%

since 1990, it aimed to improve energy in all residences and detached houses by taking different normative and fiscal measures for the housing sector (Villca-Pozo and Gonzales-Bustos, 2019: 530). In Spain, some municipalities provide a discount of up to 50% on the real estate tax rate if solar energy systems are established to other houses except new houses. In addition, buildings or facilities containing thermal or electrical installations using solar energy for any work or installation requiring construction licenses provide up to 95% discount on buildings, installation, and infrastructure works tax and this tax reduction is also applied by the municipalities (Villca-Pozo and Gonzales-Bustos, 2019: 535). It is seen that local governments provide discounts on real estate tax for buildings with solar energy system or photovoltaic system (Özdemir, 2023: 77).

The Spanish government also offers a personal income tax credit for residential energy efficiency retrofits. The tax credit mechanism works by providing a fiscal contribution to energy efficiency retrofit initiatives for rented dwellings under the rental legislation (Shazmin et al., 2016: 538). This contribution can be used by homeowners. In order to benefit from the personal income tax credit, the relevant houses or buildings must be certified with an energy efficiency certificate. The government has also announced a maximum 60% tax deduction for renovation activities under the "Improvement, Transformation, and Resilience Plan" to improve energy efficiency in homes. In addition to these tax deductions for energy rehabilitation in buildings, Spain also provides for an additional 20% tax deduction for improvements to heating and cooling systems as part of energy efficiency (Gergerlioğlu and Uçar, 2023: 56).

4.6. Germany

Hamburg, the second largest city in Germany, was the first city to develop a comprehensive green roof strategy to mitigate the effects of climate change. It has allocated a budget of €3 million for the development and implementation of the strategy, which aims to facilitate the planting of green roof surface by proposing the use of various tools. This program, which was originally planned to be implemented from 2015 to the end of 2019, has been extended until 2024. The program finances 40% or more of the construction costs for green roofs between 20 and 100 square meters for privately-occupied residential properties, with a maximum of €50,000 per roof for non-residential buildings, after which the Municipality of Hamburg plans to increase the maximum amount to €100,000 per building. In 2019, Hamburg has allocated €7.5 million for the construction of green roofs in schools (Clar and Steurer, 2023: 804).

In order to increase energy efficiency in buildings, the German government has introduced some tax advantages for homeowners, which will be recognized as a deduction for income tax purposes. The regulation, which entered into force as of 2020, applies to homeowners over 10 years old and the discounts are shown in the income tax return. However, benefiting from these discounts is subject to the condition that the owner of the dwelling must be residing in the dwelling. Another condition for benefiting from the rebates is that the efficiency improvements must be completed by 01.01.2030 at the latest. Within the scope of the incentive, homeowners will be able to benefit from the tax deduction advantage if they replace their windows, doors, heating systems, replace or renew their ventilation equipment, insulate their walls, roofs, floors and ceilings, and have a digital system installed to ensure energy performance optimization. On the other hand, the tax deduction for these activities is limited to 20% of the expenditures. The right to deduction is spread over 3 years and is applied as 7% in the renewal year and the following year and 6% in the following year. In addition to the proportional limit, there is also a limit on the amount of the deduction, which is capped at a maximum of €40,000. If the property is rented out or offered to someone else free of charge, the tax deduction cannot be claimed (Gergerlioğlu and Uçar, 2023: 56-57). The German government expects to save 3.4 million tons of carbon through these tax incentives by 2030 (Eriksen, 2019).

5. Practices and Tax Incentives for Green Buildings in Türkiye

It is seen that green buildings, which first came to the agenda in Türkiye in the early 2000s, have made considerable progress with the important steps taken in the period until today. In this 20-year period, Türkiye has realized various legal regulations in order to encourage green buildings and support sustainability goals in the field of "Green Building" and "Sustainable Structures", which have an important priority in the world. Government incentives, tax deductions, and fiscal support help green building practices to become widespread (Minareci, 2023).

Although not yet legally valid in Türkiye, there are certification studies that have been completed and are under development. One of these efforts, the Environmentally Friendly Green Buildings Association (EFGBA), established in 2007, aims to contribute to the development of the construction sector in line with sustainable principles. EFGBA, a member of the World Green Building Council, has developed the EFGBA Housing Certificate with the contributions of many academic institutions, academics, research centers, non-governmental organizations, professional chambers, and various association members in order to produce a National Green Building Certificate for Türkiye in line with internationally

recognized rating systems such as LEED, BREEAM, and DGNB (Evren, 2022: 8).

In Türkiye, some legal regulations have been established to reduce energy loss from buildings. Examples of these are "Energy Efficiency Law[7] No. 5627", "Regulation[8] on Thermal Insulation in Buildings", "Regulation[9] on Energy Performance in Buildings", "Regulation[10] on Increasing Efficiency in the Use of Energy Resources and Energy", "Energy Efficiency Strategy Document[11]", "Energy Identity Certificate[12] in Buildings", "Green Certificate Regulation[13] for Buildings and Settlements" (Özdemir, 2023: 78-79). The first domestic practice prepared for the purpose of certification of green buildings, the National Green Certificate System (YeS-TR), was implemented within the scope of the "Green Certificate Regulation for Buildings and Settlements" published in the Official Gazette in June 2022. Although this regulation is the only regulation regarding green building, in addition to the legal regulations regarding green buildings in Türkiye, different studies have been carried out by different institutions, non-governmental organizations, independent entrepreneurs and universities, and drafts regarding green building certification systems have been created (TÜÇA, 2023).

There is no direct tax incentive for green buildings in Türkiye. However, tax legislation should be examined and incentive policies should be implemented to encourage investors and green building users for the construction of green buildings. When Turkish tax laws are examined, green buildings should also be included in the scope of some articles regulated as exemptions, exceptions, and deductions. Although there is no regulation directly related to green buildings in the Turkish tax legislation, there are some regulations covering buildings related to energy efficiency and renewable energy. In this context (Özdemir, 2023: 80-81):

- In Article 9 of the Income Tax Law[14] (ITL) No. 193, *"In accordance with the Electricity Market Law[15] No. 6446, for the purpose of producing electrical energy based on renewable energy*

[7] Official Gazette of the Republic of Türkiye, N:26510, D:02.05.2007.
[8] Official Gazette of the Republic of Türkiye, N:27019, D:09.10.2008.
[9] Official Gazette of the Republic of Türkiye, N:27075, D:05.12.2008.
[10] Official Gazette of the Republic of Türkiye, N:28097, D:27.10.2011.
[11] Official Gazette of the Republic of Türkiye, N:28215, D:20.02.2012.
[12] The energy identity certificate is a document that contains information on the building's energy demand and energy consumption classification, insulation properties, and the efficiency of heating and/or cooling systems (Republic of Türkiye Ministry of Energy and Natural Resources, 2021).
[13] Official Gazette of the Republic of Türkiye, N:31864, D:12.06.2022.
[14] Official Gazette of the Republic of Türkiye, N:10700, D:06.01.1961.
[15] Official Gazette of the Republic of Türkiye, N:28603, D:30.03.2013.

sources within the scope of unlicensed activities, the installed power installed on the roofs and/or facades of the houses they own or rent is limited to a maximum of 50 kW. Those who sell the excess electrical energy produced from only one production facility up to 50 kW (including 50 kW) to the last resource supply company are exempt from tax". At the same time, according to the ITL, deliveries and services provided by tax-exempt tradesmen and taxpayers whose earnings are determined in a simple way have been evaluated within the scope of exceptions in the provision of VAT Law[16] 17/4-a. These encouraging practices during the construction of buildings are also an encouraging practice for green buildings, thus an encouraging element can be created for the construction of green buildings.

- Transactions aimed at providing thermal insulation and energy saving in buildings included in Law[17] No. 6728, Stamp Duty Law[18] No. 488 and Fees Law[19] No. 492, and papers issued in this regard are exempt from tax. Since these provisions are related to buildings, they can be considered a regulation covering green buildings.

- It is possible for green buildings that provide energy saving and thermal insulation to benefit from this incentive, with the provision in Article 40 of the ITL: *"Expenses aimed at providing heat insulation and energy saving, which increase the economic value of the real estate included in the business, can be written off directly as expense in the year they are made"*. Again, it is stated in Article 74 of the same Law that *"Depreciation allocated for the goods and rights rented and expenses made by the lessor to provide thermal insulation and energy saving, which increase the economic value of the real estate, will be recorded as expenses in the real estate capital income gains"*. It can also be considered as another incentive regulation.

As can be seen, the regulations covering energy efficiency and renewable energy buildings in the tax legislation are limited and do not provide much advantage for the cost of green buildings. For this reason, regulations that will provide financial advantages for green buildings are needed, taking into account country practices. In this context (Özdemir, 2023: 80-81):

[16] Official Gazette of the Republic of Türkiye, N:18563, D:02.11.1984.
[17] Official Gazette of the Republic of Türkiye, N:29796, D:09.08.2016.
[18] Official Gazette of the Republic of Türkiye, N:11751, D:11.07.1964.
[19] Official Gazette of the Republic of Türkiye, N:11756, D:17.07.1964.

- Article 21 of the ITL states that regulations can be made for green buildings within the scope of the housing rental income exception, such buildings can benefit from the said exception, and an additional or increased amount of exemption regulation can be suggested.

- It is possible to encourage those who undertake the construction of green buildings or own green buildings with the exemptions provided for the buildings constructed within the scope of the Investment Incentive Certificate and the discounts on income tax and property tax.

- In the Property Tax Law[20] No. 1319, it is necessary to provide property tax deductions or tax exemptions and tax credits for green buildings, considering the practices of other countries. It may be recommended to provide incentives to reduce the cost of the taxpayer who undertakes the construction of green buildings, for example, through tax credits, allowing taxpayers to benefit from tax credits for a certain proportion of the costs they incur when they make energy investments in accordance with green buildings, and to ensure that they use a certain amount of energy production tax credits in their energy production.

There are no satisfactory tax incentives for buildings in Türkiye. In order to alleviate and encourage the fiscal burden on homeowners of energy-efficient expenditures on the construction or renovation of houses with great energy potential, exemption and discount mechanisms should be considered in some taxes for this area only. In this context, tax advantages are primarily applied to buildings that have not yet undergone the necessary changes for energy efficiency. Then, it should be considered to extend these incentives to new buildings. To achieve this, buildings must first be classified according to their age and a higher advantage should be given to the oldest buildings. In this way, it is thought that it will make a greater contribution to the transformation of the most problematic buildings in terms of efficiency. After this classification is made, the necessary legal changes must be made for tax advantages. First of all, a regulation should be made in the property tax and a temporary exemption should be provided for the old property that has undergone the necessary transformations for energy efficiency. This period may be limited to 5 years. In addition, when valuing buildings that have undergone transformation and increased in value in terms of property tax, paying higher taxes based on the old value should be prevented. Since the property

[20] Official Gazette of the Republic of Türkiye, N:13576, D:11.08.1970.

tax is relatively low compared to other taxes and the expenses required for conversion are high, this advantage alone will not be sufficient. It is inevitable that additional regulations will be made. It would be useful to apply a temporary exemption to the valuable housing tax, similar to the property tax. Even though it can be predicted that very high-value housing have already undergone this transformation to a large extent, it can still be said that it will have a positive effect in terms of showing the strong public will in this area (Değirmendereli and Durukan, 2021: 573).

A higher rate of environmental cleaning tax should be applied to buildings that do not comply with the standards set in green building practice. In order to popularize green buildings, tax incentives must be clearly stated in legal regulations, especially income tax, corporate tax, and VAT laws. Public buildings should also be set as an example to the public by ensuring their compliance with green building criteria (Kaya et al., 2019: 29). In the VAT Law, deliveries of new machinery and equipment to be used in R&D, innovation and design activities for green building construction should be exempt from tax and green building investments should be encouraged. In addition, it is possible to encourage green buildings by applying the incentives given within the scope of exemption of profits from software and R&D activities in technology development zones, within the scope of green building construction (Özdemir, 2023: 81).

One of the important points in tax incentives is to be able to apply tax incentives in the long term. Unfortunately, incentives are often implemented on a short-term basis. Large projects take years to complete. One of the important concerns in the green building market is whether the incentives will be permanent or not. Implementing long-term tax incentives would be a more effective way to encourage green buildings (Kaya et al., 2019: 28).

6. Conclusion

Interest in renewable energy and green energy is rapidly increasing around the world. It is generally accepted that investments in energy efficiency provide net positive benefits. Green building energy certification systems, which were created to monitor the energy consumption of buildings, encourage alternative energy systems and ensure the inspection of buildings. A so-called green building should enable the efficient use of energy, water and other resources, minimize waste production and serve to prevent pollution and environmental degradation. In addition, it is necessary to encourage practices of transforming buildings and other structures, which are considered as triggers of global warming, especially into energy efficient ones.

A wide variety of incentive mechanisms are implemented in many countries around the world to popularize green buildings. When country practices are examined, regional incentives stand out. For example, in Germany, homeowners are offered some tax advantages that allow them to deduct income taxes. In this context, it is aimed to provide a serious advantage to homeowners over 10 years old. In Spain, in addition to the tax deductions for green buildings for energy efficiency in buildings, an additional tax deduction of 20% is foreseen for improvement works related to heating and cooling systems. The common feature of almost all of the 6 countries examined within the scope of the study is that arrangements are made in the form of income or corporate tax reductions and property tax reductions or exemptions for the construction of buildings. At the same time, in most countries, studies on green buildings are implemented in the form of certification programs, legal regulations, and incentive programs for green projects. Awareness about green building is increasing day by day. In Türkiye, most of the houses were built without any energy efficiency criteria, and it is known that especially old houses have high energy consumption. Converting their homes to be energy efficient requires homeowners to bear a certain cost, and homeowners who want to avoid this cost continue to consume high energy in old houses. If homeowners make investments to improve energy efficiency, the country's economy will be better off and homeowners will benefit in the long run. However, homeowners' inability to pay appears to be the most important obstacle to making progress in this regard. Green building needs to be promoted through the adoption of mandatory regulatory measures, assistance programs and subsidies as well as fiscal incentives to expand and increase the energy efficiency retrofit of existing homes. Tax incentives, which are fiscal incentives, are gaining importance in terms of transforming old houses into energy efficient ones and increasing green buildings.

Although there are legal regulations in Türkiye to reduce energy loss from buildings, the only regulation regarding green buildings is the “Green Certificate Regulation for Buildings and Settlements”. While this regulation includes the procedures and principles regarding green buildings, no incentives or support are mentioned. In order to rapidly spread green buildings in Türkiye, it would be appropriate to provide all kinds of facilities, especially tax incentives, on a temporary and short-term basis, by the public authority. For those who build thermal insulation and energy-saving buildings, incentives should be provided for green buildings within the scope of the housing rental income exemption in the ITL. Taxpayers who own green buildings may be exempt or exception from property taxes for a certain period of time. Challenging and encouraging legal regulations regarding the conversion of existing buildings into green buildings and the construction of new buildings as green buildings should

be implemented as soon as possible. In addition, tax incentives offered within the framework of transformation to green buildings should be provided to businesses and residences together.

As a result, regulations containing action plans that incorporate these incentives need to be made quickly by policy makers in Türkiye. In this context, both long-term and short-term policies should be created for tax incentives. One of the most important issues that governments should pay attention to here is to minimize the irrational behaviors created by asymmetric information by being informative and guiding. By discouraging the construction of old-style traditional buildings, the government needs to raise awareness among people about building buildings that comply with green building standards.

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5

DISASTERS AND THEIR IMPACTS

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Abstract

Disasters have occurred in different parts of the world at different time intervals as abnormal events and have attracted the attention and interest of mankind throughout history. The most important reason for this is that disasters cause severe loss of life and property for human beings and other living creatures. With the increase in publications, the fact that disasters occurring anywhere in the world are known by all other people has increased the interest in disasters. At the same time, with the effect of globalization, the economic and social effects of a disaster occurring anywhere in the world can go beyond the borders of that country and affect people living in different countries.

Keywords: Disasters, Natural Disastere, Primary Effects, Secondary Effects, Psycho-Social Effects of Disasters

Jel Codes: I15, E50

1. Introduction

Disaster is defined as "any natural, technological or human-induced event that causes loss of life, physical, economic and social losses for people, affects societies by stopping or interrupting normal life and cannot be handled by local means" (T.U.N, 1992).

Disasters have occurred in different parts of the world at different time intervals as abnormal events and have attracted the attention and interest of mankind throughout history. The most important reason for this is that disasters cause severe loss of life and property for human beings and other living creatures. With the increase in publications, the fact that disasters occurring anywhere in the world are known by all other people has increased the interest in disasters. At the same time, with the effect of globalization, the economic and social effects of a disaster occurring

anywhere in the world can go beyond the borders of that country and affect people living in different countries.

Disasters are analyzed under two main headings as nature-induced and human-induced depending on the causes of their occurrence. Nature-induced disasters are defined as nature-induced events that cause physical, economic, social and psychological losses on all kinds of living or non-living beings, completely or partially stop or interrupt normal human life, and adversely affect people (Gündüz, 2009).

Human-induced disasters, on the other hand, are the events that have no relation with natural events in terms of cause and effect relationship and develop only due to human beings. In terms of human-induced disasters, although innovations and inventions that make life more comfortable occur as a result of rapid developments in industry and technology, new risks that negatively affect human life emerge and the incidence of human-induced disasters increases (Yavuz and Laçiner, 2012). However, although natural disasters occur involuntarily and irresistibly, their effects and severity depend on human beings. The damages caused by disasters may vary depending on the location of settlements, robust and durable construction of buildings, population density, effectiveness of emergency aid and rescue activities and various variables. The conclusion to be drawn from here is that human beings can somehow affect what will happen after and during disasters (Laçiner & Yavuz, 2013).

Our country has experienced many devastating disasters in the past and today, due to its geological structure, climatic characteristics and geographical situation, it experiences frequent nature-induced disasters and relatively fewer human-induced disasters (Altun, 2018). The above-mentioned reasons have made it inevitable to examine all aspects of natural disasters from a scientific point of view. A wide range of academic disciplines ranging from geology, meteorology, psychology, economics, and sociology have conducted studies on natural disasters. This thesis primarily focuses on the definition of disaster and basic issues related to disaster.

2. Natural Disasters

One of the definitions of natural disasters defines a disaster as a situation or event that requires national or international assistance and limits or restricts local response capacity (Kim, 2011). Disasters are a set of human or natural events, the losses caused by which cannot be overcome by society's own efforts and means (UNDHA, 1992). They are natural, technological or human-caused events that cause great physical, economic

or social losses for the whole or part of the society, stop or disrupt daily life and human activities, and the society affected is not sufficient to cope with the situation. Disaster is not only the event itself but also the result of it.

Natural disasters can also be defined as situations that cause a reduction in GDP, national and personal wealth by reducing the capital stock or the productivity of capital on a national or international scale. According to the United Nations, a natural disaster is defined as the inevitability of interregional or international emergency aid in the affected area, the death of a large number of people and the homelessness of a large number of people, causing significant economic destruction, and large-scale insurance cost losses (Akar, 2013). In economic terms, the definition of natural disasters is as follows: These are the events that cause destruction of human, physical or financial capital; decrease or complete cessation of economic activities; significant impact on the expenditures, revenues and expenses of public and private sector institutions (Akar, 2013).

Natural disasters occur suddenly and unexpectedly, causing individual and social damages. Individual damages include loss of life, injury, loss of property, damages and psychological disorders. Social damages include the destruction of all physical and infrastructural elements including social, socioeconomic, economic and political systems. The disaster effect that may occur as a result of an earthquake, which is a natural disaster, results in the destruction of the current social order and the spread of social dissolution. Social disintegration shows the lack of coordination in social life and it is realized when the organized society fails to regulate the relations between individuals, institutions become dysfunctional, and laws are not obeyed. (Tezcan 1995:255-257)

Disasters like Hurricane Mitch are natural events, but their impacts are not. Rather, the effects of natural disasters are the result of people's actions and are determined by the conditions of the country in question, such as poverty, social inequalities and the extent of deforestation, among other factors. Blaikie et al. (1994:3) point out that there is an inherent risk in treating disasters as something unique or as events disconnected from people's daily lives.

Natural disasters have no political, social, economic and cultural boundaries and affect continents, countries, communities, families and individuals differently depending on their geographical location, risk exposure and lifestyle choices. Globally, the frequency, severity and magnitude of natural disasters are increasing, with economic losses estimated at US$7 trillion between 1900 and 2015 (Daniell et al., 2016). No country is immune to disasters and designing and implementing

effective disaster preparedness and mitigation strategies and programs is vital to ensure community well-being and help build social resilience to disasters. However, individuals and families in a community have different levels of disaster vulnerability that affect how they prepare for, respond to and recover from a disaster (Jackson et al., 2017).

Globally, there is an increase in the intensity and frequency of natural disasters (Panwar and Sen 2019), which are responsible for health risks, building damage, water quality degradation, property price fluctuations, productivity loss, and loss of precious human lives (Song et al. 2017). It is therefore recommended that governments, local institutions and development organizations pay special attention to building disaster resilience (Gaiha et al. 2010). Rebuilding destroyed infrastructures (e.g. roads, buildings and bridges) leads to higher government spending, budget adjustments and economic contraction during disasters (Shi and Sun 2021). The phenomenon of natural disasters is ever-present in all geographical regions, albeit with different intensity. However, mitigation policies can reduce post-disaster losses; preventive actions tend to reduce deaths and injuries because it is difficult to prevent natural hazards from occurring (Taghizadeh-Hesary et al. 2021). Therefore, this paper also discusses the role of disaster resilience in coping with natural disasters.

3. General Effects of Disasters

Disasters have a major impact on the living conditions, economic performance and environmental assets and services of affected countries or regions. The consequences can be long-term and even irreversibly affect economic and social structures and the environment. In industrialized countries, while disasters cause great damage to large capital endowments, the loss of human life is limited thanks to, among other factors, the availability of effective early warning and evacuation systems, better urban planning and the enforcement of strict building codes and standards. In developing countries, on the other hand, fatalities are generally higher due to the lack or inadequacy of forecasting and evacuation programs. Although capital losses are smaller in absolute terms compared to those in developed countries, their relative weight and overall impact can be very significant, even affecting sustainability. (Roberto 1989)

Whether disasters are natural or man-made, their consequences result from a combination of human action and interaction with nature's cycles or systems. Disasters occur frequently around the world and have been increasing in frequency and intensity in recent decades. They can lead to widespread loss of life, affect large segments of the population directly and

indirectly (primary or secondary), and cause significant environmental damage and large-scale economic and social harm.

Globally, statistics show that disasters cause more socially significant and irreversible damage in developing countries, where the poorest and most vulnerable population groups feel the heaviest impact. In developed countries, on the other hand, there has been increased and substantial protection against disasters over the years, thanks to the availability of resources and technology to implement effective prevention, mitigation and planning measures and vulnerability reduction programs. But even in these countries, damages have increased significantly as a result of more intensive and valuable social activities.

Disasters can be classified in many different ways. They are usually sudden and unexpected events - often with loss of human life - that cause suffering and damage to all or part of a society, leading to temporary collapse of existing vital systems, material losses and significant disruption to social and economic activities. Slow-onset and fairly frequent disasters also affect societies and economies and, depending on their intensity and duration, can even lead to food shortages or inadequate provision of basic services.

Depending on their source, disasters can be classified into two main groups: those caused by natural hazards and those caused by human activities. In addition, the impacts of natural disasters are often magnified or exacerbated by prior human intervention. The most common natural disasters in Latin America and the Caribbean are tropical storms and hurricanes, floods, droughts, frost and hailstorms, earthquakes, volcanic eruptions, tsunamis and mudslides. The most common man-made disasters are fires, explosions and oil spills. Some human actions are increasingly causing or exacerbating natural phenomena due to improper use of natural resources or non-compliance with rules and standards for the design and construction of public works. In other words, human intervention can increase the vulnerability of human settlements, production activities, infrastructure and services.

4. Primary Impacts of Disasters

Nature-induced disasters are phenomena that cause extraordinary economic and social devastation and, together with these devastations, eliminate the capacity of the country and society in which they occur to cope. The primary impacts of natural disasters can be stated as follows. When direct effects are mentioned, the negative effects of disasters on public property, private sector, individual property and goods, and population should be understood (Atlı, 2006). Primary impacts include

direct or indirect impacts. The destructive and devastating economic impacts of disasters on public assets, product stocks, capital stocks, infrastructure and population constitute direct impacts. Indirect impacts, on the other hand, are derivatives of direct impacts in a sense, and they start immediately after the disasters and cover a time period of several years. Decreases in production and problems in services such as water, transportation and communication can be given as examples of indirect impacts (Vermeiren, 1989).

5. Secondary Impacts of Disasters

Secondary (after-effects) are those that occur after a certain period of time following the occurrence of the disaster. They are the macroeconomic effects on economic growth, employment and inflation. The most important effect here is the large losses in national income caused by natural disasters (Altun, 2018).

As a result of the unexpected and sudden losses that occur in capital and labor force as a result of disasters, it is a very probable phenomenon to experience undesirable losses in the added value produced in the region with the cessation of production for a certain period or completely. The 1999 Marmara Earthquake, in the report published by the State Planning Organization (DPT), its impact on the amount of capital accumulation and national income was determined as 9 to 13 billion dollars (DPT, 1999). In addition, disasters cause extremely negative and unexpected effects on development and growth potential, especially in countries with developing economies, deepening the existing economic development problems and making them insurmountable (Atlı, 2006).

6. Psycho-Social Effects of Disasters

Physical and psychological devastation in the post-disaster period is also very important. Such psychological problems are faced not only by the people directly exposed to the disaster, but also by the teams coming to help, the spouses and friends of the disaster victims and the people who witness these events through visual, written and social media.

It is possible to categorize individuals affected by disasters into various groups. Those who reside in the area affected by the disaster and directly experience the disaster can be defined as "primary victims". Families and close relatives of the primary victims are called "secondary victims". Official officials, employees of non-governmental organizations and those who help voluntarily in the disaster area are "tertiary victims". And finally,

"quaternary victims" are the people who indirectly follow the disaster through social, written and visual media (Akyılmaz and Karka, 2011).

Disasters remain in the memories for many years after their occurrence and are not forgotten for many years. The negative effects of a major disaster remain in the minds of those who experience the disaster for many years. For those who have lost their relatives in a major disaster, the disaster is a complete psychological devastation and although this devastation is alleviated over the years, its effects never completely end.

7. Conclusion

With the rapidly growing world population and globalization, the incidence, impact and negative consequences of natural disasters are increasing. Today, the economic, social and political consequences of natural disasters attract the attention of social and natural scientists. Like crises, natural disasters cause significant economic destruction in the countries where they occur. The costs of natural disasters are analyzed as direct and indirect. Direct costs are defined as the destruction and destruction of physical capital, especially in the country or region where the disasters occur. Indirect costs include the incremental costs caused by direct costs. Secondary costs include the macroeconomic costs that develop in the long run on the national economy. Disasters cause unpredictable increases in public expenditures in the post-disaster period in the countries or regions where they occur, and a decrease in taxes and public revenues in the region where the disaster is devastating.

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PART III

HISTORY

6

OTTOMAN-BRITISH RELATIONSHIP IN THE PERIOD OF THE COMMITTEE OF UNION AND PROGRESS[1]

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Abstract

This research centers on analyzing the implications of the Committee of Union and Progress (CUP) upon the dynamics of British-Ottoman relations. The focal point of this study lies in discerning the nuanced impact of the Committee of Union and Progress (CUP) on British-Ottoman relations, with a particular emphasis on tracing the evolution of this influence, notably in tandem with the ascendancy of the CUP. During the decline of the Ottoman Empire, the British employed various strategies. At times, cooperative initiatives were engaged with the Ottoman Empire as a strategic measure aimed at forestalling the impending collapse of the imperial entity. However, as the CUP gained prominence, the British influence in Ottoman politics waned. The CUP pursued policies that contradicted British interests as they gained more control within the Ottoman Empire. This led to heightened tensions between the Ottoman Empire and Britain, especially culminating in the onset of World War I. Consequently, the British influence in the Ottoman Empire declined with the rise of the CUP, marking a period defined by conflicting interests. This research specifically delves into the relationship between Britain and the CUP during World War I. The interaction between Britain's policies concerning the Ottomans and the rise of the CUP has been scrutinized, emphasizing how this relationship transformed with the Ottoman Empire's entry into the war. It underscores the diminishing British influence in the Ottoman Empire, notably due to strategic challenges posed by the Ottoman alignment with Germany, prompting a shift in British policies and intensifying tensions. The diminution of British confidence in the Ottoman Empire concomitantly aligned with a contraction in British presence within Ottoman territories. This study clarifies the relationship between the evolution of British policies toward the Ottoman Empire and the rise of the Committee of Union and Progress (CUP)

1 This study was presented with the same title at the 14th International Congress on Current Debates in Social Sciences held in Tbilisi, Georgia on October 11-12, 2023.

Keywords: Ottoman-British Relations, Committee of Union and Progress, Late Ottoman Period, World War I

Jel Codes: B15, Z10, F49

1. Introduction

The complexity of international relations and political transformations during the final era of the Ottoman Empire have constantly intrigued historians and scholars. In this context, the influence of the British on the Ottoman Empire and its evolution, particularly during the era of the Committee of Union and Progress (CUP), holds paramount significance.

The relations between the Ottoman Empire and Britain trace a lengthy history. Throughout the centuries, Britain has engaged in collaborative endeavors with the Ottoman Empire at various levels, particularly supporting policies that aligned with their own strategic interests.

Amidst the economic and political crises faced by the Empire in the 19th century, its alignment with many European powers, including support from other nations against Russia's policies toward the Ottoman Empire assumes considerable importance within this framework (Poole, 1988: 122; Armaoğlu, 1997: 490). The support from England strengthened Empire's position and enabled the Sultan to resist Russian demands (Karal, 2011: 230). It is well documented that economic developments, alongside political considerations, played a pivotal role in shaping the trajectory of Ottoman-British relations. For example, while England maintained a pro-Ottoman stance against Russia, its position could swiftly shift when issues arose regarding debt collection from the Ottoman Empire (Karaca, 2020: 20).

The developments In Europe during the latter quarter of the 19th century significantly shaped Ottoman-British relations. The political unification of Germany and its entry into the global power struggle had a profound impact on the future of these relations. The ties that were established during the reign of Abdulhamid paved the way for cooperation in various fields, notably in transportation, until the decleration of the Second Constitutional Monarchy in 1908. The ongoing development of Ottoman-German relations naturally disturbed the British (Earle, 1972: 69).

However, with the rising popularity of the CUP, the influence of the British on Ottoman policies waned, giving way to more prominent

conflicts of interest. This shift led the Ottoman Empire to enter World War I from a different standpoint.

The relationship between Britain and the CUP played a significant role during World War I. Initially, the British supported the CUP's rise to power, hoping to foster a pro-British regime in the Ottoman Empire. However, when the Ottoman Empire entered the war on the side of the Central Powers, this relationship quickly deteriorated, leading to a complete rupture.

The primary finding of this study demonstrates a decline in British influence on the Ottoman Empire in tandem with the policies of the Committee of Union and Progress.

The Committee, by forming an alliance with Germany to safeguard the Ottoman independence, weakened Britain's influence in the region.

Moreover, the study contributes to a comprehensive understanding of the political intricacies of the late Ottoman Empire, providing researchers with valuable insights into international relations and the political dynamics of that era.

2. The Historical Context of British Influence on the Ottoman Empire

The history of diplomatic relations between the Ottoman Empire and Britain dates to the 16th century. Initially driven by commercial motives, this relationship gradually evolved to encompass political and military dimensions. Particularly in the 19th and 20th centuries, the British influence on the Ottoman Empire noticeably increased. This escalation can be closely associated with various historical factors and temporal events. While political developments largely shaped the course of events, economic reasons also wielded significant influence.

Until the mid-19th century, the Ottoman Empire's relations with Britain were confined to commercial and diplomatic spheres. However, by the second half of the 19th century, the Ottoman Empire's deteriorating position vis-à-vis Europe provided an opportunity for Britain to enhance its influence in the region. During this period, Britain made several efforts to protect the Ottoman Empire against the threat posed by Russia.

Events like the Crimean War (1853-1856) and the Egyptian Question (1882) significantly reshaped Britain's approach towards the Ottoman Empire. These events created more intervention opportunities for Britain

in the Ottoman Empire. As a result, Britain began to exert various economic and political pressures on the Ottoman Empire.

These policies of Britain threatened the independence and sovereignty of the Ottoman Empire, leading to the strengthening of nationalist and independence movements within the empire.

Intriguingly, during this period, a fervent contest emerged between the major powers to partition the Ottoman Empire's territories and expand their spheres of influence. While initially gaining superiority in this competition, Britain detached more influence from the empire, particularly in financial and political domains. However, this advantageous position for Britain began to erode with the unification of Germany and its entry into the global arena, leading to a significant shift in the historical trajectory of Ottoman-British relations (Sander, 1997: 248).

To conclude, British influence on the Ottoman Empire significantly increased in the 19th and 20th centuries because of both historical and political factors. This influence persisted even during the collapse of the Ottoman Empire and in the post-collapse era.

3. Evolution of Ottoman-British Relations: From Constitutional Monarchy to the Union and Progress Era

The re-declaration of the Constitution on July 23, 1908, yielded critical results in the history of the Empire. The Committee of Union and Progress, playing a significant role in the re-declaration of the Constitution, eventually secured a pivotal position in determining the fate of the Empire. Consequently, the Committee held absolute authority in decision-making and policy formulation.

The Reval Negotiations, which played a crucial role in prompting the Committee of Union and Progress against Abdulhamid II, also exerted significant influence in determining foreign policy choices. While Britain's alignment with Russia during these negotiations (Aydın, 2011: 16; Ahmad, 2007: 17) created a rift in the Ottoman perception, initially, the Committee inclined toward collaboration with the British. In turn, the British aimed to increase their influence over Ottoman territories and find an ally against Russia. In this context, the Committee engaged in various agreements with the British. The British closely observed the transition to constitutional rule, particularly its impact on non-Muslim communities. The joint celebration of Muslims and non-Muslims in embracing constitutionalism significantly influenced the British stance. Thus, during the initial phase, the relationship with the Committee of Union and

Progress could be deemed amicable (Aydın, 2011: 23; Ahmad, 1985: 294-295). The British saw the new regime as an opportunity to steer the Ottomans away from their growing closeness with Germany, a trend that had accelerated under Abdulhamid II. The positive reception of the return to constitutional rule by Britain extended beyond the political sphere. The British press welcomed the return of the Ottomans to constitutional rule and saw it as an opportunity for reforms in the Balkans (Ahmad, 2007: 19; Aydın, 2011: 26). The expectation of Britain regarding the declaration of the constitution and the subsequent rising influence of the Unionists seemed justified initially. Indeed, with the new government, there emerged a change in Abdulhamid II's closeness with Germany, leading to an increasing number of Unionists advocating for closer ties with France and Britain. The relationship between the Unionists and the British continued favorably during the tenure of Kâmil Pasha. Known for his pro-British stance (Zürcher, 2016: 147; Akşin, 2002: 28), Kâmil Pasha openly supported this view, stating in the Parliament: "Since some time ago, due to the incorrect policies of the Sublime Porte, the British government had been offended, leading to a plausible alteration in its longstanding policies toward the Ottoman Empire, causing several difficulties in political matters. Presently, through the implementation of a new administration, efforts will be made to foster friendship with Britain, enabling the British government to revert to its former policies and collaborate with the Sublime Porte for the advancement of our nation. Furthermore, other friendly powers, content with our constitutional government, will not refrain from extending aid to the Sublime Government."

As evident in his discourse, Kâmil Paşa advocated maintaining amicable relations with the British, perceiving this as advantageous for the empire. Consequently, the coerced resignation of Kâmil Paşa from the grand vizier position significantly impacted the deterioration of relations with the British. Indeed, Kâmil Pasha's fall from power was viewed by the British Embassy as a direct affront to their country's interests. The Levant Herald, an English-language newspaper in Istanbul with close ties to the embassy, actively published articles in support of Kâmil Pasha (Ahmad, 2007: 57).

Hüseyin Hilmi Paşa's positive messages upon assuming Kâmil Paşa's position failed to alleviate the emerging crisis of confidence. This situation compelled the Committee of Union and Progress (CUP) to provide assurances to the British Embassy regarding the new grand vizier. Moreover, to support this assurance, Rıfat Paşa, known for his pro-British stance, was appointed as the Foreign Minister in the new cabinet. However, despite these affirmative steps, they did not alter Britain's negative perceptions of the CUP (Aydın, 2011: 33). As a result, due to their lack of trust in the CUP, the British shifted their support towards

political actors who opposed the CUP. It is known that the CUP at this stage attempted to establish a more balanced relationship with Britain. Following the reinstatement of the constitutional regime, Ottoman-British relations were, metaphorically speaking, shaped under the shadow of German influence. During this phase, although the CUP stood closer to Britain for a certain period, the military tended to lean towards German doctrines. Despite the CUP's efforts, Britain continued to remain aloof. The Lynch incident in 1909 further solidified British opposition to the CUP (Akşin, 2002: 36).

In conclusion, following the declaration of the Second Constitutional Era when the CUP emerged as a prominent political actor, the British chose to maintain a harmonious relationship with the new administration for their own strategic interests. The presence of pro-British figures such as Kâmil Paşa in significant positions contributed to the continuation of this relationship. Over time, this situation reversed, prompting the British to support new political actors opposed to the CUP, aligning their relationship with the CUP based entirely on their interests in the Middle East. They supported the CUP in periods that didn't interfere with their interests, but adopted an opposite stance when these interests were compromised.

4. Ottoman-British Relations under the Committee of Union and Progress's Absolute Rule

Kâmil Pasha's tenure as Grand Vizier commenced on August 7, 1908, and concluded on February 13, 1909. His government, renowned for its pro-British stance, succumbed after failing to garner parliamentary approval due to his waning struggle against the Unionists. As a result, Hüseyin Hilmi Pasha assumed power, signaling the demise of Kâmil Pasha's era.

The overthrow of the pro-British Kâmil Pasha was not well-received in Britain. As a response, Britain started to throw its support behind the Ahrar Party (Freedom Party), in opposition to the Unionists (Soy, 2008: 161). Subsequently, the Unionists' influence in state governance began to steadily grow. The power transition presented substantial opportunities for the Unionists, who under the new leadership of Hussein Hilmi Pasha, engaged in more harmonious cooperation with the government.

In light of these changes, the Unionists reaffirmed their commitment to a steadfast foreign policy during this new administration, demonstrating their dedication to maintaining cooperation with the British.

At the onset of the First Balkan War, the Unionists, to garner support from European countries, reinstated Kâmil Pasha as Grand Vizier, capitalizing on his known friendship with the British. Assuming office on October 29, 1912, Kâmil Pasha promptly sent a letter to Edward Grey, the British Foreign Secretary. In his letter, he appealed for British intervention and urged them to influence Russia to bring an end to the war (Ahmad, 2007: 142). However, Kâmil Pasha's diplomatic efforts proved unsuccessful as the Ottoman army suffered a decisive defeat at the hands of the Balkan states.

Confronted with resistance and pressure from the Committee of Union and Progress, Kâmil Pasha remained steadfast in his pursuit of negotiating an end to the war. His stance, combined with his initial appointment that had garnered disapproval from the Unionists since the outset, provided them with a pretext for orchestrating the Raid on the Sublime Porte on January 23, 1913. This event witnessed the Unionists forcibly obtaining Kâmil Pasha's resignation and staging a coup, resulting in the formation of a new cabinet the following day. Mahmut Şevket Pasha assumed both the roles of Grand Vizier and Minister of War (Güneş, 2012: 149).

In the wake of the coup, Kâmil Pasha sought refuge in Egypt. There, he actively pursued negotiations with the British, predicting that the Unionists' grip on power would prove ephemeral and asserting his claim to future political ascendency (Ahmad, 2007: 159). Nevertheless, his hopes for British backing proved illusory.

The assassination of Grand Vizier Mahmut Şevket Pasha on June 11, 1913, ushered in a new era of political turmoil in the Ottoman Empire. This event led to the formation of a new government under the leadership of Said Halim Pasha, who appointed Enver Pasha as Minister of War. This administration marked a significant shift in Ottoman foreign policy, as it sought to align itself with Germany rather than Britain.

As the First World War approached, the Ottoman Empire found itself caught between the two emerging powers. Despite its recent estrangement from Britain, the Ottoman administration attempted to negotiate an alliance with the British. However, these negotiations proved unsuccessful, leaving the Ottoman Empire with few viable options.

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A pivotal event that further strained relations between the Ottoman Empire and Britain was the Goeben-Breslau incident. In February 1914, the Ottoman Empire purchased two German warships, the Goeben and the Breslau, but Britain refused to hand them over. This act of defiance greatly angered the Ottoman government, which ultimately seized the ships and incorporated them into its own fleet.

This incident marked a turning point in Ottoman-British relations and played a significant role in the Ottoman Empire's decision to join the First World War on the side of Germany. The Ottoman-German alliance not only reshaped the political landscape of the era but also had a lasting impact on the subsequent dynamics between the two nations.

5. Conclusion

The long-standing Ottoman-British relations began to evolve due to changing power balances and political developments, especially from the 19th century onwards. Both internal political dynamics within the Ottoman Empire and developments in Europe significantly influenced these relations. The Empire's strengthening ties with Germany towards the end of the century became a point of tension with Britain. Additionally, the stance of certain British politicians, particularly the negative rhetoric of William Ewart Gladstone, the Liberal Party leader, towards the Ottoman Empire, played a critical role in shaping British politics up until World War I.

The proclamation of the Second Constitutional Era in 1908 marked a watershed moment in Ottoman history, ushering in a period of political reform and the reawakening of a more liberal and progressive spirit. This transformation had a profound impact on Ottoman-British relations, as it signaled a shift away from the close ties that had been forged between the Ottoman Empire and Germany under Sultan Abdul Hamid II.

The new Ottoman leadership, comprising both Liberals and Unionists, was eager to establish cordial relations with Britain and France. This

newfound orientation reflected the widespread desire among Ottoman intellectuals and political elites to modernize the empire and integrate it more closely with the Western world. Britain, for its part, was equally receptive to improving relations with the Ottoman Empire, viewing it as a potential ally against the growing power of Germany in the region.

The British Foreign Office, welcoming the overthrow of Sultan Abdul Hamid II, sought to cultivate a "friendly" relationship with the new Ottoman regime. The new Ottoman government, similarly, was eager to avoid conflict with Britain and other European powers. The Unionists, however, adopted a more pragmatic approach in their dealings with Britain, prioritizing "national interests" above all else. This stance resulted in a relationship that alternated between periods of relative calm and heightened tensions.

The events leading up to World War I decisively shaped the trajectory of Anglo-Ottoman relations. The Unionists' failed attempts to forge an alliance with the Triple Entente, coupled with their subsequent alignment with Germany, marked a significant turning point. This irreversible shift in the power dynamic between the two nations was further exacerbated by Britain's involvement in the dissolution of the Ottoman Empire and the occupation of Anatolia.

As a result of these events, Anglo-Ottoman relations remained strained and conflictual throughout the post-war period, extending until the establishment of the Turkish Republic. The Ottoman Empire's inability to regain its former status and Britain's lingering influence in the region perpetuated a complex and often antagonistic relationship between the two powers.

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