UNDERSTANDING THE EFFECTS OF GOVERNMENT TRANSFERS DURING
THE COVID-19 PANDEMIC ON POVERTY AND INEQUALITY IN TÜRKİYE

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ABSTRACT

UNDERSTANDING THE EFFECTS OF GOVERNMENT TRANSFERS DURING
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This study, examines the effects of short-time working allowance, cash wage support and pandemic support program (unrequited cash transfer to households) implemented in 2020 in order to reduce the effects of the Covid-19 pandemic on the labor market and to ensure continuity in household cash flow within the scope of Turkey's 'Economic Stability Shield Package'. In addition, we analyze the contribution of direct transfers, whose scope and size increased in 2020, to reducing poverty and improving income distribution. For this purpose, we utilize data from the 2020 and 2021 Turkey Income and Living Conditions Survey dataset and adopt the Commitment to Equity Methodology. In 2020, the income inequality and poverty improvement contribution of government transfers are compared with 2019 as a whole and on a program basis. The results show that the effect of direct transfers is higher in 2020 than in 2019 to improve income inequality and poverty. Transfers to support employee income result in an additional improvement in the poverty headcount ratio and poverty gap, while reducing the effectiveness of poverty reduction. The short-time working allowance and pandemic support program have the highest contribution to poverty headcount

ratio reduction, while the contribution of cash wage support is limited. Sickness benefit is also at the forefront with the highest rate of increase in the marginal contribution to poverty reduction in 2020.

ÖZ

COVID-19 PANDEMİSİ DÖNEMİNDE HÜKÜMET TRANSFERLERİNİN TÜRKİYE'DEKİ YOKSULLUK VE EŞİTSİZLİK ÜZERİNDEKİ ETKİLERİNİ ANLAMAK

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Şubat 2023, 80 sayfa

Bu çalışma, Türkiye'nin 'Ekonomik İstikrar Kalkanı Paketi' kapsamında Kovid-19 salgınının işgücü piyasası üzerindeki etkilerini azaltmak ve hane halkı nakit akışında sürekliliği sağlamak amacıyla 2020 yılında uygulanan kısa çalışma ödeneği, nakdi ücret desteği ve Pandemi destek programı (hane halkına verilen karşılıksız nakit transferi) uygulamalarının yanı sıra 2020 yılında kapsamı ve büyüklüğü artan doğrudan transferlerin yoksulluk ve gelir dağılımı üzerindeki etkilerini incelemektedir. Bu amaçla 2020 ve 2021 yılı Türkiye Gelir ve Yaşam Koşulları Araştırması verisi kullanılmakta ve Eşitlik Taahhüdü Metodolojisi benimsenmektedir. 2020 yılında hükümet transferlerinin gelir eşitsizliği ve yoksulluğu iyileştirici katkısı bütün olarak ve program bazında 2019 yılıyla karşılaştırılmaktadır. Sonuçlar, 2020 yılında doğrudan transferlerinin gelir eşitsizliği ve yoksulluk üzerindeki iyileştirici etkisinin 2019 yılından fazla olduğunu göstermektedir. Çalışan gelirini desteklemek için yapılan transferler, yoksulluk oranı ve yoksulluk açığında ek bir iyileşme meydana getirirken, yoksulluğu azaltmanın etkinliğini azaltmaktadır. Eşitsizliğin ve yoksulluğun azaltılmasına en fazla katkı kısa çalışma ödeneği ve Pandemi destek

programından gelirken, nakdi ücret desteğinin katkısı sınırlı düzeydedir. Pandemide yoksulluk üzerindeki etkisi en fazla artan doğrudan transfer ise hastalık yardımıdır.

Anahtar Kelimeler: Gini, Yoksulluk, Kovid-19, Doğrudan Transfer, Kısa Çalışma Ödeneği

To my beloved son, Ezel Emir Ünal

ACKNOWLEDGMENTS

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CBRT	Central Bank Republic of Turkey
CEQ	Commitment to Equity
EMDEs	Emerging Market and Developing Economies
EU	European Union
Eurostat	European Union Statistical Office
ILO	International Labor Organization
IMF	International Monetary Fund
MoFLSS	(Abolished) Ministry of Family, Labor and Social Services
MoFSS	Ministry of Family and Social Services
OECD	Organization for Economic Cooperation and Development
SILC	Survey of Income and Living Conditions
STW	Short-Time Working
TurkStat	Turkish Statistical Institute
UNCTAD	United Nations Conference on Trade and Development

CHAPTER 1

INTRODUCTION

The economic crisis triggered by Covid-19 health crisis has caused the deepest contraction in global GDP since the global crisis of 2008-2009 (IMF, 2021a), with the slowdown in growth, there was a risk of partial reversal of previous years' gains in poverty and income distribution (Gentilini et al., 2020). Many countries have announced extensive policy packages in order to stimulate the economy and help reduce the negative impact of the pandemic on individuals and firms. The common purpose of these packages is to control the spread of the disease, to restore health to the infected, to protect people and companies from economic collapse by preventing the layoffs and bankruptcy of companies affected from the debilitating Covid-19 pandemic (OECD, 2020).

'The Economic Stability Shield Package' was announced in Turkey, to deal with the economic fallout following the detection of the first case in Turkey in March 2020 and the subsequent containment measures. Policies such as credit interest reduction, tax deferrals, short-time working allowance, cash wage support and cash transfer for households (Pandemic social support program) were implemented within the scope of this Package (PER,2021). In addition, the social protection network against the pandemic was strengthened by increasing the scope and size of direct transfers in 2020.

As a result of the measures taken regarding social assistance during the pandemic in Turkey, the number of households receiving social assistance increased from 3.2 million in 2019 to 6.6 million in 2020 and the total size of social assistance increased from 55 billion TL in 2019 to 69 billion TL in 2020 (MoFLSS, 2020). Also, the total amount of short-time working allowance and cash wage support applied to compensate for the loss in employee incomes and to protect employment is approximately 29.8 billion TL in 2020.

The aim of the thesis is to examine the impact of the Covid-19 pandemic on income distribution and poverty, based on official survey data, and to analyze the contribution of income support and increased direct transfers to income equality and poverty reduction in 2020. In this study, answers to the following research questions are sought by using the Income and Living Conditions Survey (SILC) 2020 and 2021 results, which represent equivalent household disposable incomes in 2019 and 2020, and the Commitment to Equality (CEQ) methodology (Lustig 2018) for empirical analysis.

- Does the Covid-19 outbreak have a positive or negative effect on income distribution and poverty indicators in Turkey? How is the direction and magnitude of this effect compared to other shocks?

- What is the impact of the social assistance, whose scope and size increase in 2020, on income equality and poverty reduction? What is the contribution of direct transfers compared to pre-pandemic?

- Are the measures to support household and employee incomes, which have been actively implemented in 2020, successful in combating poverty and income equality? How much of an impact has it had on poverty and income distribution indicators compared to other transfers?

CEQ methodology allows a comprehensive analysis of the impact of transfer policy on income distribution and poverty, however the scope of direct transfers covered in the study is limited by the SILC microdata. While many direct transfers can be reached on a program basis in the SILC questionnaire, inclusion of some transfers in the analysis required various assumptions from the data in SILC and administrative data. In addition, the analysis is a partial equilibrium analysis and spillover effects, behavioral effects and externalities of financial interventions are not analyzed within the scope of the analysis.

There are many studies in the literature that try to estimate the effects of the Covid-19 pandemic on the income distribution and poverty of countries. In studies, it is predicted that the economic crisis triggered by the Covid-19 pandemic will have a serious effect on poverty and it is shown that the policies implemented will reduce this effect (Han et al., 2020; Lusting et al., 2020; Almeida et al., 2021; WB 2022a; Yeldan et al., 2023).

However, since surveys representing throughout the population of country on income and living conditions are usually published with a delay of approximately 2 years from the time of the interview, various simulation techniques or telephone surveys were used in these studies.

In Turkey, there are very few studies examining the effects of transfers on income equality and poverty during the pandemic period based on empirical analysis. Tekgüç and Yeldan (2021) and Bayar and Günçavdı (2022) estimated the impact of the Covid-19 pandemic, based on the household income of 2017 and 2015, without official data representing the household income for 2020. Tekgüç and Yeldan (2021) and Bayar and Günçavdı (2022) estimated the impact of the Covid-19 outbreak and government policies on household income in the absence of official data for 2020. Tekgüç and Yeldan (2021) and Bayar and Günçavdı (2022) used the household income of 2017 and 2015 (SILC 2018 and SILC 2016), respectively, to reach the household income of 2020 and estimated the effect of transfers on the income and poverty rate.

Bayar ve Günçavdı (2022) show that Covid-19 pandemic caused a serious deterioration in income distribution, and the Gini coefficient increased to 0.553 in the absence of short-time working allowance. In addition, the short-time working allowance alleviates the deterioration in income inequality, bringing the level of the Gini coefficient from 0.553 to 0.40, the poverty headcount ratio also decreased from 29.9 percent to 20.5 percent in the presence of short-time working allowance. Tekgüç ve Yeldan (2021) found that the poverty rate, which was announced as 13.5 percent by TurkStat with reference to 2017 income, would increase to 20 percent in 2020 and government policies could reduce this rate to 18 percent in an optimistic scenario.

This thesis contributes to the literature by examining the effects of direct transfers, the scope and amount of which increased in Turkey during the pandemic period, and the income support transfers applied as short-time working allowance and cash wage support in 2020 on poverty and income distribution indicators. In addition, it is aimed that the thesis will contribute to Turkey's comparable on the effectiveness of rescue packages whose scope, size and duration differ from country to country, to be used in following studies.

The study consists of 5 chapters. Chapter 1 makes an introduction. In Chapter 2, we examine the development of income distribution and poverty indicators in Turkey over the years using the results of SILC for the period 2006-2021. Thus, we have evaluated the whole picture of how the Covid-19 pandemic and other shocks affect income distribution and poverty indicators. In Chapter 3, discusses the extent and components of the measures taken by Turkey and other countries to protect their people, firms and workers from the effects of the Covid-19 crisis. The studies in the literature on the empirical analyzes and the results of how the Covid-19 pandemics affects the income distribution and poverty rates in the worldwide and in Turkey are given in the Chapter 4. Chapter 5 presents the description of the data, methodology and approach and the outcomes of empirical analysis. Finally, Chapter 6 concludes.

CHAPTER 2

INCOME DISTRIBUTION AND POVERTY IN TURKEY

To analyze the effects of the Covid-19 pandemic on income distribution and poverty rates, and to answer the question of how individual incomes were affected by the epidemic, the development of income distribution and poverty rates were primarily examined. Demonstrating which processes and mechanisms in the economy affect the change in indicators of poverty and income distribution will help to better understand the impact of the economic shock created by the epidemic on these indicators. For this purpose, the results of the SILC for the period 2006-2021 were used which is including the period of the Covid-19 pandemic broke out globally for the first time.[1]

2.1. Income Distribution

Income distribution is basically driven by tax and transfer policies. Although tax and transfer policies are used as a means of directly affecting income distribution, the economic conjuncture and structural reforms have a great contribution to income distribution and the formation of poverty. In order to examine how income distribution has been affected by these interventions over the years, the level of equivalent household income and growth rates in Turkey have been examined.

The highest growth in the mean annual equivalized household real disposable individual income (individual income) in Turkey was in 2006. The economic recovery after the 2001 crisis, economic growth for 5 consecutive years, low unemployment rate and single-digit inflation rate differentiated 2006 positively from other years. However, the upward trend in individual incomes was interrupted in 2007 due to the slowdown in GDP and the fallout from the 2008-2009 global crisis.

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[1] Income information for individuals and households in the survey is based on the previous year of the survey year. Therefore, the reference year of the income is used instead of the year of the survey in the table and graphic representations. This display facilitates the evaluation of poverty and income distribution indicators together with economic developments.
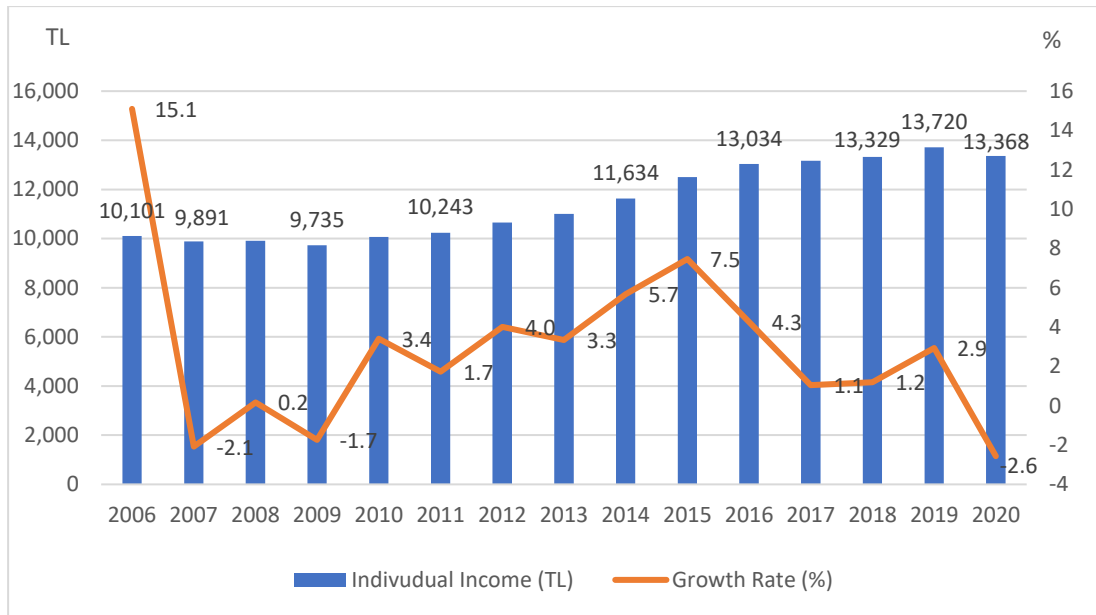
Figure 2.1 The Mean Annual Real Income of Individual (TL) and Growth Rate (%) in the Period of 2006-2020, in Turkey, (Real Price of 2009)

Individual income decreased by 2.1 percent in 2007 and by 1.7 percent in 2009, and there was no significant increase in incomes in 2008. Thus, the mean annual equivalized household real disposable income, which was approximately 10 thousand TL in 2006, could only reach the same level in 2010 (10,068 TL).

Individual income tended to increase in the 2010-2015 period with the effect of high economic growth in Turkey after the global finance crisis. The mean annual real income of an individual in Turkey has increased from 10 thousand TL in 2010 to 12.5 thousand TL in 2015. The rate of increase in individual income decreased in the 2015-2020 period, due to the destabilization of the economy due to the 15th July coup attempt, the increase in labor costs and the fact that the 2017 and 2018 minimum wage increases were below the inflation rate. During the peak of the Covid-19 pandemic, the mean annual real income of individual decreased by 2.6 percent compared to 2019. In Turkey, the mean annual real income of individual is 13,368 TL in 2020. The rate of increase in individual incomes in 2020 was the lowest since the global financial crisis.
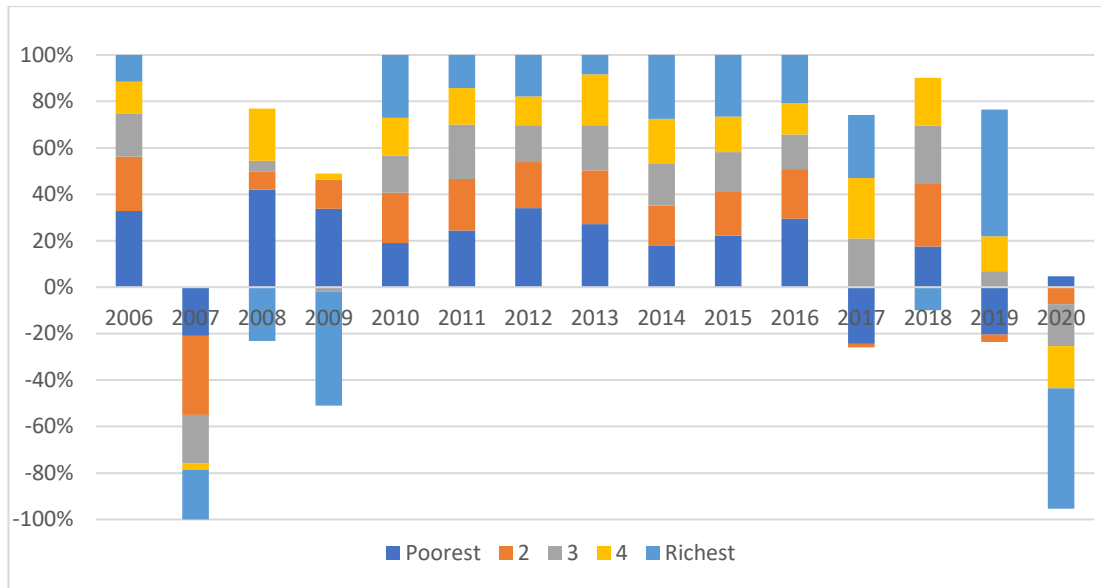
Figure 2.2 Contribution of Income Groups to Annual Average Equivalent Individual Income Increase in Turkey, %

The nature of the economic shocks determines which income group is affected more by the crisis (Figure 2.2). The last %20 percent with the highest income group (the richest)[2] was most affected by the slowdown in growth of the Turkish economy in 2008 due to the global financial crisis and the 4.8 percent decrease in Turkey's GDP in 2009. The devastating economic impact of the pandemic, which disrupted lives all around the world in 2020, was manifested in Turkey with the decrease in individual income in almost all income groups. While the highest contribution to the decrease in the mean real income of individual came from the upper income group, there was no loss in the income of the poorest income group during the pandemic period compared to 2019. The effect of the Covid-19 support package announced to protect employment and compensate for income losses during the pandemic period on improving poverty and income inequality will be examined in the following sections.

The cyclical and structural factors in the economy have led the share of 20% income groups in total income to change over time. (Figure 2.3). The share of the first 20%

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[2] According to the SILC results, Turkstat divides the individuals into 5 groups according to their equivalent household disposable income, from smallest to largest. The first 20 percent group defines it as the group with the lowest income (the poorest), and the last 20 percent group defines it as the group with the highest income (the richest).

group increased from 5 percent to 5.9 percent in 2019 compared to 2005 while the share of the last 20% group decreased from 48,4 percent to 47.5 percent in 2020, when the epidemic started, the share of the first and second 20% income groups in total income increased, and the share of the last 20% income group in total income decreased by approximately 1 percentage point more compared to 2019. Although the impact of these changes on income distribution is positive, the income of 40% of the population still constitutes approximately 68 percent of the total income.
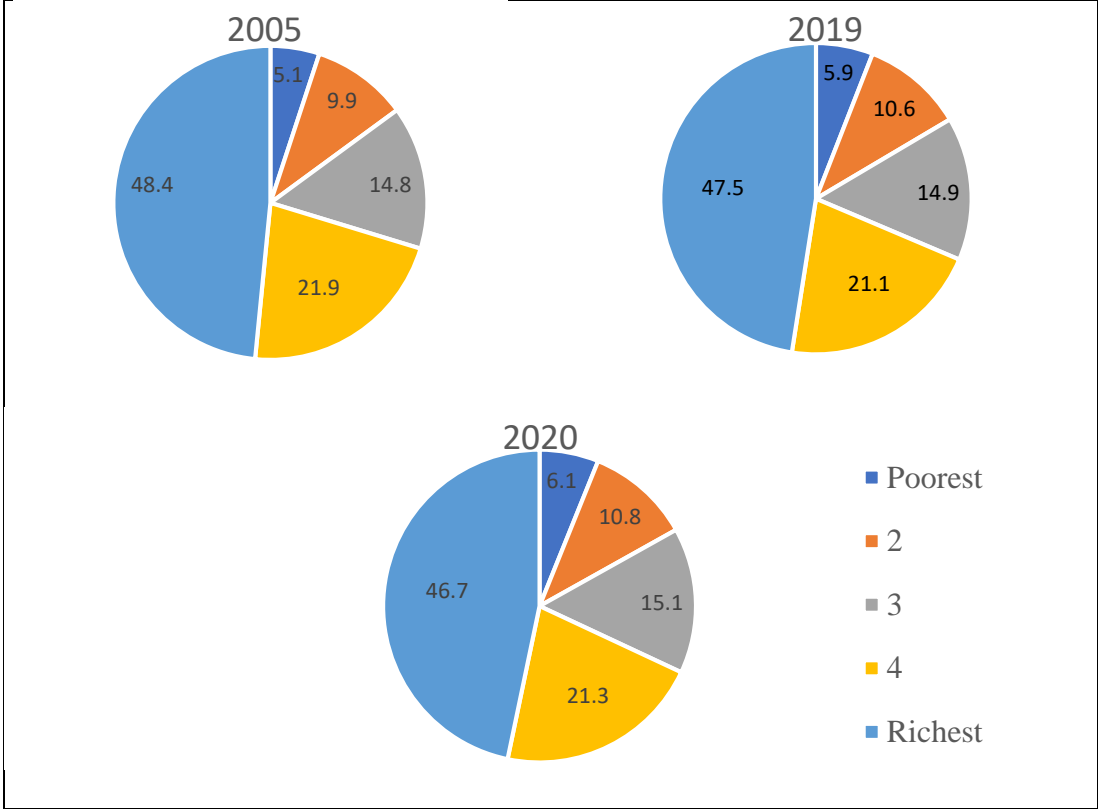
Source: TURKSTAT, SILC 2006-2021

Figure 2.3 Share of Income Groups in Total Income, %

Gini coefficient, percentage share analysis (P80/P20 and P90/P10 ratios), which are indicators that help to understand how the economic shifts, tax and transfer policies, labor market and wage policies have changed the income distribution over the years, have been examined for the period 2005-2020 (Figure 2.4). Gini coefficient by equivalised disposable income decreased from 0.428 in 2005 to 0.401 in 2020. In the years of economic shocks, the decrease in the annual average individual income of the upper income group had a positive effect on the income distribution, and Gini decreased in 2009 and 2020 compared to the previous year.
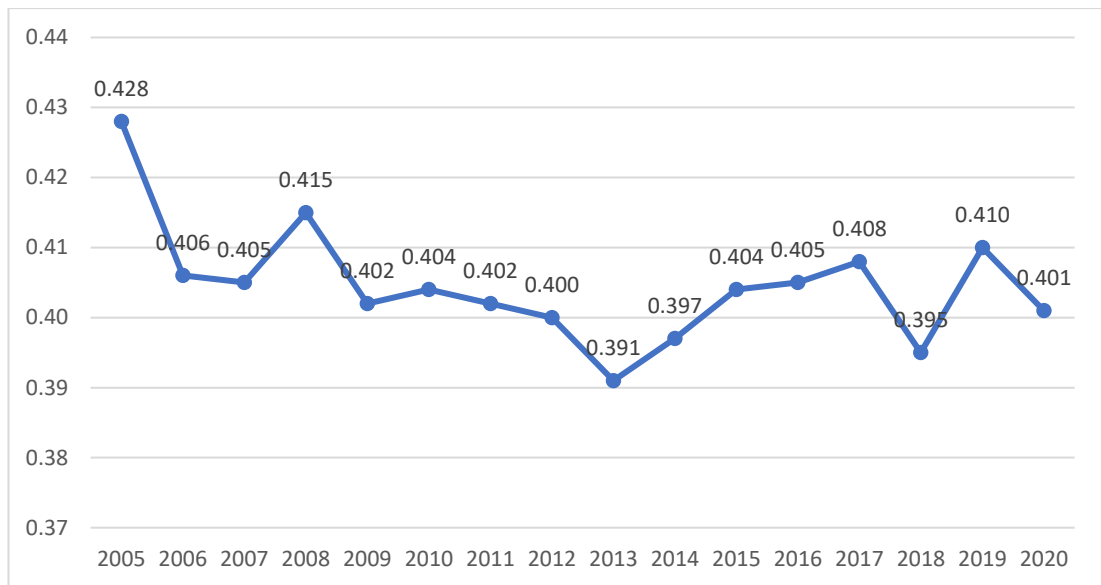
Figure 2.4 Gini Coefficient by Equivalized Disposable Income, 2005-2020

The P80/P20 and P90/P10 ratios and the Gini coefficient change over the years are similar (Figure 2.5). The P80/P20 and P90/P10 ratios, which reached their highest levels in 2005 (17.7 and 9.6 in P80/P20 and P90/P10 ratios, respectively) indicate that the income gap between the rich and the poor has deepened. In the Covid-19 pandemic, the income gap between the rich and the poor decreased to 7.6 percent and 13.7 percent in P80/P20 and P90/P10 ratios, respectively. The reason for the improvement in income inequality in the Covid -19 pandemic is the decrease in the annual average real individual income of the individuals in the high income group compared to 2019, and the incomes of those in the lowest income group remained constant.
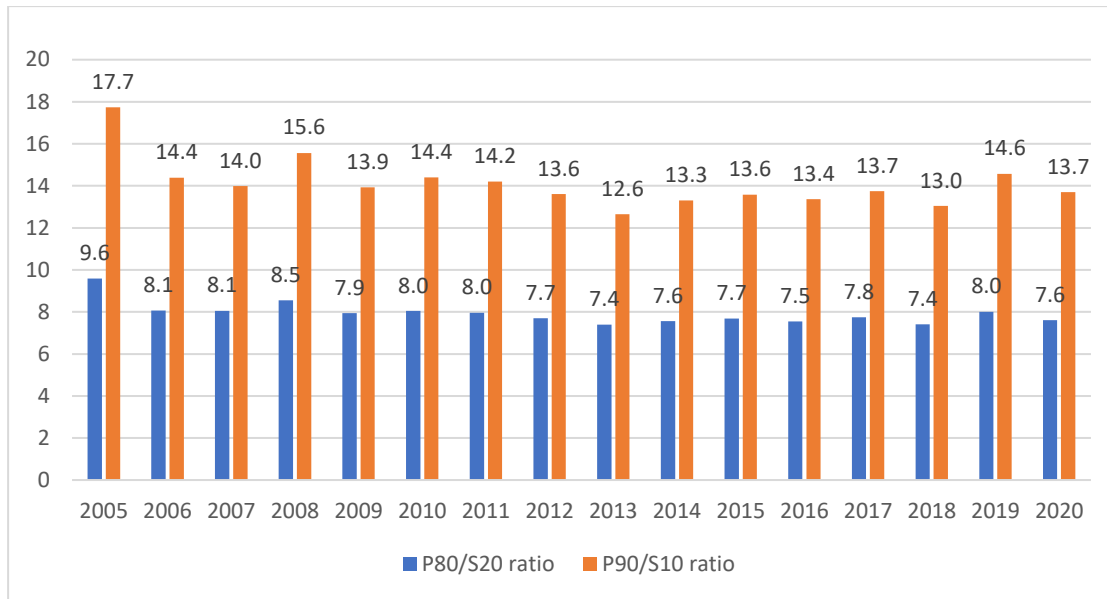
Source: TURKSTAT, SILC 2006-2021

Figure 2.5 P80/P20 and P90/P10 Income Distribution in Turkey, 2005-2020

2.1.1 Economic Activity

When the mean annual real incomes are analyzed in Turkey in the 2005-2020 period, it is seen that the individuals working in the agriculture sector have the lowest income, while the income of the individuals in the service sector is higher than the other sectors (Figure 2.6). Although the mean annual real income of the individuals in the agricultural sector remained at a low level compared to other sectors, it was the only sector with an increase in the individual income during the Covid-19 pandemic. The mean annual real income in the agriculture sector remained stable at the level of approximately 10 thousand TL in the 2016-2019 period, and exceeded 11 thousand TL in 2020.
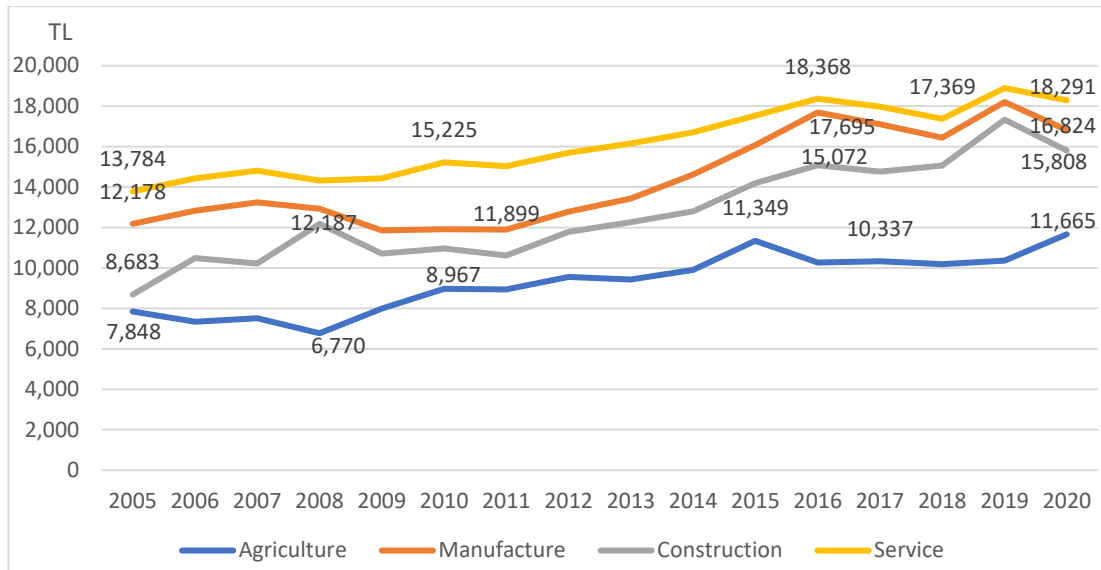
Figure 2.6 Mean Annual Real Income at Main Job by Types of Economic Activity, (at 2009 Price), TL

Those who were most affected by the slowdown in economic activities in 2020 were those working in the construction sector. The mean annual individual real income in the construction sector decreased by 8.8 percent compared to the previous year. In the service sector, which is one of the sectors most affected by the economic fallout due to Covid-19 pandemic, the decrease in the mean annual individual real income was more moderate (3.2 percent) compared to the construction (8.8 percent) and industrial sectors (7.6 percent).

2.1.2 Income Composition

The income compositions of individuals in different percentiles according to the equivalent household disposable income has changed before and after Covid-19 (Figure 2.7). The economic and employment consequences of the Covid-19 crisis have created downward pressure on salaries and wages, causing a decrease in the share of salaries and wages in total income in almost all income groups. The share of salaries and wages in the total income of all income groups except the last 20% income group has decreased, while the share of daily wage (casual) has increased (Figure 2.7).

The significant buffering effect of social transfers in protecting households against income losses has also increased the share of social transfers in total income in each

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income group. While social transfers constituted approximately 19 percent of the income of the first 20% income group in 2019, it increased to approximately 25 percent in 2020. The decline in wages and salaries was largely compensated by social transfers. Despite the decrease in the income from wages and salaries for those in the top 20% with the lowest income, the annual average real individual income remained unchanged compared to the pre-Covid-19 pandemic.

Source: TURKSTAT, SILC 2006-2021

Figure 2.7 Change in Income Composition by Quintile of Income, %

In order to more accurately interpret the effect of increased social transfers on income groups in Covid-19, the distribution of social transfers according to 20% income groups was examined, excluding pensions and survivors' benefits (salary of widows or orphans), which constitute a large part of social transfers (Figure 2.8). The share of social assistance in the disposable income of those in the top 20% with the lowest income is considerably higher in the 2005-2020 period compared to other income groups. Excluding old age and widow-orphan pensions, the share of social transfers in disposable income reached the highest level in the global crisis of the Covid-19 pandemic with 10.43 percent, leaving behind the year 2009, when the effects of the global financial crisis were experienced. Social transfers are used as a shield to protect the poor from the economic effects of the Covid-19 pandemic, and the transfers have helped alleviate the economic burden of the global crisis.
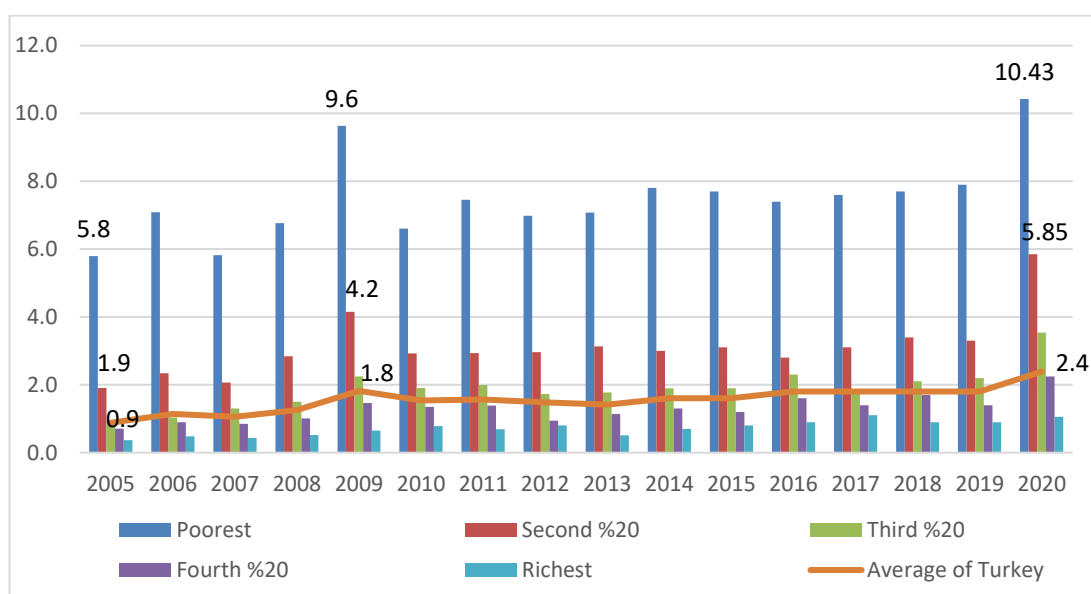
Source: TURKSTAT, SILC 2006-2021

Figure 2.8 Share of Social Transfers (Excluding Pensions of Old Age and Survivors Benefits) in Quintile of Income, %

Although social transfers constitute a large part of the income of the poor, it is not very possible to say that social transfer expenditures mainly target the poor. (Figure 2.9). The lowest income group received 27.2 percent of social transfer expenditures excluding old-age and widowed-orphan pensions in 2005, whereas the last quintile with the highest income received 21.5 percent. Those in the highest income group have

achieved higher levels of social transfer over the years than those in the lower income group. While those in the last quintile could reach 25.7 percent of social transfers (excluding old age and widow-orphan pensions) in 2019, the share of those in the first quintile decreased by 5 percentage points compared to 2005 and declined to 21.6 percent.
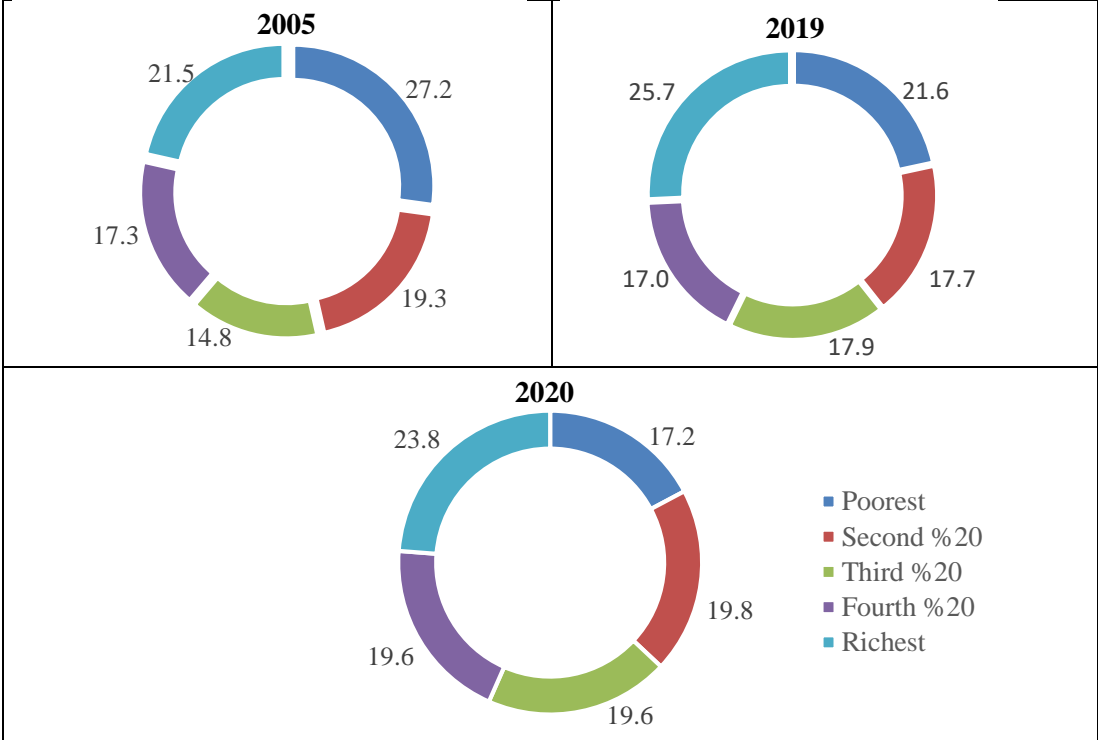
Source: TURKSTAT, SILC 2006-2021

Figure 2.9 Distribution of Social Transfers (Excluding Pensions of Old Age and Survivors Benefits) by Quintile of Income, %

During the Covid-19 pandemic period, those in the lowest income group of 20% continued to be the income group that received the lowest share from social transfers (excluding old-age and widowed-orphan pensions) with 17.22 percent. This trend not favored the poor continued during the Covid-19 pandemic period and those in the lowest income group of 20% became the income group that received the lowest share from social transfers with 17.22 percent. In the light of these developments, in the following sections, using micro data, the distribution of transfers according to income groups will be examined and it will be investigated whether social transfers prioritize the poor.

2.2. Poverty

There are different approaches to measuring the poverty level. In this study, the definition of relative poverty, which is an important component of SILC poverty statistics, will be used. In relative poverty, a certain percentage of the median or average income is determined as the poverty line. TurkStat explains the poverty rate and the poverty gap based on 40%, 50%, 60% and 70% of the equivalized household disposable median income. The at-risk-of-poverty threshold is defined as 60% of median equivalized disposable income after social transfers by EUROSTAT.

According to poverty threshold set at 50% and 60% of median equivalized household disposable income, the highest poverty rates were in 2005 with 18.6 percent and 25.4 percent, respectively (Figure 2.10). The relative poverty rate, calculated on the basis of 50% and 60% of median equivalized household disposable income decreased to the lowest level in 2016 with 13.5 percent and 20 percent, respectively, but increased in the following years. Relative poverty rates increased until 2020, and in 2020, when Covid-19 cases began to surge in Turkey, relative poverty rate by 50% and 60% of median equivalized household disposable income decreased to 14.4 percent and 21.3 percent, respectively.
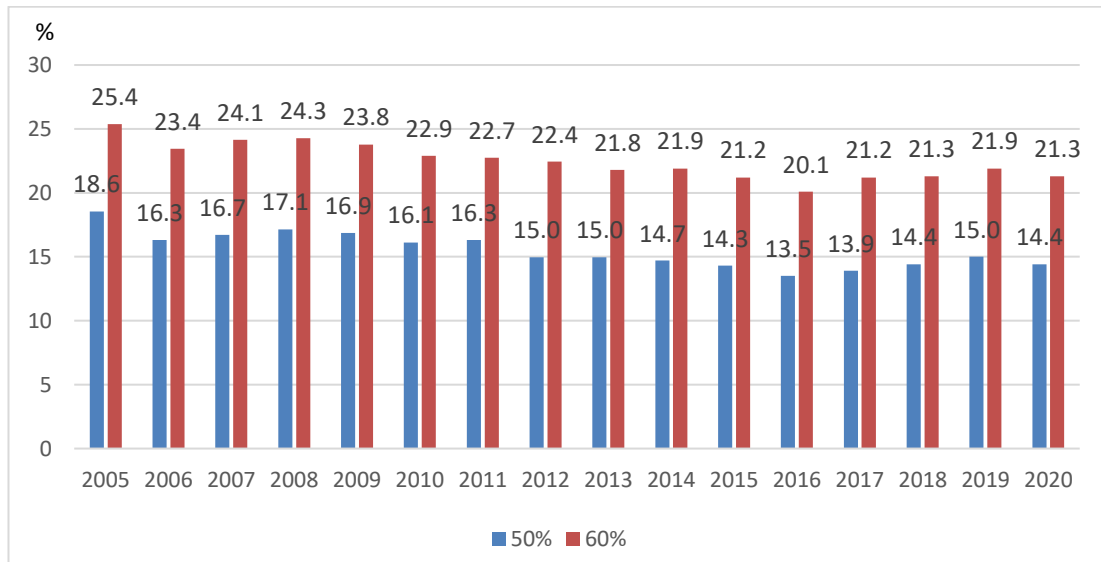
Source: TurkStat, SILC 2006-2021

Figure 2.10 Poverty Headcount Ratio, 2005-2020, (%)

The poverty gap ratio[3], which shows the severity of poverty, has decreased since 2005 and increased after 2016 (Figure 2.11). The poverty gap, which base on 40% of the equivalized household disposable median income, decreased from 29 percent in 2005 to the lowest level of 20 percent in 2016, and increased in the following years to 24 percent in 2020.

The increase in the poverty gap in recent years indicates the decrease in the incomes of individuals below the poverty line. From this perspective, while the relative poverty rates were at the same level in 2020 as in 2015, it became more difficult for an individual who is below the poverty line to come out of this category in 2020 compared to 2015. The poverty lines for 40% of the equivalized household disposable median income are 5,693TL in 2015 and 11,227 in 2020, and a poverty gap index are 20.8 and 24.4 respectively. Thus, an average increase of 1,2 thousand TL per individual in 2015 would eliminate poverty whereas in 2020 the increase that would be required to eradicate poverty was 2,7 thousand TL per individual and the total increase needed to eliminate poverty is TL 231 billion (93 billion TL for 2015).
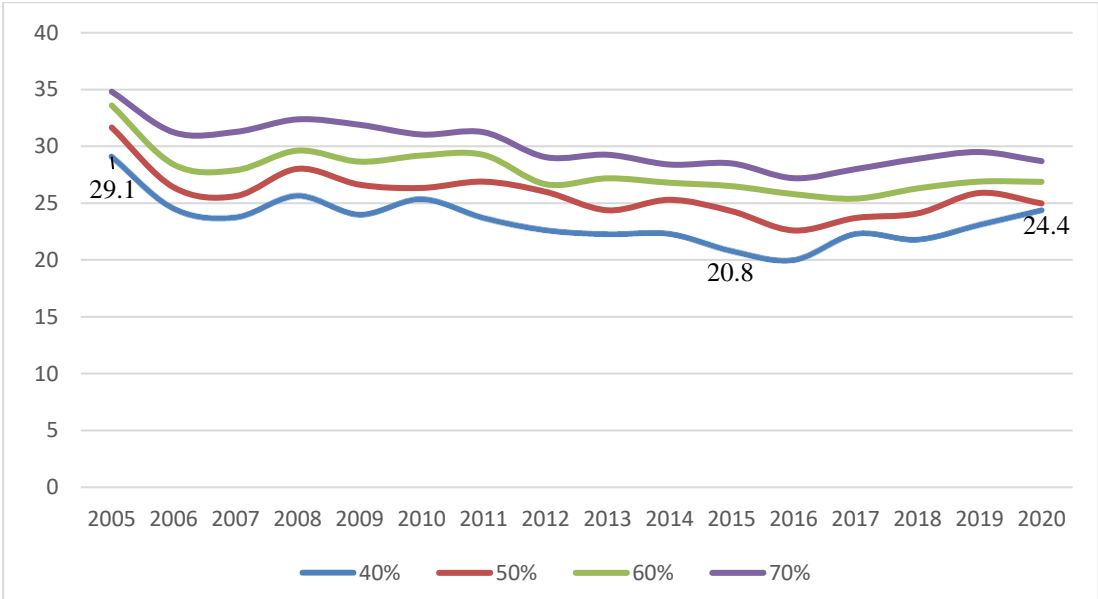
Figure 2.11: Poverty Gap, 2005-2019, (%)

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[3] The poverty gap ratio is defined as a measurement that shows the average income level necessary for the poor to be pushed above the poverty line or average income of the poor below the poverty line. The increase in the poverty gap reflects that poverty in a nation is intensified.

CHAPTER 3

FISCAL RESPONSE to the COVID-19 on GLOBAL

The outbreak and spread of the Covid-19 pandemic threatened the public health worldwide, causing the deterioration of economic activity and negatively affecting social welfare. To stimulate the economy and reduce the negative impact of the pandemic on individuals and companies, many governments have announced economic packages.

In this section, the size and components of the economic packages implemented by the countries to shield households, firms and workers from the effects of the health and economic crisis will be examined.

3.1. Scale and Composition of Fiscal Response

Governments have implemented fiscal measures in different forms and with varying levels of budgetary and debt-related implications, in order to overcome the economic and social challenges posed by the Covid-19 pandemic. The aim of these of packages is to prevent by containing the spread of infectious disease, healing the infected, and to shield households, employees and companies from the economic fallout of the pandemic. Many measures are included in these packages, such as providing unemployment benefits, wage subsidies, income support and social benefits, as well as calling off layoffs and bankruptcies.

According to classification used by the IMF[4], additional spending and revenue (above-the line) measures ($5.2 trillion) and loans, equity injections and guarantees (below-the line) (US$ 5.7 trillion) reached US$ 10.9 trillion as of June 2020 on a global scale.

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[4] IMF classifies all these diversified financial supports as "below the line" and "above the line" measures. Above the line measures refers to additional spending or foregone revenues which directly effect on economic activity, whereas below the line measures refers to equity, loans and guarantees which their impact can be little or no immediate impact on the fiscal deficit (IMF,2020a).

Additional support to households and firms continued in the second half of 2020 and total support reached to 11.7 trillion USD as of October 2020, thus the share of total discretionary fiscal supports in global GDP increased from 9.4 percent to 11.8 percent Policymakers implemented fiscal support of around 16 percent of global GDP for 2021. Of the approximately 16 trillion USD dollars in global pandemic-related fiscal actions taken as of July 2021, 10 trillion USD dollars consists of additional spending and forgone revenue, and 6 trillion USD dollars of government loans, guarantees, and capital injections (Figure 3.1).
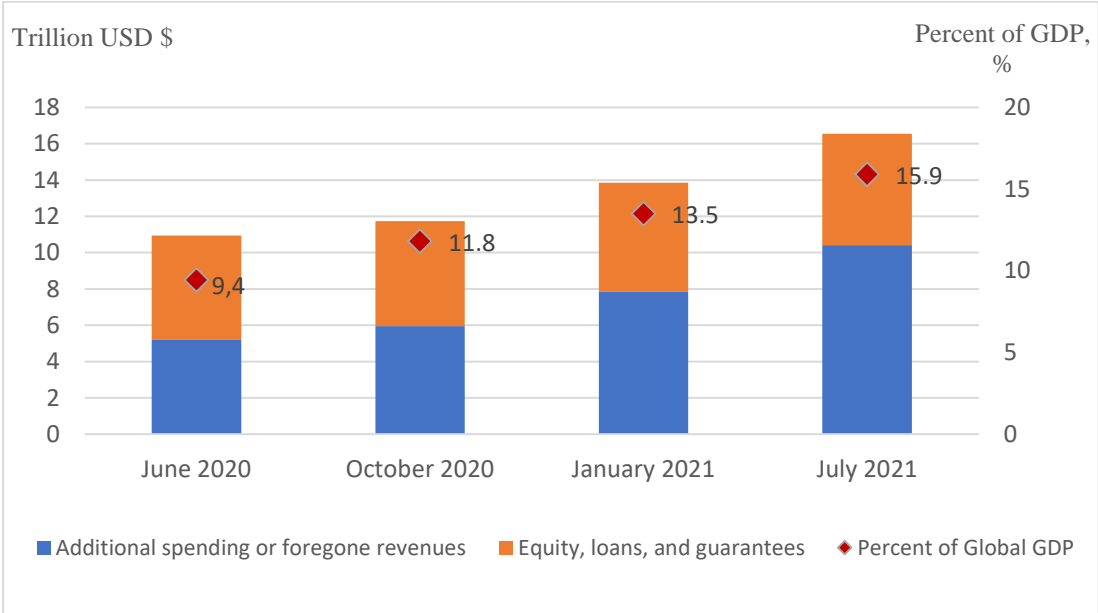
Source: Database of Fiscal Policies Responses to COVID-19,

< https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>

Figure 3.1 Global Fiscal Response to the Covid-19 Pandemic, 2020-2021, USD $

The size and duration of financial supports are affected by countries' different phases of the epidemic, macroeconomic conditions and access to financing. While many developed countries (advanced economies - AEs) continue to allocate significant shares from their budgets to financial supports in the post-Covid period in order to control the health crisis and support the economic recovery, the share of financial support measures against the pandemic in developing countries (emerging economies - EMs) remained at a very low level in 2021 (Figure 3.2).

The average share of financial measures (revenue and spending measures except for loans, equity, and guarantees) in developed countries in GDP decreased from 8 percent in 2020 to 6 percent in 2021. All countries have felt the pressure of the Covid-19 crisis in their budgets, however limited fiscal space and weaker health and social protection systems have made economic losses much more costly for developing countries (UNCTAD, 2022). The average share of fiscal measures in GDP, which was already low in developing countries, declined from 3.4 percent in 2020 to 0.5 percent in 2021. (IMF, 2021a).
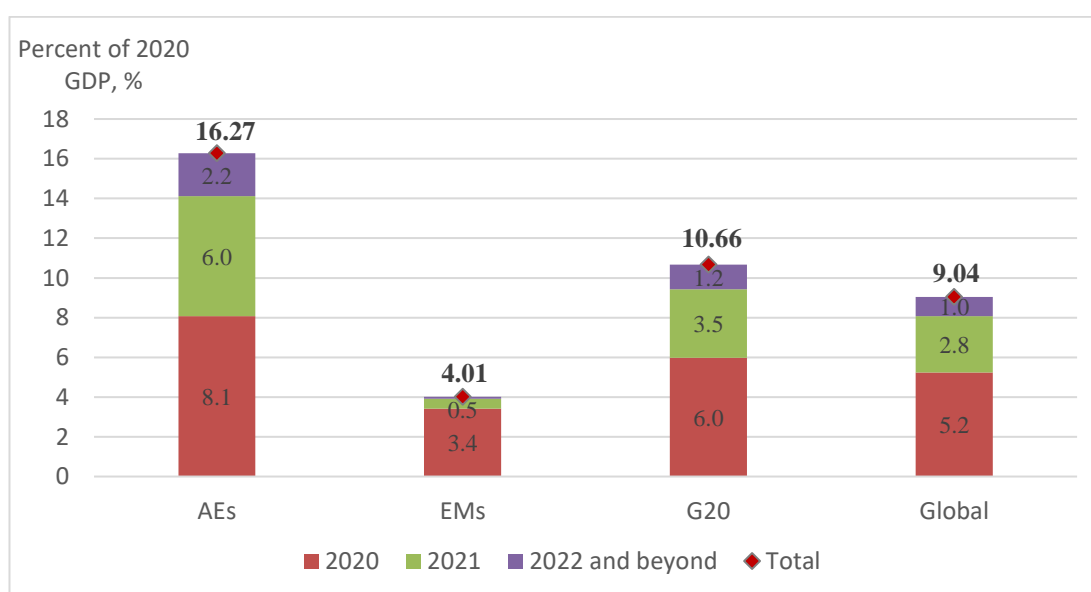
Source: IMF, Fiscal Monitor Database of Country Fiscal Policies in Response to COVID-19, and IMF staff estimates < https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>

Figure 3.2 Fiscal Response to Covid-19 Pandemic for the Period 2020-2022 on the Basis of AEs, EMs and G20, % (Revenue and Spending Measures not Included Loans, Equity, and Guarantees) (Percent of 2020 GDP)

The size and component of the financial supports which aimed to activate health services and keep the economy resistant varied depending on the impact of shocks, low-cost borrowing and pre-crisis financial conditions (IMF, 2021a). While developed countries could take more costly and radical measures (such as longer closures that started in the early period) against crisis, the extent of the measures taken by developing countries is limited by their economic conditions. The fact that developed

economies were affected earlier and harder by the health crisis, that they could provide large monetary incentives to the market and finance larger budget deficits with low interest rates were effective in forming a large part of the global financial response in 2020-2021. Fiscal responses in developing countries have been smaller, largely within budget and due to tighter financing constraints.

Developing countries are faced with the options of investing in long-term development priorities such as infrastructure and structural transformation, while supporting the economy and trying to mitigate the impact of rising food and fuel prices on household incomes. So, it has made it more difficult for developing countries to allocate scarce resources to respond to the Covid-19 crisis and in many of these, worsening debt crises have further constrained the decision to allocate resources in response to the Covid-19 crisis (UNCTAD, 2022).

The effect of expenditures such as cash transfers, unemployment benefits, and wage supports result in immediately higher budget deficit and increase borrowing needs in the short term. The average ratio of these expenditures, which are classified as additional spending and forgone revenue, to GDP is 9.3 percent in developed countries and 3.4 percent in developing countries. The ratio of spending and revenue measures to GDP in Mexico (0.6 percent), Turkey (0.8 percent), Egypt (1.6 percent) India (1.8 percent) and Russia (2.4 percent is below to the average of developing country (3.4 percent) (Figure 3.3A).

Credit supports, equity injections and guarantees provided to support companies in financial difficulties are measures that do not directly affect the budget, but may require additional borrowing. The average ratio of equities, loans and guarantees to GDP is 11 percent in developed countries and 2.5 percent in developing countries. Turkey has been one of the countries that relied most on compensating for the negative effects of the crisis through financial markets. The ratio of the size of the package announced to improve the economic conditions of the companies to GDP differed positively from other developing countries with 13 percent in Turkey. In developed countries, Italy (33 percent), Germany (30.8 percent) and Japan (23.7 percent) allocate a high share of GDP to these measures (Figure 3.3B).

A. Size of Fiscal Support in Emerging Economies (Percent of 2020 GDP)
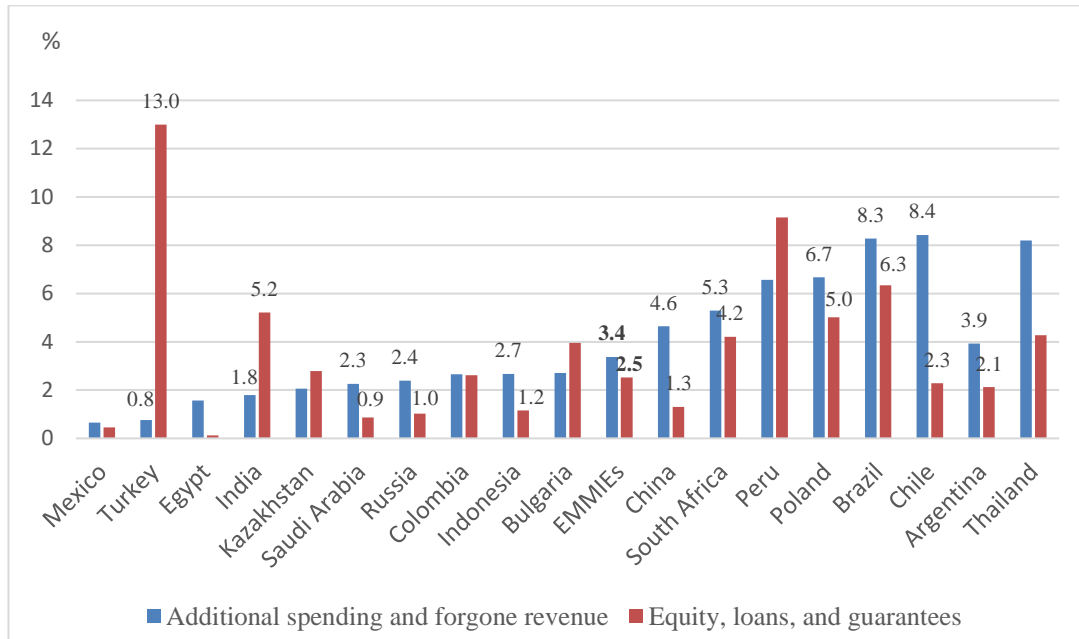
B. Size of Fiscal Support in Advanced Economies (Percent of 2020 GDP)
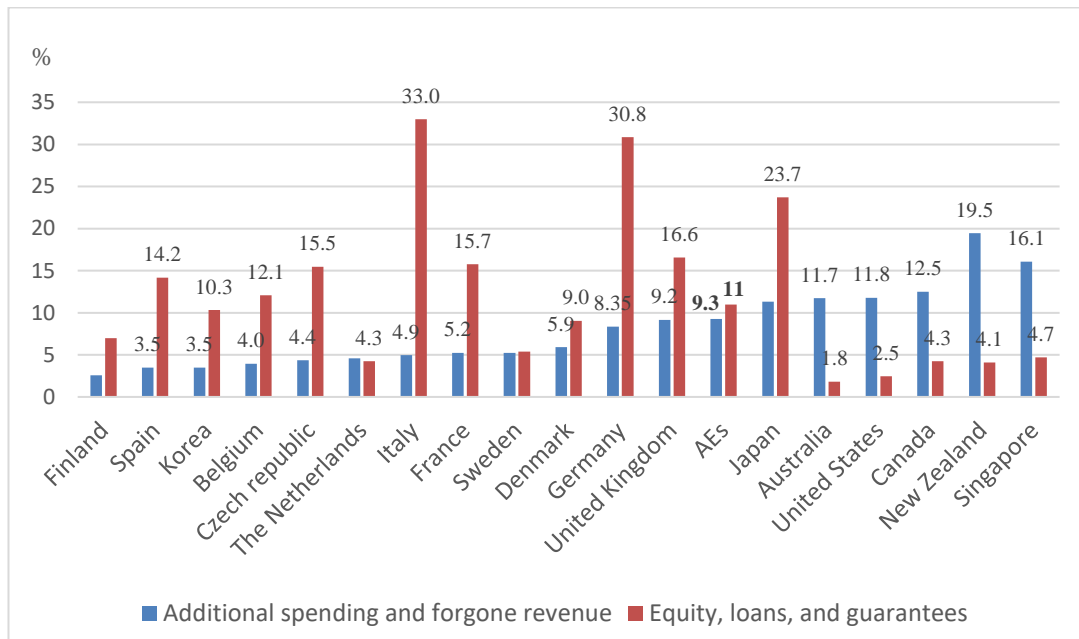
Source: IMF, Fiscal Monitor Database of Country Fiscal Policies in Response to COVID-19, and IMF staff estimates < https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>

Figure 3.3 Government Discretionary Fiscal Response to the Covid-19, 2020

3.2 Government Financing Support Programs

The Covid-19 pandemic started as a health crisis, and then changed into a multi-dimensional crisis with the simultaneous occurrence of supply, demand and financial shocks (Voyvoda and Yeldan, 2020). The first response to the global Covid-19 pandemic was to save lives by ensuring that the health system continues to operate effectively. While policies were designed primarily to respond to the health crisis, steps were taken to improve the economy over time and focused on the long-term effects of the pandemic.

After the global Covid-19 pandemic under control and the gradual end of shutdowns, broad-based, coordinated fiscal stimulus has become a more effective tool to stimulate the economic recovery (IMF, April 2020:13). Fiscal measures aimed at stimulating the economy, preventing or reversing the economic recession by increasing employment and spending focused on reducing the negative effects of the Covid-19 on demand, supply and market confidence.

3.2.1 Support measures for households

Many countries have provided emergency lifeline measures that directly support the poor, as well as mitigate the magnitude of the slowdown in growth. Thus, many significant changes have been made to social assistance programs to support households whose cash flow is disrupted and at risk of poverty, including expansion in the size, eligibility or duration of unemployment benefits, sickness, family and child care, and cash transfer benefits.

Globally, more than 1.7 billion people have received additional benefits transfers in many different forms (IMF, 2020b). Transfers for recipients represented one-third of monthly GDP per capita, on average nearly double the pre-crisis levels (Gentilini et al., 2020). Governments have made additional spending on social protection and labor market measures, largely on social assistance programs, on average about 1 percent of their GDP, compared to 0.4 percent in low-income developing countries (IMF, 2020b).

Cash-Based Transfers

Many countries have applied to multiple cash transfer and income assistance schemes to provide income support to households. These programs have been newly designed to meet the economic needs arising from the pandemic or have been revised to maximize the speed, coverage, and efficiency of existing. Extending means-tested, new targeted transfers to specific groups, new universal transfers and additional direct help with expenses are announced by countries to support the livelihoods.

Many emerging and developed economies (Belgium, Czech Republic, France, Germany, Hungary, Turkey, etc.) have provided targeted transfer to those at risk of poverty in crisis, some of them have extended means-tested to support the incomes of those exposed to deteriorating earnings prospects. Japan, Korea and United States have adopted new universal transfers[5] (one-off or repeated a few times over short run) as a supplement to their existing social benefit systems. Most countries have provided additional direct assistance to those unable to afford their expenses.

Unemployment benefits

Facing the risk of a severe recession, many governments improve the accessibility or amounts of payment of unemployment insurance which is benefited from standard employment or unemployment assistance benefits which included non-standard employment (temporary, part time or self-employment, etc.) (OECD, 2020b:67). Australia, United States, Belgium, Canada, France, Slovenia, Spain, Switzerland, etc. expanded access to unemployment insurance benefits to include those who did not previously meet these requirements, by reducing or eliminating the minimum requirements for unemployment benefits. Some countries extended the benefit durations of unemployment benefits payments such as Denmark, France, Germany, Greece, Italy, Portugal, United States, Switzerland, Spain. Also the benefit level was increased temporarily in Australia, Austria, Belgium, Sweden, United Kingdom, United States.

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[5] The purpose of universal transfers is to provide temporary support to households facing negative income shocks to partially cover basic expenses such as food, electricity bills, mortgage, rent, health bills and transportation costs.

3.2.2 Support measures for businesses

Employment Measures

Many countries have benefited from job retention programs as one of the main policy tools to contain the employment and social impacts of the Covid-19 crisis (OECD,2021:134). These programs aim to protect jobs and support the incomes of workers whose working hours are reduced. They can take the form of short-time work (STW) benefits, which directly subsidize hours not worked, or they can take the form of wage subsidies (WS), which subsidize hours worked but can also be used to supplement employee earnings with reduced hours worked (OECD, 2020c:2).

In a number of countries, including Austria, Germany, Belgium, France, Italy, Japan, Netherlands, Spain, Switzerland, Turkey, Denmark, Ireland, Sweden, the United States had the STW allowance that existed already before the crisis. These programs are either in *general or unrestricted* form, which does not significantly limit the reduction in working time, or in *work-sharing* form, which allows only partial reductions. Also, most new STW programs were implemented during the crisis. Denmark, Greece, Latvia, Slovenia, Turkey and United Kingdom introduced in response to the crisis take the form of furlough schemes that only subsidize jobs whose hours are temporarily reduced to zero.

A number of countries (Australia, Canada, Colombia, Estonia, Ireland, New Zealand) have introduced temporary WS in response to the Covid-19 crisis which the size of the actual subsidy only depends on the wage bill. In some country like Canada and the Netherlands introduced mixed wage subsidies that do not just depend on the previous wage, but also the reduction in business activity.

Liquidity Support (Loans, Equity Injections and Guarantees)

Many workers and companies around the world have faced the danger of loss of income, unemployment and closure due to liquidity problems. In order to relieve the economy after the pandemic, countries developed a series of support programs to provide emergency financing to businesses, considering the difficulties in cash inflows and outflows.

Governments have developed a number of programs which aim at easing access to finance with different design features that seek to provide forms of capital to corporations and small and medium enterprises. Measures have been implemented, such as providing financial support to small firms through access to loans or grants, reducing liquidity pressure by allowing deferral of social security contributions and tax payments, especially for small firms/entrepreneurs operating in the most affected sectors.

3.3 Economic Measures for Turkey

Comprehensive measures in the field of monetary and fiscal policy have been implemented in Turkey to limit the economic and social strains caused by the Covid-19 pandemic. Following the detection of the first case on March 10, 2020, the Government started to take measures across the country to gradually prevent the spread of the virus in the society and reduce its economic effects. Fiscal measures are aimed, on the one hand, to ensure minimum living conditions, especially for low-income households, through direct income supports and transfers, and on the other hand, to protect employment and production potential by supporting the balance sheet of companies with impaired cash flow.

The first package of 100 billion Turkish Liras (TL) of measures to reduce the economic and social fallout from the Covid-19 pandemic was announced on March 18, 2020[6]. The "Economic Stability Shield Package" aimed to support low-income households, workers and firms with impaired cash flow includes fiscal measures including tax delays, financial measures to facilitate financial access, social measures to ensure continuity in employment and protect disadvantaged groups (CBRT,2020). In this context, flexible and remote working models were encouraged, the coverage of the short-time working allowance was increased, support payments were made to households, and the credit opportunities of firms (interest reductions, tax deferrals) were expanded. The measures taken to alleviate the adversary effects of the Covid-19 pandemics on the economy are examined in this section.

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[6] In the official statements made on April 27 2020, it was stated that the amount of the support package reached 200 billion TL. <https://www.ntv.com.tr/ekonomi/bakan-albayrak-corona-virus-icin-atilan-adimlar-200-milyar-tlye-ulasti>

3.3.1 Support measures for household

The scope and size of social assistance has been increased in order to compensate for the losses in household incomes due to the pandemic. Households that receive regular assistance and do not receive regular assistance but are in need periodically were supported through the Pandemic Social Support Program and the National Solidarity Campaign (MoFLSS, 2020). The total amount of aid and support provided to households within the scope of The Economic Stability Shield Package exceeded 44 billion TL as of December 2021. (ERP, 2021:4).

Social Assistance Programs

The scope and size of social assistance programs have increased in order to protect low-income families and reduce the economic problems of family members, during the Covid-19 economic crisis. The amount of central social assistance has been increased[7], and the households that did not benefit from social assistance programs before the Covid-19 period have been provided with the opportunity to benefit from various social assistance programs against the risk of temporary poverty (MoFLSS:2020).

As a result of the measures taken regarding social assistance during the pandemic period, the number of households benefiting from social assistance and the size of social assistance budget increased in 2020 (Figure 3.4). The number of households receiving social assistance increased from 3.2 million in 2019 to 6.6 million in 2020 and the total size of social assistance increased from 55 billion TL (22.6 billion TL, at 2009 prices) in 2019 to 69 billion TL (24.7 billion TL, at 2009 prices) in 2020. The share of social assistance in GDP increased from 1.27 percent in 2019 to 1.37 percent in 2020. The share of social assistance in GDP reached the highest level in 2009 as of 1.43 percent.

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[7] There has been an increase in the amount of social assistance programs in the 2nd quarter of 2020. The monthly amount of the Aid Program for the Needy Soldier's Child is from 100 TL to 150 TL, the monthly amount of the Regular Cash Assistance Program for Military Families in Need is from 275 TL to 400 TL, the monthly amount of Regular Cash Assistance Program for Widowed Women from 275 TL to 325 TL, Orphan Assistance monthly amount increased from 100 TL to 150 TL. Besides, conditional transfers for health and education are increased at varied rates. (MoFLSS, 2020:210).
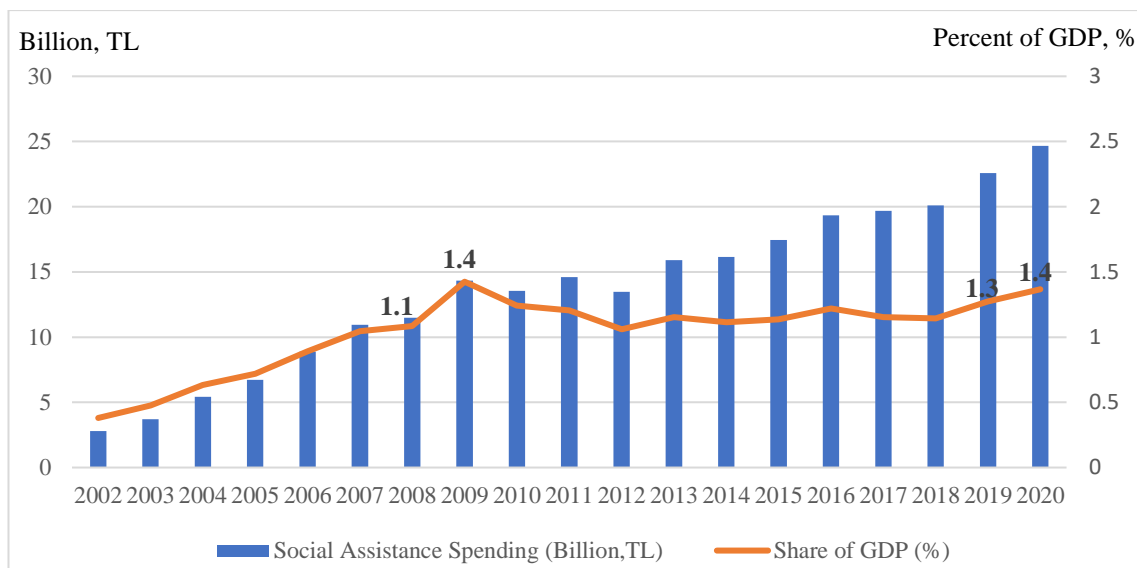
Note: It is included all social assistance expenditure by public institution.

Source: MoFSS and author's calculation

Figure 3.4 Social Assistance Spending and Share in GDP, Turkey (2002-2020 Period, Real Prices at 2009)

Pandemic Social Support Program

Households that were in temporay need due to the Kovid-19 pandemic and were considered to be unable to meet their basic needs, were provided with an aid of 1,000 TL through the Pandemic Social Support Program.

In the first phase of the program, households receiving regular and periodic social assistance were given 1000 TL per household as of April 1, 2020. Within the scope of Phase I, a total of 2,122,483,000 TL in cash aid was provided to 2,122,483 households.

The scope of those who are eligible to receive assistance in the second phase has been expanded[8]. Thus, 2,053,859 households received 1,000 TL in cash. In the last phase, the applications of those who had not received payment within the scope of the Program before and who became needy due to the epidemic were evaluated, and 1000 TL per household.was paid to 1,949,785 households.

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[8] Households that have benefited from periodic assistance in the recent year, households whose health premiums are covered by the state, and households that receive home care pension were chosen.

National Solidarity Campaign (Biz Bize Yeteriz Kampanyası)

"We are enough for us Turkey" National Solidarity Campaign collected 2,078,252,487 TL through donations. This donation was used as an additional resource and delivered to people in need in 2 components. In the first phase, cash in the amount of 1000 TL was given to the households that were considered to be the most disadvantaged group among the households[9] receiving regular assistance. Within the scope of the first component, 133.572.000 TL of cash transfer was provided to 133,572 households.

Cash support of 1000 TL per household was provided to 1,919,710 households that were determined to be in need among the applications received in the 3rd phase of the Epidemic Social Support Program in the 2nd phase of the We Are Enough for Us campaign as of 10.12.2020. Thus, the total amount of aid and support provided to households through the Epidemic Social Support Program and We Are Enough Aid Campaign exceeded 6 billion TL.

3.3.2 Support measures for firms

The closure measures taken for some sectors to prevent the spread of the pandemic and the quarantine practices throughout the country adversely affected the activities of service sectors such as transportation, accommodation, tourism and education (ERP, 2020:21). Fiscal measures such as tax deferrals and tax rate reductions have been taken for the sectors most affected by the Covid-19 crisis.

The slowdown in economic activities due to the closures and supply chain disruptions during the Covid-19 pandemic made it difficult for the real sector to maintain production and employment short-time working allowance and cash wage support were implemented to reduce the effects of the Covid-19 outbreak on the labor market and to protect employment. In addition to the normalization premium support for workplaces returning to normal work, a series of measures were announced to facilitate companies' access to finance, improve liquidity flow and support employment.

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[9] Households benefiting from the Assistance Program for Widowed Women, Orphan Assistance Program, Assistance Program for Military Families in Need, Needy Soldier Child Assistance Program were entitled to benefit from this campaign.

Short Time Working Allowance

Income support was provided to the insured for the period they did not work, provided that the activity in the workplace was completely or partially stopped for at least four weeks within the scope of the short-time working allowance application. Necessary conditions for entitlement to the allowance have been stretched, allowing more employers and workers to benefit.[10] The period of benefiting from the short-time working allowance is limited to three months. In this period, it was also aimed to prevent layoffs by introducing termination restrictions.

Table 3.2 Short-Time Working Allowance's Beneficiaries and Amounts, 2020-2021

	2020		**2021**	
Months	**Beneficiaries***	**Allowance***	**Beneficiaries**	**Allowance**
January	24,847	23,210	1,401,567	2,191,200
February	17,862	12,096	1,319,490	2,114,750
March	96,636	32,232	1,158,123	1,777,670
April	3,243,126	5,100,339	1,086,830	1,594,803
May	3,282,817	5,560,422	1,314,311	2,036,195
June	2,486,854	3,375,844	991,466	1,482,417
July	1,774,865	2,640,433	3,786	4,895
August	1,302,755	2,042,091	4,447	4,718
September	1,051,710	1,616,172	3,018	2,452
October	967,563	1,491,834	5,250	3,374
November	1,015,981	1,534,725	4,755	2,600
December	1,386,424	2,135,956	5,694	2,426
Total		25,565,354		11,217,500

Source: İŞKUR (2022)

*Beneficiaries represent the number of payments.

**STW allowance does not include general health insurance premiums, stamp duty and transaction expenses paid on behalf of individuals.

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[10] In the last 3 years, the 600-day premium payment requirement has been reduced to 450 days. The condition of being subject to a service contract for the last 120 days before the start of short-time work was reduced to 60 days.

The amount of short-time working allowance has been determined as 60 percent of the insured's average daily gross earnings, considering the earnings of the insured for the last 12 months. The amount of short-time working allowance calculated in this way cannot exceed 150 percent of the gross amount of the monthly minimum wage.[11] The short-time working allowance was started in April, and the highest payment was in May 2020 (Table 3.2).

Cash Wage Support

Cash wage support was applied to those who were taken unpaid leave and lost their jobs due to the epidemic in order to reduce the effects of the Covid-19 pandemic on economic and social life. Cash wage support was provided to workers who were taken unpaid leave and could not benefit from the short-time working allowance or were not entitled to unemployment benefits when layoff.

Provided that they work within the scope of unemployment insurance and do not receive an old-age pension, cash wage support was implemented for those who were taken on unpaid leave in the period of 17 April 2020 and did not benefit from the short-time working allowance or whose employment contract was terminated as of March 15 and could not benefit from the unemployment benefit. The employer has been given the right to leave the worker completely or partially on unpaid leave from 17.04.2020 to 30.06.2021[12].

Each person entitled to cash wage support was paid 39.24 TL per day for 2020, 47.70 TL per day for January, February and March 2021, 50 TL per day for April, 2021 and beyond, during the period of unemployment. In 2020, 7.2 billion TL was paid to 2.3 million employees within the scope of the cash wage support applied to those who were taken unpaid leave or lost their jobs due to the Covid-19 pandemic. From April

[11] The gross short-time working allowance that can be paid to a minimum wage worker for 2020 at a workplace that has temporarily stopped its activities is 1.765,80 TL, which is 60 percent of the minimum wage. Since the wage that can be paid within the scope of the short-time working allowance can be 150 percent of the minimum wage, the highest short-time employment allowance (2,943.00 x 1.5) that can be paid for 2020 is 4,414,50 TL.

[12] The Law No. 7244, which entered into force as of 17.04.2020, the employer was given the right to leave the worker completely or partially on unpaid leave for three months; this period has been extended by one or two months each time by the decision of the President. With the latest Presidential decree dated 30.04.2021 and numbered 3930, an extension decision was made until 30.06.2021.

2020 to February 2022, 3.1 million people were entitled to receive cash wage support and 13.9 billion TL was paid.

Table 3.3 Cash Wage Support's Beneficiaries and Amounts, 2020-2021

Months	2020		2021	
	Beneficiaries*	**Allowance****	**Beneficiaries**	**Allowance**
January			859,894	1,057,550
February			752,431	999,308
March			761,552	993,276
April	880,088	441,907	862,895	1,136,085
May	1,204,110	1,267,828	996,727	1,352,952
June	1,235,859	1,130,612	771,374	1,109,718
July	812,643	784,494	54,464	88,407
August	736,815	788,910	6,938	14,080
September	669,167	708,565	695	1,772
October	604,254	629,937	505	1,293
November	698,753	726,094	193	352
December	701,411	747,316	200	878
Total		7,225,663		6,755,671

Source: İŞKUR (2022)

*Beneficiaries represent the number of payments.

**STW allowance does not include general health insurance premiums, stamp duty and transaction expenses paid on behalf of individuals.

Normalization Premium Support

The return of companies to the normal working system from short work was encouraged with the support of normalization. The workplace, which benefited from the short-time working allowance or cash wage support during the Covid-19 process,

benefited from the normalization premium support for 6 months (not exceeding 30 June 2021) in case it returns to normal working time.[13]

Employers were provided with support in the amount of all social security premiums to be calculated over lower limit of the earnings subject to premium of these insured for a maximum period of six months following the end of the short-time working/cash wage support. Premium support amount is 1,103.63 TL per month if the average number of days for which the insured receives short-time working allowance or cash wage support is 30 days (KEP, 2021:14)[14] Normalization premium support started to be implemented on August 1, 2020, and until October 2020, approximately 950 million TL of normalization support was provided to approximately 159 thousand workplaces.

Equity, Loans and Guarantees

In addition to fiscal policies, macro-prudential measures have been announced during the pandemic period by the Ministry of Treasury and Finance, the Central Bank of the Republic of Türkiye (CBRT), Banking Regulation and Supervision Agency (BRSA), Export Credit Bank of Türkiye (Türk Eximbank), Small and Medium Enterprises Development Organization of Türkiye (KOSGEB) and other ministries in order to ensure that the cash flow of the companies continues uninterruptedly and in a healthy manner.

CBRT provided Turkish lira liquidity to banks through repo auctions with a maturity of 91 days, and with quantity auctions method at an interest rate 150 basis points lower than the CBRT's policy rate in order to secure uninterrupted credit flow to the corporate sector. Cash flows of exporting companies were supported by rediscount credit arrangements, and companies that exported goods and services were provided with rediscount credits. A total limit of 60 billion Turkish lira was determined for loans which were extended by Türk Eximbank, public banks and other banks. The maximum loan amounts on a firm basis are 25 million TL for SMEs and 50 million TL for other firms. The loans are offered with a maturity of 12 months, a grace period of 3 months

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[13] The normalization premium support period has been increased from 31 December 2020 to 30 June 2021, and the premium support application has been increased from 3 months to 6 months thanks to the Presidential Decision numbered 3246.

[14] https://www.dunya.com/kose-yazisi/normallesme-sigorta-prim-destegi/617893

and an interest rate of 9.5 percent, provided that the employment level of the company as of the end of March 2020 is maintained throughout the loan term.

Within the scope of the "Economic Stability Shield Loan" and the "Check Payment Support Loan" programs with the Treasury-backed KGF guarantee, on condition that the number of registered employees is preserved, 5-50 million TL and 1-10 million TL loans respectively have been started to be given to firms that have difficulty in finding sufficient collateral. The loans for the two programs are 3 months principal and interest-free, with a total maturity of 12 months and an annual interest rate of 9.5 percent. The balance amount of the guarantees provided by KGF was increased from 250 billion TL to 500 billion TL. KGF guaranteed cash loan balance reached TL 342.7 billion as of September 2020 (ERP,2021: 29).

The BRSA gave flexibility to loan repayments in order to provide flexibility to companies whose income and cash flow will deteriorate during the pandemic period. The period for transferring overdue loans to non-performing loans has been increased from 90 days to 180 days. The application covering all individual and commercial loans has been extended until the end of June 2021.

KOSGEB increased the investment and business loan upper limit from 200 thousand TL to 3 million TL per SME in order to provide financial support under favorable conditions, and the maturity of the loans was extended from 48 months to 60 months, tax and social security premium payments were postponed. It has been decided that all companies affected by the pandemic will be supported, on condition that the number of registered employees is preserved, by public banks up to 100 million TL (in varying amounts depending on the company's annual turnover) with a 6-month grace period, 36-month maturity and 7.5 percent interest rate.

All these measures aim to meet the liquidity needs and ensure the continuity of employment by facilitating access to finance and postponing financial obligations in the real sector, especially in the sectors that are primarily affected by the epidemic. Supporting company balance sheets is considered important in terms of not permanently damaging the production potential of the economy, not deteriorating the households' decisions to participate in the workforce, and ensuring the continuity of production and employment.

CHAPTER 4

LITERATURE REVIEW

The economic crisis triggered by the Covid-19 health crisis caused the deepest GDP contraction worldwide since the 2008-2009 global crisis (IMF,2021). The slowdown in growth has created the risk of partially reversing the gains made in previous years in poverty and income distribution (Gentilini et al., 2020). Many governments have implemented cash transfer and income support measures to support households and prevent the crisis from spreading to the financial sector, but many of these programs were not deemed sufficient to fully compensate for the loss of income (IBRD, 2022b).

Since outbreak of Covid-19 crisis, it has been considered important to examine the impact of the pandemic on income distribution and poverty, and to analyze the impact of the measures on household incomes. The lack of timely available data limits estimating the scale and direction of changes in income distribution, which in turn limits empirical studies in the rapidly evolving literature to analyze the effects of the crisis on income distribution and poverty measures. To overcome the lack of data, various micro-simulation models have been frequently used in these studies, and general equilibrium models have been utiled as well as dynamic and static micro-simulation models.

Almeida et al. (2021) estimated the impact of the Covid-19 crisis on inequality and poverty indicators and the alleviating effect of discretionary fiscal policy measures for European Union (EU) Member States. The study used EUROMOD for microsimulation to simulate and compare households' income, inequality and poverty indexes. The results showed that the COVID-19 pandemic is likely to significantly impact the disposable income of households in the EU, but due to policy intervention, the impact of the crisis is expected to be similar to that experienced during the 2008–2009 financial crisis. Discretionary fiscal policy measures reduced the magnitude of

the loss in equivalent disposable income from an average of 9.3 percent to 4.3 percent. Despite policy measures, it is stated that the greatest impact of the COVID-19 pandemic on equivalent disposable income is expected to be in countries such as Bulgaria, Cyprus, Czechia, Spain, Croatia, Hungary, Lithuania and Poland.

Bruckmeier et al. (2021) estimated the impact of the Covid-19 pandemic shock and policy interventions for Germany using the IAB microsimulation model, which contains a detailed implementation of the Germany's tax benefit system. The study pointed out that the magnitude of the negative impact of the Covid-19 shock on Germany's labor demand could have significant consequences on income distribution from the COVID-19 pandemic as it reaches levels not seen since the Second World War. The results show that in 2020, all working households suffer loss of income, with the significant decline in production of nearly all sectors translated into a noticeable decline in both labor demand and gross labor income. However, thanks to the tax benefit system and the discretionary non-employment policy, the incomes of the first two decile groups have increased, the middle-income group have remained almost not affected, only those in the upper decile groups still lose income.

Han et al. (2020) generated monthly estimates of income distribution and poverty parameters for the USA for the January-June 2020 period using the Basic Monthly Current Population Survey (CPS), which is high frequency data with a lag only few weeks. In the study without a country-specific micro-simulation model, the incomes of those who is eligible for government programs were estimated under the scenario for "the COVID-19 pandemic without fiscal policy". The study provides the first evidence that government subsidies (extended unemployment insurance and cash transfers) reduce poverty by more than 2.5 percentage points, while the improvement in income distribution is more limited.

Tekgüç et al. (2022) analyzed the macroeconomic effects of Covid-19 on the Turkish economy with the general equilibrium model using the SILC 2018 data, which references the income of 2017. Tekgüç et al. (2020) observed that, accommodation and food services (55.6%), tourism (51.5%) and construction (48.7%), air transport (47.7%), and iron and steel (40.5%) sectors would be the five sectors that could have experienced the highest contraction in real production compared to 2019. Contraction

in real production is expected to be reflected in employment and wage incomes. Under an optimistic scenario, the relative poverty rate (50% median income as threshold) increased from 13.5 percent to 20 percent, and this increase in the relative poverty rate was limited to 18 percent with government policies. The discretionary fiscal policy measures also reduced the Gini coefficient by one percent at best.

Bayar et al. (2022) showed that Covid-19 pandemic caused a serious deterioration in income distribution, and the Gini coefficient increased to 0.553 in the absence of short-time working allowance with the microeconomic approach, using SILC 2017, which took 2016 revenues as a reference. In addition, the short-time working allowance alleviates the deterioration in income inequality, bringing the level of the Gini coefficient from 0.553 to 0.465, the poverty headcount ratio also decreased from 29.9 percent to 21.3 percent in the presence of short-time working allowance.

Voyvoda and Yeldan (2020) using the structural framework of the Computable General Balance (CGE) model based on the 2012 input-output table, estimated a 26.7 percent loss in GDP and 22.8 percent in total employment for Turkey in 2020. Taymaz (2020) used the most up-to-date 2012 input-output table with Leontief assumption and different scenarios regarding employment and income conditions. Taymaz (2020) predicted between 19 percent and 29 percent decrease in non-agricultural labor demand and an additional 4.2-6.5 million unemployment in addition to the current unemployment. Taymaz (2020) also estimated that 4 percent of GDP would be sufficient to eliminate half of negative effects induced by Covid-19 pandemic in employment and income. In these studies, rather than investigating the effect of the pandemic on income distribution and poverty, it focused on the macroeconomic effects such as growth and unemployment.

Lusting et al. (2020) utilized the CEQ model to analyze the effects of lockdown policies and expanded social transfer spending on poverty and income distribution in Mexico, Brazil, Argentina and Colombia. Under the assumption that the income of those working in "non-essential" sectors is at risk, the selection of households that actually loss income was made randomly from the set of households with at-risk income. They also assessed the extent which governments policies compensate the negative effects of the Covid-19 pandemic, using the most recent official survey data

for each country (exc. Mexico). Contrary to previous expectations, the worst effects of the crisis were observed not on the poorest, but on the middle-income. The offsetting effect of expanded social assistance is much greater in Brazil and Argentina than in Colombia and zero in Mexico due to implementing no additional social assistance. Lusting et al. (2020) stated that in all countries the increase in poverty triggered by the lockdown is similar for male and female-headed households, but the compensatory effect of extended social assistance is higher in female-headed households than in male-headed households.

World Bank (2022a) estimated effects of Covid-19 on within-country inequality for a sample of 34 emerging market and developing economies (EMDEs) using simulations based on country specific sectoral growth projections and high frequency phone surveys data undertaken in 2020. According to the study, the Covid-19 pandemic has increased global income inequality by significantly increasing inequality between countries and increasing inequality within countries to some extent. The results show that the Covid-19 pandemic increased within-country inequality by 0.3 points (this amount of change is equivalent to the annual average decline in within-country inequality in these EMDEs over the previous two decades) and the extreme poverty rate by an average of 0.63 percentage points. However, there was a reduction in income inequality, with one-tenth of the EMDEs in the sample with output growth resilient and a smaller proportion of poorer households reporting income less income loss than richer households.

In the literature, there is a consensus that the Covid-19 crisis has the potential to reduce household incomes disproportionately among different income groups and exacerbate poverty, whereas the deterioration in these indicators can be relatively compensated with direct transfers. However, when the impact of past financial crises and epidemics on income distribution is evaluated, it is observed that the changes in income inequality around adverse events are smaller than in non-crisis periods (WB,2022b). This shows us that changes in income inequality are largely driven by more persistent structural factors than macroeconomic cycles or pandemics.

CHAPTER 5

ANALYZING THE EFFECT OF GOVERNMENT TRANSFERS ON
POVERTY AND INCOME DISTRIBUTION

The aim of the thesis is to estimate the contribution of direct transfers, which was increased in comprehensiveness during the Covid-19 pandemic, and the income support packages implemented during the pandemic period (2020)[15], in reducing poverty and improving income distribution.

In the analysis of the impact of direct transfers and income supports on poverty and income distribution during the pandemic period, has been compared with 2020 by accepting 2019 as a benchmark. Thus, the contribution of direct transfers, whose comprehensiveness was increased during the pandemic period, and policies such as short-time working allowance and cash wage support, which were actively applied during the pandemic period to poverty and income distribution is analyzed.

5.1 Methodology and Approach

The analysis of Covid-19 impact on poverty and income distribution in Turkey is based on Commitment to Equity (CEQ) methodology (Lusting, 2018).[16] The individual impact of each transfer, as well as their overall combined impact on poverty and inequality have been analyzed using the CEQ methodology. The CEQ method is based on an accounting approach; it adds transfers to income per household to measure income before and after each intervention.

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[15] In the thesis, the pandemic period corresponds to 2020.

[16] The CEQ is a comprehensive incidence analysis that uses data from household surveys and administrative data to assess the impact of taxes and public transfers on household poverty and inequality. CEQ analysis has been completed in a total of 64 countries. Source: www.commitmentoequity.org accessed January 30, 2022.

The main fiscal incidence analysis equation on which the whole analysis contained in this paper is based on is the following:

$$Y_h = I_h + \sum_i B_i S_{ih}$$

where:

Y_h= Income after transfers for h (household) .

I_h= Income before transfers.

B_i= Transfers received by households (i is the range of transfers as shown on Figure 13)

S_{ih}= Share of transfers i received by unit household.

CEQ is used to estimate the distributional impact of a system of taxes, cash transfers, and in-kind services using microdata, as well as for analysis to better understand the opportunities and risks of policy change in the existing public finance system.There are different micro-simulation models referenced in the literature to find answers to the questions of what will be the impact of the transfer and tax system reforms on household incomes and expenditures and government income or expenditures.[17] In the study, the CEQ model was preferred, and income definitions for policy simulations were introduced to the model as a "manually".[18] Assessing the impact of social transfer policy on poverty and income inequality, the CEQ methodology has been adapted to include direct transfers and simulate the implementation of employment protection and income suppoting policies in Turkey.

The income concepts and the analysis equation of the CEQ model adapted for the thesis to examine the effects of direct transfers, are shown are shown in Figure 5.1.

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[17] The CEQ is not the only model for applying financial incidence analysis and micro simulation. The other models used for this purpose are LATAX, and EUROMOD.

[18] CEQ, Handbook, 31

Starting from market income with simulation[19], each new income concept is constructed by adding another element of transfer system to the previous one.
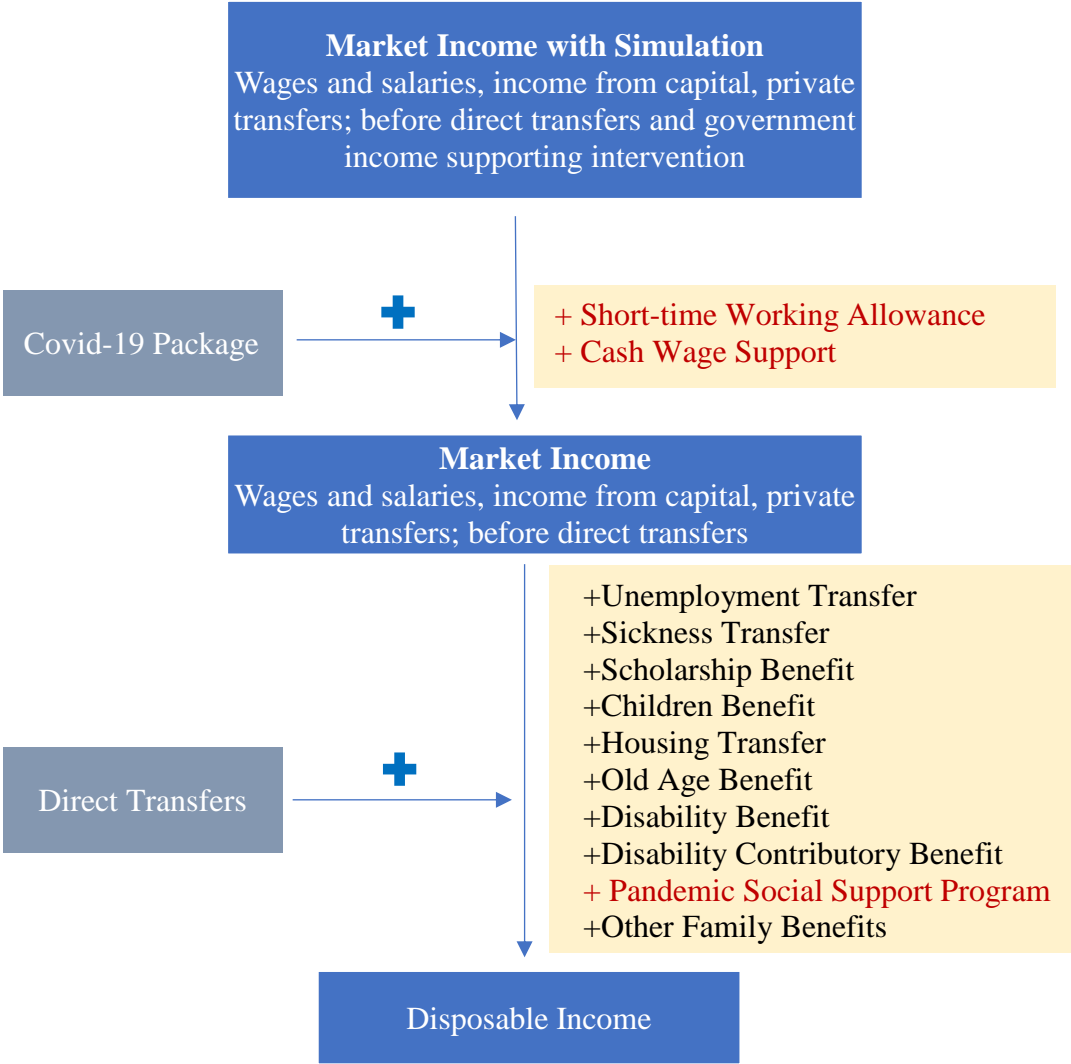
Source: Adapted from Lusting (2018)

Note: Transfers marked in red are included in the analysis for the pandemic period only. While examining the contribution of direct transfers to poverty and income distribution before the pandemic (2019), the analysis started from Market income.

Figure 5.1: Adapted Income Concepts Under The CEQ Analysis

Market income was simulated under the assumption that the income-supporting measure package was not implemented in order to uncover the effect of the policies

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[19] The analysis starts with the market income for 2019, and the market income with simulation for 2020.

implemented during the Covid period. By adding Covid-19 package to the simulated market income, the market income is constructed. Covid-19 packages include short-time working allowance and cash wage support. Although the pandemic social support program is one of the cash transfers applied during the pandemic period, it is not included in the Covid-19 package because it does not a component of the wages or salaries of the employees.

Market Income is defined an income received by each household before transfers. Market income includes wages and salaries, income from capital (eg rents, profits and dividends), private transfers (eg remittances) and other income, while transfers are not included. *Disposable Income* adds direct cash transfers to market income. Direct cash transfers include non-contributory (scholarship benefit, children benefit, housing transfer, pandemic social support transfer, other family benefits, old age benefit, disability benefit) and contributory benefits (unemployment transfer, sickness transfer disability transfers). Since the pandemic social support program was included in the other family benefits category in the SILC survey[20], it was added to the market income after being separated from the family benefits category under the conditions of benefit, scope and size.[21]

The key strength of the CEQ methodology is to provide a framework for analyzing not only the individual impact of different taxes and transfers[22], but also their overall combined impact on poverty and inequality. However, CEQ have certain limitations since the only considers the first-order effects (also known as "partial equilibrium analysis"), it does not model behavioral responses, externalities and spillover effects.[23]

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[20] The size of "other social assistance received by the household" in SILC is classified as "family assistance" in the study. The size of family assistance jumped in 2020 compared to the 2019. In the interview with TurkStat, it was informed that the data of the pandemic social support program are included in this classification.

[21] The part after the separation of pandemic social support program transfers from family benefits is classified as "other family benefits" in the study.

[22] In the study, the CEQ model is used only to examine the effect of transfers.

[23] CEQ Handbook, 2018:31.

5.2 Data and Empirical Approach

Data has been obtained from the Survey of Income and Living Conditions (SILC) is an income-based survey published by TurkStat to monitor households'living standards on a yearly basis. The survey is an important source for compiling data comparable to the EU Countries about income distribution, relative poverty based on income, living conditions and social exclusion.

TurkStat has been carrying out SILC periodically every year since 2006 in Turkey in order to reveal the income distribution between households and individuals, to measure people's living conditions and poverty in terms of income, and to determine the poverty profile. The sample size of the survey, which was gradually increased between 2011 and 2014 to produce estimates at NUTS 2 level (26 Regions), covers 25,706 households in 2020 and 28,000 households in 2021.

The process of preparing the micro data set for analysis within the framework of the empirical approach of the CEQ model consists of 3 stages in which assesing the covarage of the study, measuring the transfers in the survey, and constructing the poverty and inequality indicators.

The first step of the approach is to examine the questionnaire form and evaluate what information is collected from the households regarding the transfers. This stage determines the coverage of the study. Transfers that are includes in the study when direct transfers are classified based on the questionnaire are as follows: unemployment transfer, housing benefit, sickness transfer, scholarship benefit, old age transfer, disability benefit, disability contributory transfer, children benefit, family transfer and income support transfers (short-time working allowance, cash wage support) which are simulated based on the official data released from government.

The second step in the approach is to measure the size of these transfer for the households in the SILC. Using the responses of the SILC survey, the extent to which each household has benefited from the transfers is calculated. The fact that the classification of social assistance programs in Turkey is different from the European system is reflected in the questionnaire of SILC. The grouping of direct transfers and income supports to be used in the study was made based on the survey questions in

SILC. While some transfers have direct questions in the questionnaire, it makes it easier to access information about these transfers, while more complex methods and assumptions are needed for some transfers espicially for the cash transfers implemented for only pandemic period (Appendices A).

One of other difficulties is to find how short-term working allowance and cash wage support should be distributed among the individuals in SILC. MoFLSS declared the total number of individuals and total budget for each income support transfer, but there is no information about who received the payment in SILC questionnaire. Since, the shares of workers affected are different across economic sectors, the number of individuals to be assigned for income support in each sector is determined using a two-stage weighting (Appendices A). First, we compute the occupation shares in each sector based on SILC microdata and then we classify each sector subject to shut down based on the EU Commision Report (2020). So, we assumed that sectors that are highly subject to containment measures and have a high share of workers will benefit more from the application of income support. And then these income supports are distributed randomly among the individuals who meet the legal requirements from the SILC microdata.

In the study, the comparison of the size of the transfer programs obtained based on the SILC survey for 2019 and 2020, and the size of the pandemic income support transfers included in the SILC survey based on official data are shown in the Table 5.1.

Table 5.1 Spending of Direct Transfers and Income Support Programs Based on SILC and Administrative Records

Government Transfers (Direct Transfers and Income Support Programs)	Amount in SILC, Million TL (2019)	Amount in SILC, Million TL (2020)
Unemployment Transfer	9,987	10,321
Sickness Transfer	532	5,702
Children Benefit	3,243	4,192
Family Transfer (Other)	1,613	2,516
Pandemic Support Program*		5,638
Scholarship Benefit	2,707	2,918
Old Age Transfer	4,283	7,450
Disability Benefit	3,832	5,362
Disability Contributory Transfer	5,122	5,526
Housing Benefit	214	296
Short-time Work Allowance*		23,371
Cash Wage Support*		6,479

Source: TurkStat, SILC 2020 and 2021, Author's calculation and <https://www.csgb.gov.tr/haberler/bakan-selcuk-sosyal-koruma-kalkani-kapsaminda-yaptigimiz-yardimlarin-tutari-45-5-milyar-liraya-yaklasti/>

In the last stage, poverty and income distribution indicators to be used for the analysis chapter of the thesis are defined. The poverty headcount ratio is measured as the proportion of individuals whose income per household is below the poverty line. Two poverty lines are considered. As the national poverty line 50 percent and 60 percent of the median equivalised household disposable income is used. Also it is used the lower-middle-income and upper-middle-income-country poverty lines, which are calculated globally by the World Bank and takes the value of $3.20 and $5.50 per-person per-day in 2011 Purchasing Power Parity (PPP), respectively. The poverty headcount ratio is complemented by the poverty gap index showing the average shortfall of the poor from the poverty line. Finally, inequality is measured using the Gini coefficient, with a value between 0 and 1 where zero is perfect equality and one is perfect inequality. Since the Gini is more sensitive to changes in the middle of the distribution, 90/10 ratio and 80/20 ratio are used as complementary measure by monitoring to change in the inequality between top and bottom income groups. These ratios compares the income of the 90th percentile to the income of the 10th percentile and the income of the 80th percentile to the income of the 20th percentile.

5.3 The Impact of Government Transfers on Poverty and Income Distribution Before and During the Covid-19 Period

In this section, the combined and individual incedence of direct transfers and income supports introduced by Government to protect employee and households from the serious economic consequences of the Covid-19 is analyzed. The analysis focuses on the effects of the economic consequences of the pandemic on individuals and the effects of the package on income distribution and poverty indicator by simulating the Market income of individuals before the implementation of the Economic Stability Shield Package.

5.3.1 The Overall Effects of Transfer on Inequality

Income distribution indicators for market income with simulation (based on estimation of indivudual's market income before the implementation of the Economic Stability Shield Package), market income, and disposable income are estimated for 2019 and 2020. Thus, the effect of income supports (short-time working allowance and cash wages) actively applied during the pandemic period and direct transfers, which are already in existence but whose amount and scope have been increased, on income distribution have been uncovered (Table 5.2).

In the scenario when income supports are treated as a separate component of market income, the Gini coefficient of simulated market income is estimated to be 0.421. All government tranfers which inlude income supports and the direct transfers alleviate the deterioration in income inequality and brings the level of the Gini coefficient from 0.421 to 0.401. The Market Income Gini drops from 0.421 to 0.418 once income supports for employees during pandemic are considered. Direct transfers have a considerable equalizing effect, making the Gini coefficient of Disposable Income decrease from 0.418 to 0.401 in 2020.

Turkey achieves a reduction in Gini of about 0.017 with direct transfers, whose scope and size were increased during the pandemic period. The equalization effect rises to 0.020 when income supports are included. Before the pandemic, in 2019 the decrease in Gini with direct transfers are 0.012. If we compare the impact of direct transfers alone with that before pandemic, we can see that income equazing effect has increase

from 0.012 Gini points in 2019 to 0.017 points in 2020. So we can say that, increasing social assistance expenditures in response to pandemic provided additional improvement in income distribution.

Table 5.2 Gini,Theil and the Income Deciles Share Ratio in Terms of Inequality of Income Disribution in Turkey, 2019 and 2020

	Pre COVID-19 Pandemic (2019)		Ongoing COVID-19 Pandemic (2020)		
	Market Income	Disposable Income	Market income with Simulation	Market Income	Disposable Income
Gini	0.422	0.410	0.421	0.418	0.401
Theil	0.357	0.342	0.354	0.348	0.324
90/10	17.6	14.7	17.9	17.8	13.7
80/20	8.9	8.0	9.1	8.96	7.7

Source: Own estimates based on Turkey 2020 and 2021 SILC microdata.

Note: The table shows the inequality ratios for each income concept. Market income with Simulation refers to before government transfers, Market Income refers to after income support transfers in 2020 and Disposable income refers to after direct transfer.

Theil, the 90/10 and 80/20 ratio show a similar downward trend as reduction in Gini coefficient. In the pandemic period, before all transfers, high-income households at the 90th percentile have an income that is 17.9 times higher than low-income households at 10th percentile. The 90/10 ratio drops to 13.7 after all transfers. Moving from market income with simulation to disposable income, the income gap between the poorest at 20th percentile and the richest at 80th percentile (the 80/20 ratio) is estimated to fall from 9.1 times to 7.7.

The increase in the amount of a number of social assistance programs already implemented and the Pandemic Social Support Program, which was launched for the first time during the pandemic period, increased the healing effect of direct transfers on Gini from 2.7% to 4% in 2020. Income supports programs (short-time working allowance and cash wage support) have a slight equalizing effect and these programs are able to increase the rate of reduction in Gini coefficient from 4 to only 4.8% in 2020 (Figure 5.2).

The decrease in the income gap between the richest and the poorest income groups (90/10 ratio and 80/20 ratio) is greater in the pandemic period compared to 2019, with the effect of direct transfers increasing in scope and size and income supports programs. The income gap between the income share held by highest 10% and the lowest 10% decreased by 16.3% in 2019, and by 23% during the pandemic period, with the effect of direct transfers. The decrease in income gap is estimated to increase from 23% to 23.4% for 90/10 ratio and from 14.5% to 15.6% for 80/20 ratio by simulating short-time working allowance and cash wage support to market income.
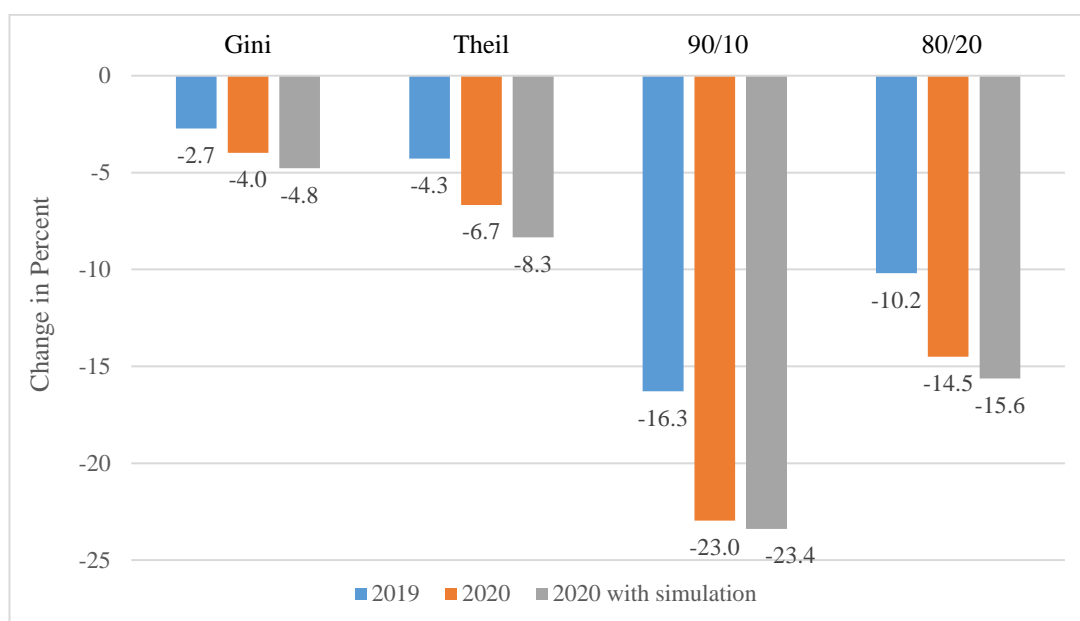
Figure 5.2 Impact of Combined Impact of Transfers in Inequality

5.3.2 The Overall Effects of Direct Transfer on Poverty

The effects of social transfers aimed at protecting low-income and disadvantaged groups and ensuring their continuity in employment on poverty reduction during the pandemic are investigated. Poverty headcount ratio, poverty gap rate and poverty gap squared indicators are based on 50% and 60% of the median income as national poverty line (NPL) and the World Bank's daily expenditure amounts which refer to $3.2 and $5.2 per-person per-day in 2011 Purchasing Power Parity (PPP) for middle-income countries (Table 5.3).

Table 5.3 Povery Headcount Index before and after tranfers in 2019 and 2020

	Pre COVID-19 Pandemic (2019)		Ongoing COVID-19 Pandemic (2020)		
	Market Income	Disposable Income	Market Income with Simulation	Market Income	Disposable Income
Poverty Headcount (%)					
US$3.2 PPP	1.1	0.5	1.3	1.3	0.4
US$5.5 PPP	3.2	1.7	3.6	3.5	1.4
NPL-50%	17.2	15	18.6	17.6	14.4
NPL-60%	24	21.9	25.5	24.4	21.3
Poverty Gap (%)					
US$3.2 PPP	0.4	0.3	0.5	0.5	0.2
US$5.5 PPP	3.2	1.7	1.3	1.3	0.5
NPL-50%	5.9	4.4	6.6	6.3	4.2
NPL-60%	8.3	6.7	9.1	8.7	6.5
Poverty Gap Squared (%)					
US$3.2 PPP	0.3	0.2	0.4	0.4	0.2
US$5.5 PPP	0.6	0.3	0.7	0.7	0.3
NPL-50%	3.0	2.0	3.4	3.3	1.9
NPL-60%	4.3	3.1	4.8	4.6	2.9

Source: Own estimates based on Turkey 2020 and 2021 SILC microdata.

Note: The table shows the inequality ratios for each income concept. Market income with Simulation refers to before government transfers, Market Income refers to after income support transfers in 2020 and Disposable income refers to after direct transfer.

The overall impact of transfers on poverty is much larger in pandemic than 2019. However, income support for employee during the pandemic has a more muted impact on poverty reduction effect than direct transfers. Only direct transfers are considered, poverty headcount ratio at NPL 50% and NPL %60 decrease by approximately 3 percentage points.

Income support programs provided to the employees reduces the poverty headcount ratio by about 1 percentage point, while going from the market income with simulation to the market income. The poverty headcount ratio decreases from 18.6 to 17.6 percent at NPL 50% and decreases from 25.5 percent to 24.4 percent at NPL 60%.

The effect of direct transfers on the decrease in the poverty rate is about 3 percentage points in 2020, while it was 2 percentage points in 2019. Moving from market income to disposable income, the poverty headcount ratio decreases from 17.6 percent to 14.4 percent at NPL 50% in 2020 and decreases from 17.2 percent to 15 percent in 2019.

The impact of direct transfers on poverty incedence is higher in 2020 than before the pandemic, and this improvement becomes more evident when income supports programs for employees are taken into account (Figure 5.3). In addition, more significant decreases are observed in the intensity and severity indicators, which correspond to the decrease in the poverty gap and the poverty gap squared, due to direct transfers in 2020 compared to before the pandemic. While direct transfers reduced the poverty gap rate by 24.8 percent before the pandemic, the poverty gap decreased by 33.3 percent in 2020 with the contribution of direct transfers. Income supports applied to compensate for the loss in employee incomes also helped to reduce the depth and severity of poverty, however degree of reduction is relatively low.
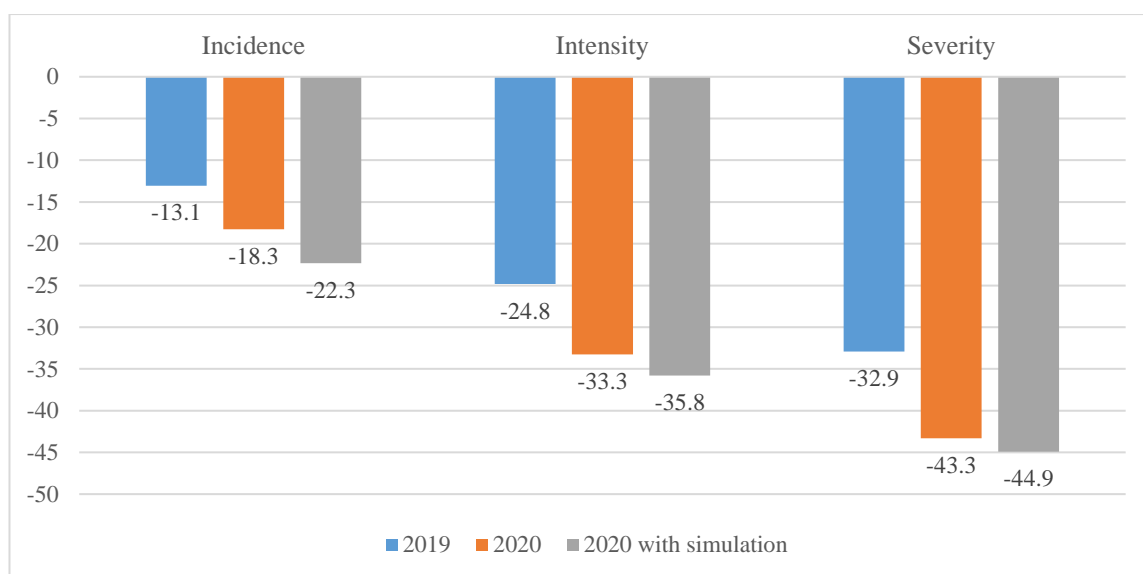
Figure 5.3 Impact of Combined Impact of Transfers on Poverty

The impact of transfers on the poverty gap is greater than the impact on the poverty rate (as shown in the poverty results of Figure 5.3). This can be explained by the fact that although the transfers reaching the poor do not raise the incomes of the beneficiaries above the poverty line, each contributes to closing the poverty gap by increasing their income. However, since transfers with different spending sizes are likely to reduce the poverty gap at the same rate, the reduction in the poverty gap alone

is not sufficient to explain the efficiency of transfer expenditures. In literature, the poverty reduction efficiency[24] indicator, which is expressed as the ratio of the decrease in the poverty gap to the transfer expenditures, is defined by Beckerman (1979) and Immervoll et al. (2009) to evaluate the efficiency of transfers.

In this study, poverty reduction efficiency and closely related to this indicator spillover index and vertical expenditure efficiency indicators are compared for 2019 and 2020 by considering transfers as a bulk and excluding income supports from all transfers (Table 5.4). The vertical expenditure efficiency indicator show how much the of transfers amount reaches the poor before the transfer.While those whose incomes are below the poverty line (calculated according to 50% median income) reached 39 percent of direct transfers in 2019, this rate decreased to 38 percent in 2020. When income supports provided to employees are included in direct transfers, the rate of those who fall below the poverty line (calculated according to 50% median income) from all transfers decreased to 27.5 percent, falling below 38 percent. There is an insured working condition to benefit from income support, while most direct transfer programs prioritize those whose income is below a certain threshold. Therefore, the fact that income supports cannot increase the amount of transfers reaching the poor as much as they increase the total amount of transfers has decreased the vertical efficiency of all transfers.

The Spillover Index shows the amount of additional transfers given to those who were poor before the transfer after they went above the poverty line. For efficient use of the transfer, it is expected that the amount of spillover will be low, and the efficiency rate of the transfer will decrease as the spillover increases. The spillover index of direct transfers decreased from 29 percent in 2019 to 23 percent in 2020. It means that direct transfers are used more effectively in 2020 than before the pandemic. When the income support for employees during the pandemic period is included to direct transfers, the spillover index of all transfers in 2020 has increased by about 2 percentage points to 25 percent, but there is still a more effective use than in 2019.

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[24] Poverty reduction efficiency is the ratio that shows how much of the transfers contribute to reducing the pre-transfer poverty gap.

Table 5.4 Beckerman and Immervol Poverty Effectiveness Indicators

	%50 Median NPL			%60 Median NPL		
	2019	2020	2020 with simulation	2019	2020	2020 with simulation
Vertical Expenditure Efficiency (A+B)/(A+B+C)	39.2	37.9	27.5	47	45.8	34.7
Spillover Index B/(A+B)	29.4	23	25.1	23.4	17.9	19.7
Poverty Reduction Efficiency A/(A+B+C)	27.7	29.2	20.6	36	37.6	27.8

Note: A means expenditure for the poor who still do not exceed the poverty line even after transfer; B indicates the expenditure for the poor who exceed the poverty line after the transfer; and C is the expenditure for the non-poor

The poverty reduction effectiveness of direct transfers increased from 27.7 percent in 2019 to 29.2 percent in 2020, with a slight increase in the poverty reduction effectiveness of direct transfers in 2020. The decrease in the spillover index (spillover index falling from 29.4 percent in 2019 to 23 percent in 2020) causes an increase in the poverty reduction efficiency of transfers in 2020, while the decrease in the ratio of transfers reaching the population below the pre-transfer poverty line in total transfers (vertical efficiency decreased from 39.2 percent in 2019 to 37.9 percent in 2020) limits the increase in the poverty rate.

The poverty reduction efficiency of all transfers falls to 20.6 percent in 2020, when income supports programs are included in direct transfers. Despite the increase in the total size of transfers, the decrease in the share reaching the poor (vertical efficiency falling from 37,9 percent in 2020 to 27,5 percent in 2020 with simulation) and the continuation of the increase in the incomes of those who are no longer poor after the transfers have disrupted the optimal distribution in the efficiency of transfers (spillover index increase from 23 percent in 2020 to 25 percent in 2020 with simulation) and led to a decrease in the effectiveness of poverty reduction.

5.3.3 Individual Contributions of Direct Transfers to Inequality

The incidence of transfers across deciles, as a share of market income shows how all transfers impact different deciles of the income distribution (Figure 5.4). Direct transfers system provides more social assistance in the first decile in 2020 in terms of incidence of transfers. Direct transfers increase the Market Income of the bottom decile by 42 percent in 2020 whereas these transfers represent an income increase of 29 percent in 2019. According to the simulation results, the pandemic period income support programs affected the Market Income of the 2nd and 5th tenths at most. For these deciles, income support programs represent an additional 5 percent increase in market income, while for the richest decile these bring about an income increase of 1.1 percent.
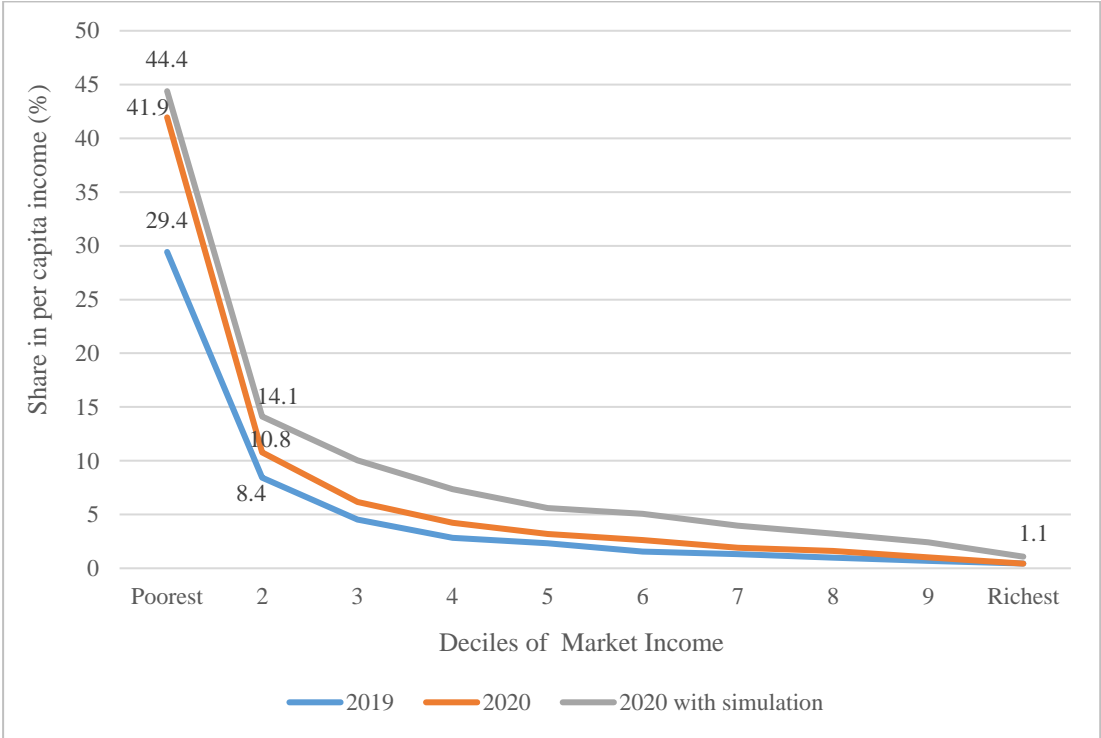
Note: Calculated changes from Market income to Disposable income.

Figure 5.4 Incidence Curve of Transfers in 2019 and 2020

The marginal contribution of the income distribution and the Kakwani coefficient of each transfer are presented in Figure 5.5. Kakwani coefficient allows us to compare progressivity of transfers taking the difference between the pre transfer income Gini coefficient and concentration coefficients of a specific transfer.[25] Positive Kakwani coefficients (Figure 5.5) show us to each of transfers exhibit a progressive pattern, which means benefits from transfers decrease as beneficiaries' income increases. However, for any transfer to be pro-poor, not only is the positive Kakwani coefficient sufficient, but the concentration coefficient must also be negative. Of the programs executed for the first time during the pandemic period, only the pandemic support program is pro-poor[26] (as shown in the concentration coefficient results of Appendices A) given its poverty-targeted design.

To answer the question of whether the transfer is equalizing or not, Enami et al. (2018) calculate the marginal contribution of a transfer to inequality by using the difference between the Gini coefficient of the relevant end income concept without and with the transfer. As a result of the pandemic social support program being pro-poor, its marginal contribution is almost the same level as the short-time working allowance, despite the expenditure size of its program, which corresponds to about one-fifth of the short-time working allowance. The marginal contributions to inequality reach 0.002 Gini points for Pandemic social support program and short-time working allowance.

Unemployment transfer and sickness transfer are other prominent assistance programs during the pandemic period, apart from the income support programs and the pandemic social support program. After the short-time working allowance, the unemployment transfer with the highest expenditure in 2020 accounting for 12.3 percent of all transfers. The share of sickness benefits in total transfers increased from 1.7 percent in 2019 to 7.3 percent during the pandemic period.

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[25] The index originally proposed by Kakwani (1977) measures only the progressivity of taxes. Lambert (1985) adapted to the measurement of transfers. If the Kakwani index is above zero, the transfer is progressive, if it is below zero, the transfer is regressive. And the transfer is neutral, if it is equal to zero.

[26] That is, the pandemic support program expenditure both decreases with the market income and, unlike the short-time working and cash wage support, the per capita expenditure in this transfer expenditure tends to decrease with the market income.
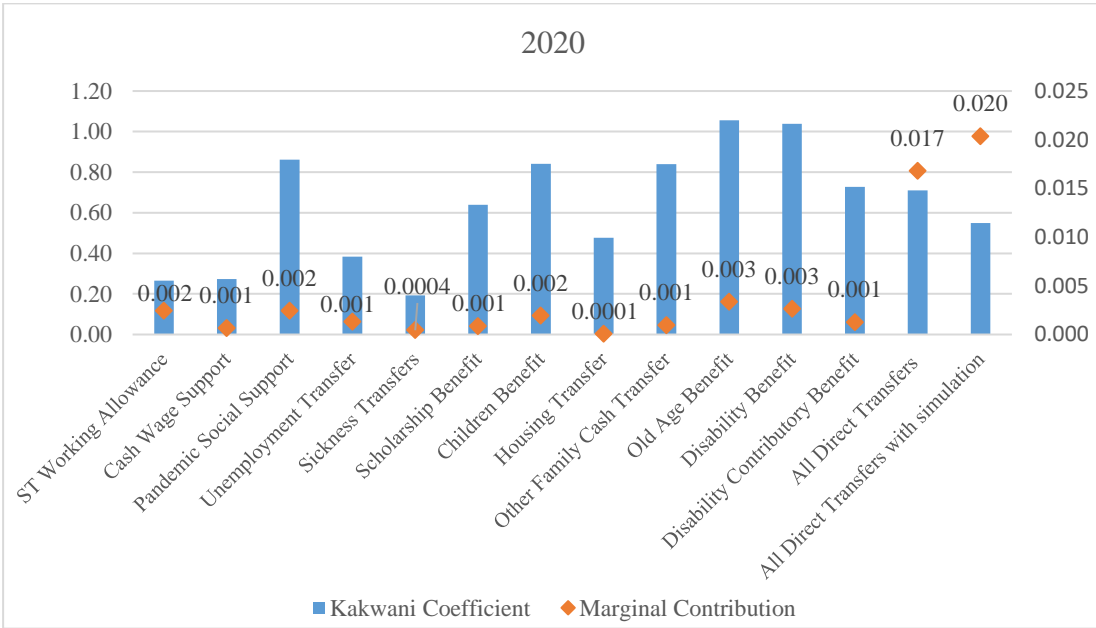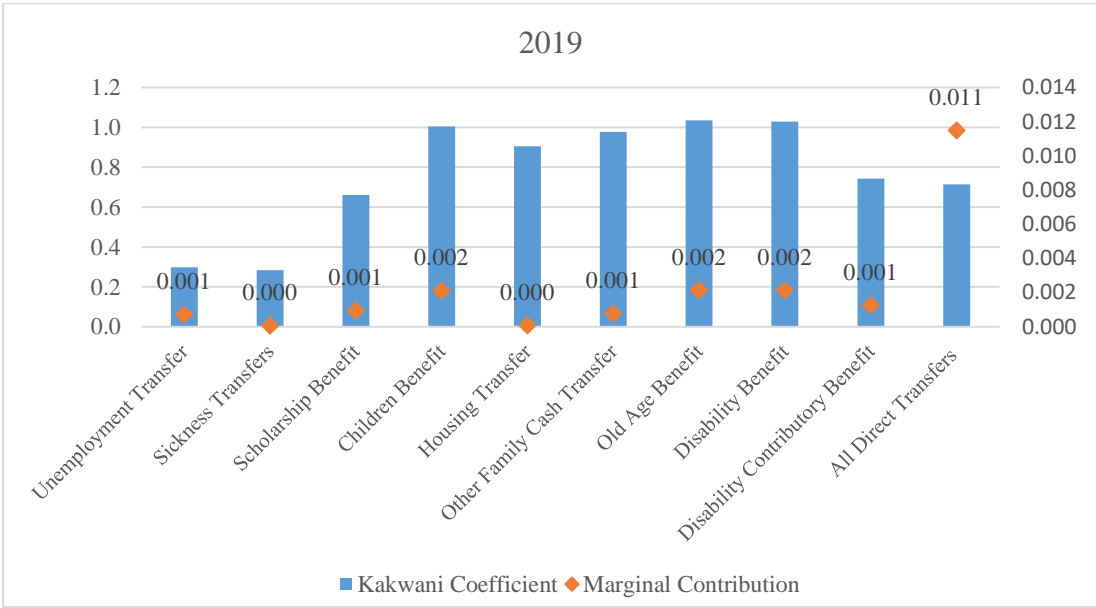
Figure 5.5 Marginal Contributions of Transfers to Income Inequality (Gini points)

The Kakwani coefficient is positive for all programs that increase in importance and budget size during the pandemic period, unemployment and sickness tansfers and old age benefit, disability benefit and child benefit. However all exhibit a progressive pattern, there is marked heterogeneity across them. Old age benefit, disability benefit, and child benefit are strongly progressive, given their poverty- targeted design, so their marginal impacts look relatively higher than other direct transfer programs. Old age

benefit and disability benefit have the largest impact on the decline in inequality, with a marginal contribution of about 0.003 Gini points.

Despite having relatively large budget the unemployment program has the smallest distributional impact among all programs, since it has low progressivity with insured working criteria. While the transfers with the highest marginal contribution to income equality are the transfers of old age and disability in 2020, the marginal contribution of the unemployment transfer reachs only 0.001 Gini points. The marginal contribution of old age, disability and child benefit transfers to income distribution, each of which has less than half of the spending in unemployment transfer, is more than twice the unemployment transfers.

5.3.4 Individual Contributions of Direct Transfers to Poverty

Direct transfers decrease in poverty headcount ratio by 2.15 percentage points in 2019, 3.11 percentage points in 2020. The impact rises to 4.2 points when the programs implemented to protect employee incomes during the pandemic period are included in the direct transfers in 2020.

The program with the strongest impact on poverty is the short term working allowance, reducing the poverty headcount ratio by 0.75 percentage points. The individual impact of cash wage support is relatively small, able to reduce poverty by 0.19 percentage points, despite targeting households with asimilar income composition as the short term working allowance. The fact that the amount of the short-time working allowance is approximately 3.6 times the cash wage support, is one of the determining factors in its higher marginal contribution to povert reduction.
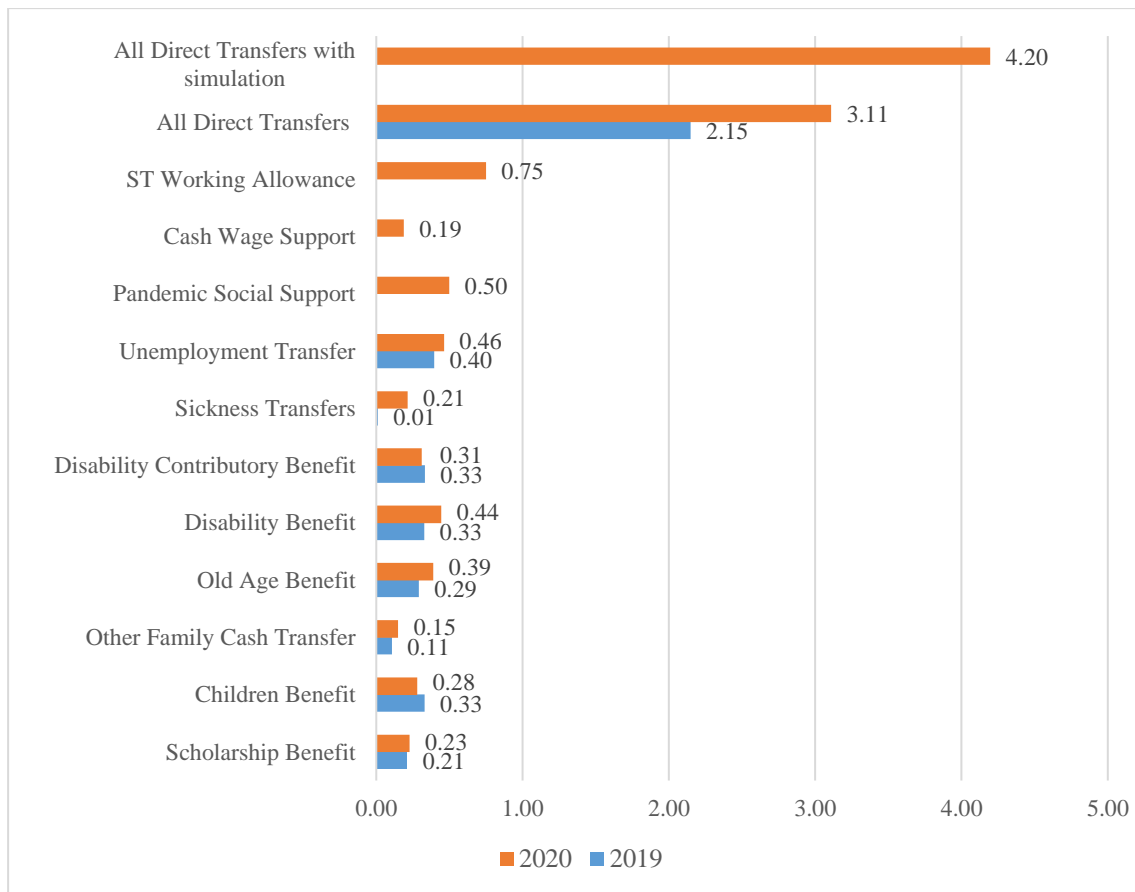
Figure 5.6 Marginal contribution of Transfers to Poverty Reduction in 2019 and 2020

The pandemic support program, with its more targeted approach, has a much greater impact on poverty reduction despite lower expenditure than other transfers (as shown in the spending of Transfers results of Table 5.1). The poverty reduction impact of the this support program applied to protect low-income households from the risk of poverty is 0.50 percentage points. If the the pandemic social support program had more spending in 2020, the poverty reduction impacts of transfer policy could be improved thanks to pro-poor designed.

Unemployment transfer, which is implemented to reduce the negative effects of the pandemic on the labor market reduces poverty by 0.46 percentage points in 2020 from 0.40 percentage points in 2019. Unemployment transfer expenditures rose by only 3% in nominal terms compared to 2019 thanks to policy measures to prevent layoffs during the pandemic period. Thus, there was no significant increase in its contribution to poverty reduction compared to the previous year, and it lagged behind the poverty

reduction performance of the short-time working allowance targeted at households with the same income composition.

The impact of sickness transfer on poverty is the transfer that increased the most during the pandemic period compared to the previous year. According to the results of the SILC microdata, the social benefits received by employees due to paid sick leave increased more than 10 times from approximately 532 thousand TL in 2019 to 5.7 billion TL in 2020. The increase in expenditures increased the marginal contribution of sickness transfers to poverty reduction in 2019 increased from 0.01 percentage points to 0.21 percentage points in 2020.

There has been an increase in the monthly payments of some social assistance programs in 2020 to protect the more disadvantaged groups from the worsening economic conditions during the pandemic. According to the results of SILC, the nominal increase in child benefits is 29%, reflecting the increase in monthly payments for Military Children in Need and Orphan Assistance during the pandemic period. Despite the increase in expenditure, the fact that low-income individuals benefit from this aid at a lower rate compared to the previous year leads to a decrease in the poverty-reducing effectiveness of child transfer. Low-income deciles benefited from this assistance at a lower rate compared to the previous year, the first three deciles received 76 percent of assistance in 2019 and 59 percent in 2020 also diminishing the progressivity, and the marginal contribution of child transfer to poverty reduction has decreased in 2020.

CHAPTER 6

CONCLUSION

The functioning of social and economic life around the world has been significantly interrupted due to the Covid-19 pandemic. Many support packages have been announced on a global scale to limit the spread of the pandemic and reduce its negative effects on the economy. The Economic Stability Shield Package was implemented in Turkey. In order to reduce the effects of the pandemic on the labor market and to ensure continuity in the cash flow of the household, short-time working allowance, cash wage support and pandemic social support program were applied. In addition, the scope and size of the direct transfers are already in existence have been increased.

Turkey's income distribution and poverty indicators are analyzed as of 2020, the improvement in these indicators stands out despite the Covid-19 crisis. The Gini coefficient, which is one of the important income distribution indicators, decreased from 0.410 in 2019 to 0.401 in 2020, and the income gap between the last (richest) 10% income group and the first (poorest) 10% income group decreased (P90/P10) from 14.6 times to 13.7 times. The poverty rate and poverty gap have also decreased in 2020 compared to the pre-Covid-19.

At the same time, 2020 was a year in which a decrease was observed in the annual average individual real income for the first time in Turkey after 2007 and 2009, with a negative increase rate of approximately 2.6 percent. In 2020, the reducing effect of the Covid-19 crisis on individual incomes was felt intensely in the highest (richest) 20% income group, whose average real income decreased by 4.2 percent compared to the previous year. The average real income of those in the lowest 20 percent income group has remained at its pre-pandemic level, unlike other income groups. Therefore, it can be evaluated that the positive outlook in the Gini coefficient and poverty indicators in 2020 is due to the decrease in average real individual incomes, as well as the fact that 57 percent of this decrease is in the highest 20% income group.

In this study, with a detailed and comprehensive analysis, the success of government subsidies implemented in 2020 in order to reduce the negative effects of the Covid-19 pandemic on the welfare of households in Turkey, in protecting the poor and compensating for the income losses of the working people has been examined. Within this scope, the contribution of social assistance with increased amount and scope, as well as support for employees and households facing the risk of poverty, in ensuring income equality and reducing poverty has been analyzed. Thus, it has been investigated to what extent the improvement in poverty and income distribution indicators in 2020 can be associated with the "Economic Stability Shield Package" announced to reduce the fallout of Covid-19 on the economy. In the study, changes in the Gini coefficient, Theil index, P90/P10 and P80/P20 indicators, which are important inequality indicators, are discussed in order to determine the effect of income supports and direct transfers on income inequality. The changes in poverty rate and poverty gap indicators are examined, and compared with the pre-Pandemic poverty reduction effectiveness of direct transfers with Beckerman and Immervol Effectiveness Indicators. In addition to its progressiveness the marginal effects of each program on income inequality and poverty are revealed.

According to the results of the analysis, the Gini coefficient is estimated to be 0.421 in the scenario where there is no income support (short-time working allowance and cash wage support) for employees in 2020. The Gini coefficient, which fell from 0.421 to approximately 0.418 with the contribution of income support programs for employees, decreased from 0.418 to 0.401 with the contribution of direct transfers. In 2019, before the pandemic, the Gini coefficient decreased from 0.422 to 0.410 with the effect of direct transfers. In this context, the improving effect of direct transfers on the Gini coefficient increased from 0.011 points in 2019 to 0.017 points in 2020, and reached 0.02 points when income supports are considered.

The income gap between the rich and the poor was estimated to increase from 8 times in 2019 to 9.1 times in 2020 for the P80/P20 indicator under the scenario without income supports and direct transfers during the pandemic period, while this gap decreased to 8.96 times with the contribution of income supports. Considering the contribution of direct transfers, the P80/P20 indicator decreased from 8.96 times to 7.7

times in 2020. In 2019, the income gap between the richest and the poorest decreased from 8.9 times to 8 times, showing a more limited improvement after direct transfers.

The P80/P20 and P90/P10 indicators, which are based on the income gap between the highest and lowest income groups, show that the income gap between the richest and the poorest will increase more in 2020 compared to 2019 if the income losses of employees due to Covid-19 are not compensated. In the Gini coefficient, which is more sensitive to changes in the middle-income group, under the assumption that there is no transfer to compensate for income losses, the distorting effect of Covid-19 on income distribution equality becomes less prominent. These results confirm the argument in the literature that the damage caused by Covid-19 on household incomes is felt more severely by the poor rather than the middle-income group. In poverty indicators, the poverty-increasing effect of the Covid-19 crisis is more clearly noticed.

According to the results of the analysis, it is estimated that the poverty headcount ratio in 2019 (based on 50% of the median income) would increase from 15 percent to 18.6 percent in 2020 under the scenario of the absence of direct transfers and income support, which aims to protect the low-income and disadvantaged groups and to ensure continuity in employment. The poverty headcount ratio decreased by 1 percentage point to 17.6 percent thanks to income supports, and decreased by 3.2 percentage points to 14.4 percent with the contribution of direct transfers. The stagnation in economic activities, which led to a decrease in wages and encouraged the increase in poverty, has been partially prevented by the support of short-time working allowance and cash wage support, and a decrease in the poverty rate compared to 2019 has been achieved with the direct transfers the scope and size of which have increased during Covid-19 crisis.

The reducing effect of direct transfers on the poverty gap and the square of the poverty gap indexes, which show the depth and severity of poverty, respectively, is higher in 2020 compared to the previous year. Direct transfers reduced the depth of poverty by 25 percent and the severity of poverty by 33 percent before the pandemic, the rate of decrease in these indicators increased to 33 percent and 43 percent, respectively, in 2020. The reduction in the poverty gap alone is not sufficient to explain the effectiveness of transfer expenditures, to analyze the targeting effectiveness of transfers Beckerman and Immervoll Effectiveness Indicators are used in the study.

Although the scope and size of direct transfers increased in 2020, the decrease in the ratio of transfers reaching the population below the pre-transfer poverty line in total direct transfers compared to 2019 (vertical efficiency decreased from 39.2 percent in 2019 to 37.9 percent in 2020) limited the poverty reduction efficiency of direct transfers to 29.2% in 2020.

The poverty reduction efficiency of all transfers falls to 20.6% in 2020, when income supports programs are included in direct transfers. Since the informal workers and the poor were not the target group for short-time working and cash wage support, income supports increased the total amount of transfers, while the amount of transfers reaching the poor could not increase. Despite the increase in the total size of transfers, the decrease in the share reaching the poor (vertical efficiency falling from 37,9 percent in 2020 to 27,5 percent in 2020 with simulation) and the continuation of the increase in the incomes of those who are no longer poor after the transfers have disrupted the optimal distribution in the efficiency of transfers (spillover index increase from 23 percent in 2020 to 25 percent in 2020 with simulation) and led to a decrease in the effectiveness of poverty reduction.

The effects of income support programs and direct transfers on income distribution are analyzed on a program basis, the highest contribution to income equality in the Covid-19 crisis comes from old age benefit and disability benefits with 0.003 Gini point. Old age benefit and disability benefit are strongly progressive, given their poverty- targeted design, so their marginal impacts look relatively higher than other direct transfer programs. In addition, the increase in the transfers of old age benefits and disability benefits by 74 percent and 40 percent, respectively, compared to the previous year, increased their contribution to income equality compared to 2019. The effects of the short-time working allowance and cash support programs applied for the first time during the pandemic period to improve the income distribution are 0.002 and 0.001 Gini points, respectively.

The most marginal contribution to poverty reduction during the Covid-19 crisis is the short-time working allowance and the pandemic social support program. The marginal contribution of the short-time working allowance applied to compensate for the losses in employee incomes in reducing poverty is 0.75 percentage points, while the

individual impact of cash wage support is relatively small, able to reduce poverty by 0.19 percentage points. The poverty reduction impact of the pandemic social support program applied to protect low-income households from the risk of poverty is 0.50 percentage points. The pandemic support program, with its more targeted approach, has a much greater impact on poverty reduction despite lower expenditure than other transfers. If the the pandemic social support program had more spending in 2020, the poverty reduction impacts of the government transfer policy could have been further improved thanks to its pro-poor designed.

The impact of sickness transfer on poverty is the transfer that increased the most during the pandemic period compared to the previous year. According to the results of the SILC microdata, the social benefits received by employees due to paid sick leave increased more than 10 times from approximately 532 thousand TL in 2019 to 5.7 billion TL in 2020. The increase in expenditures increased the marginal contribution of sickness transfers to poverty reduction in 2019 increased from 0.01 percentage points to 0.21 percentage points in 2020.

Unemployment transfer, which is implemented to reduce the negative effects of the pandemic on the labor market reduces poverty by 0.46 percentage points in 2020 from 0.40 percentage points in 2019. Unemployment transfer expenditures rose by only 3 percent in nominal terms compared to 2019 thanks to policy measures to prevent layoffs during the pandemic period. Although the expenditure of unemployment transfer is about 2 times of the Pandemic social support program, the marginal contribution of unemployment transfer to poverty reduction is far behind the Pandemic social support program.

There have been regulations in tax policies in 2020, in addition to transfer policies in Turkey. In the study, the effects of fiscal policies on income inequality and poverty in 2020 could not be examined due to the absence of microdata. Microdata, which includes information on households' incomes in 2021 or 2022, has also not yet been published. Therefore, in future studies, more comprehensive analyzes including detailed analyzes of poverty and inequality for the following years, spillover effects, behavioral effects and externalities of financial interventions can be done.

REFERENCES

Almeida V., Barrios S., Christl M., De Poli S, Tumino A., Van Der Wielen W. "The Impact of Covid-19 on Houeseholds' Income in the EU. The Journal of Economic Inequality (2021) 19:413–431.

Bayar A. A., Günçavdı Ö., Levent H., (2022). "Evaluating the impacts of the Covid-19 pandemic on unemployment, income distribution and poverty in Turkey" Science Direct Economic Systems. Volume 46, Issue 4.

Beckerman, Wilfred. 1979. "The Impact of Income Maintenance Payments on Poverty in Britain, 1975." *Economic Journal* 89, pp. 261–79.

Bruckmeier K., Peichi A., Popp M., Wiemers J., Wollmershauser K. (2021). "Distributional effects of macroeconomic shocks in real-time: A novel method applied to the COVID-19 crisis in Germany, The Journal of Economic Inequality 19:459–487.

Central Bank of the Republic of Türkiye (CBRT) (2020). Inflation Report 2020-II.

Enami, Ali, Nora Lustig, and Rodrigo Aranda. 2018. "Analytic Foundations: Measuring the Redistributive Impact of Taxes and Transfers," *Commitment to Equity Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty*, Nora Lustig, editor, Brookings Institution Press and CEQ Institute, Tulane University.

Gentilini, U., M. Almenfi, P. Dale, A.V. Lopez, I. Mujica, R. Quintana, and U. Zafar (2020). Social Protection and Jobs Responses to COVID-19. Living Paper, Version 11 (June 12), World Bank, Washington, DC.

Han J., Meyer B. D., Sullivan J. X. (2020). "Income and Poverty in the Covid-19 Pandemic" NBER Working Paper No: 27729.

Immervoll, Herwig, Horacio Levy, Jose Ricardo Nogueira, Cathal O'Donoghue, and Rozane Bezerra de Siqueira. 2009. "The Impact of Brazil's Tax-Benefit System on Inequality and Poverty,"in *Poverty, Inequality, and Policy in Latin America*, edited by Stephan Klasen, and Felicitas Nowak-Lehmann, 271–302 (MIT Press).

International Labor Organization (ILO) (2020), Unemployment Protection in the COVID-19 Crisis: Country Responses and Policy Consideration, 1-9 from https://www.ilo.org/secsoc/information-resources/publications-and-tools/Brochures/WCMS_754741/lang--en/index.htm, June 16, 2022.

International Monetary Fund (IMF) (2020a), Fiscal Monitor: Policies to Support People During the COVID-19 Pandemic, April 2020, Washington, DC.

IMF (2020b), Fiscal Monitor: Policies for the Recovery, October 2020, Washington, DC.

IMF (2021a), Fiscal Monitor: A Fair Shot, April 2021, Washington, DC.

IMF (2021b), Fiscal Monitor: Strengthening the Credibility of Public Finances, October 2021, Washington, DC.

İstanbul Tekstil ve Konfeksiyon İhracatçı Birlikleri, (İTKİB), Retrieved from https://www.itkib.org.tr/files/downloads/gundem/covid_duyuru/COVID19%20KAPSAMINDA%20%C3%9CLKEM%C4%B0ZDE%20ALINAN%20%C3%96NLEMLER-30.06.2020.pdf, November 17, 2022

İŞKUR (2022). Bulletin of Unemployment Insurance for March 2022. Retrieved from https://www.iskur.gov.tr/kurumsal-bilgi/yayinlar/, June 15, 2022

Kakwani, Nanak C. 1977. "Measurement of Tax Progressivity: An International Comparison." *Economic Journal* 87, no. 345, pp. 71‑80.

Lambert, Peter. 1985. "On the Redistributive Effect of Taxes and Benefits." *Scottish Journal of Political Economy* 32, no. 1, pp. 39‑54.

Lusting N., Editor (2018). 2018. *Commitment to Equity Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty.* CEQ Institute at Tulane University and Brookings Institution Press. Retrieved from http://commitmentoequity.org/publications-ceq-handbook

Lusting N., Pabon V. M., Sanz F, Younger S. D. (2020) "The Impact of COVID-19 Lockdowns and Expanded Social Assistance on Inequality, Poverty and Mobility in Argentina, Brazil, Colombia and Mexico. Center for Global Development Working Paper No: 556.

(Abolished) Ministry of Family, Labor and Social Services (2020). 2020 Yılı Faaliyet Raporu.2021. Retrieved from https://www.aile.gov.tr/raporlar/yillik-faaliyet-raporlari/, June 12,2022.

Ministry of Family and Social Services (MoFSS) (2021), Annual Report for 2020 Retrieved from https://www.aile.gov.tr/raporlar/yillik-faaliyet-raporlari/, June 12, 2022.

Organization for Economic Co-operation and Development (OECD) (2020a). OECD Economic Outlook. Paris.

OECD (2020b). OECD Employment Outlook 2020: Worker Security and the Covid-19 Crisis. Paris.

OECD (2020c). Job Retention Schemes During The Covıd-19 Lockdown And Beyond. Retrieved from https://www.oecd.org/coronavirus/policy-responses/job-retention-schemes-during-the-covid-19-lockdown-and-beyond-0853ba1d/, October 20, 2022.

OECD (2020d), Supporting livelihoods during the COVID-19 crisis: closing the gaps in safety nets, Retrieved from https://www.oecd.org/coronavirus/policy-responses/supporting-livelihoods-during-the-covid-19-crisis-closing-the-gaps-in-safety-nets-17cbb92d/, November 17,2022

OECD (2021). OECD Employment Outlook 2021: Navigating the Covid-19 Crisis and Recovery. Paris.

Precidency of Strategy and Budget (PoSB), Pre-Accession Economic Reform Program 2021-2023 (2021), Retrieved from https://www.sbb.gov.tr/katilim-oncesi-ekonomik-programlar/, June 12, 2022.

Precidency of Strategy and Budget (PoSB), Pre-Accession Economic Reform Program 2021-2023 (2021), Retrieved from https://www.sbb.gov.tr/katilim-oncesi-ekonomik-programlar/, January 12, 2022.

Precidency of Strategy and Budget (PoSB), Pre-Accession Economic Reform Program 2022-2024 (2022), Retrieved from https://www.sbb.gov.tr/katilim-oncesi-ekonomik-programlar/, January 12, 2022.

Tekgüç H., Unsal E., Yeldan A. E. (2022). "Poverty And Income Distribution Incidence of the COVID-19 Outbreak: Investigating Socially Responsible Policy Alternatives for Turkey" Southeast European and Black Sea Studies.

Turkish Employment Organization (İŞKUR) (2020), Annual Report for 2020. Retrieved from http://media.iskur.gov.tr/44147/2020-yili-faaliyet-raporu.pdf, July 5, 2022.

Türkiye İhracatçılar Meclisi (TİM), 14 Nisan 2020 İtibariyle COVID-19 ile Mücadele İçin Ülkemizde Alınan Tedbirler, Retrieved from https://www.tim.org.tr/files/downloads/Koronavirus_Dosyasi/TIM_Ekonomik_Istikrar_Kalkan%C4%B1_Tedbirleri_14.04.2020.pdf, September 30,2022.

United Nations Conference on Trade and Development (UNCTAD) (2022). Impact of the COVID-19 Pandemic on Trade and Development. Geneva.

Voyvoda E., Yeldan A. E. (2020) "Covid-19 Salgının Türkiye Ekonomisi Üzerine Etkileri ve Politika Alternatiflerinin Makroekonomik Genel Denge Analizi", *Salgın Ekonomisi*, Lütfü Ömer Faruk Çolak, Editör, Eflatun Yayınevi, Ankara, ss.190-220.

World Bank (WB), (2022a). Global Economic Prospects. Washington, DC.

WB (2022b). World Development Report: Finance for an Equitable Recovery. Washington, DC.

A. EMPIRICAL APPROACH TO MEASUREMENT OF GOVERNMENT TRANSFERS

SILC questionnaire and administrative records are the main source of identification and classification for direct transfers. The amounts stated in the survey and administrative records are assumed to reflect the actual amount received by individuals and households. However, the structure of some of the questions in the survey made it necessary to make assumptions for several transfer programs. These assumptions ensure that the transfer programs reported in the questionnaire are in the same classification as the direct transfer programs offered by the government.

1. Old Age Transfer: In the SILC, both old age transfer and pension are reported in the same question, therefore it is assumed that reported old age transfers cannot exceed the maximum amount[27] 8,298 TL and amounts above this threshold are pension payments for 2020. Within the scope of the thesis, retirement is included in market income as deferred income. Therefore, this assumption is necessary to separate the old-age transfer and retirement data into two separate datasets.

2. Disability Benefit (Non-contributory Disability Transfer): Disability Benefit is paid to people with a disability of 40 percent or more and whose per capita income is less than one-third of the minimum wage. In SILC questionnaire, disability benefit and disability contributory transfer are reported in the same question. Since, disability benefit cannot exceed the maximum amount (852TL x 12 months =

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[27] For the period of January-June 672TL*6 months =4,032TL; because of wage rise in the period of July-December 711TL*6 months=4,266. So, total wage is 4,032TL+4,266TL=8,298TL.

10,224 TL)[28] it is assumed that reported amounts below this threshold are disability transfers.

3. Disability Contributory Transfer (Contributory Disability Transfer): This system implemented to compensate for the grievances of people whose working life is interrupted at an early age as a result of work accidents or occupational diseases or by catching a serious illness. Since both contributory and non-contributory disability transfers are reported in the same question and the non-contributory disability transfer cannot be higher than the contributory disability transfer, it is assumed that those who receive the amounts over 10,224 TL benefit from the contributory disability transfer.

4. Other Direct Transfers: Unemployment Transfer, Housing Benefit[29], Sickness Transfer, Scholarsip Benefit, Child Benefit[30] are reported separetely in the questionnaire. It is assumed that the amounts received by the beneficiaries are accurately declared, without the need for any other assumptions for these transfers.

5. Family Transfer (Other): In the SILC questionnaire, direct cash transfer in the category of other cash benefits for the household is defined as family benefits in the study.

6. Pandemic Social Support Program: Family benefits in the SILC questionnaire are separated from the Pandemic social support program. In the SILC microdata, households that declared that they received family assistance were randomly selected under the conditions and size constraints of benefiting from the Program. Since the Program is implemented in several phases and there is no requirement to receive only for once, it is assumed that a household can benefit at most 3 times.[31]

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[28] 70 percent disabled people receive 852 TL per month with the increase in July 2020.

[29] Housing Benefit helps people living in very old, dilapidated and unsanitary homes with the maintenance, repairs and purchases household goods including rental assistance

[30] However, since there is no direct transfer that can be called child benefit, it is assumed that education and health benefits given to households because of their children are included in this transfer. Although needy military child benefit and orphan benefit are delivered as Family Benefits by the Ministry of Family, within the scope of the thesis these benefits which related to child are assessed under the name of child benefit.

[31] According to the SILC microdata, it is assumed that 63.4 percent of 3.4 million households benefited from the transfer of 1000 liras once, 19.8 percent of them twice, and 16.7 percent of them three times.

7. Measures to support employment in pandemic: Market incomes were simulated by considering the benefiting conditions and financial cost from STW allowance and cash wage support. A total of 5.8 million employees, who are declared to have benefited from these supports, were randomly selected from the SILC microdata survey according to the condition of benefiting from the support, the degree of impact of the sectors from the pandemic and the sectoral weight in SILC. Based on the data on the number of beneficiaries and the total expenditure of each programme (Table 1), the amount of support received by the beneficiary was calculated. Thus, it is assumed that a person who receives short-time working allowance receives an average of 6,524 TL, and a person who receives unpaid leave from the workplace and receives cash wage support receives 2,923 TL throughout 2020.

Table A.1 Fiscal Supports for Employees and Households in 2020 in the Scope of the Study

	Measures to Support Employment		Social Assistance Supporting Households
	STW Allowance	Cash Wage Support	Pandemic Social Support Program
Payment Amount (TL)	23,371,396,994	6,478,346,870	6,530,331,000
Beneficiaries (Households/ Workers)	3,582,455	2,216,622	6,530,331

Source: MoTF, PoSB, SGK and <https://www.csgb.gov.tr/haberler/bakan-selcuk-sosyal-koruma-kalkani-kapsaminda-yaptigimiz-yardimlarin-tutari-45-5-milyar-liraya-yaklasti/>

The random selection of 3.6 and 2.2 million beneficiaries who were declared to benefit from short-time working allowance and cash wage support in 2020, according to the sectoral weight and the degree of impact of the sectoral activities, was made by taking

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Thus, the cost of the pandemic social support program in SILC is 5.2 billion TL, covering 80 percent of the total amount of the program.

into account the conditions of benefiting from the supports (being insured, not receiving old and unemployment benefits, etc.) from the SILC microdata (Table A.2).

Table A.2 Selection of Income Support Beneficiaries from SILC Microdata According to Sectoral Weight and Sectoral Activities in 2020

Sectors	Weights based on SILC	Degree of limitation of activities	Number of Beneficiaries of Cash Wage Support	Number of Beneficiaries of STW Allowance
Agriculture	0.74	0	-	-
Mining	0.75	3	37,345	60,356
Manufacturing	23.16	2	767,590	1,240,561
Electricity, Gas, Steam and Air Condition	1.32	0	-	-
Construction	2.82	3	140,082	226,397
Wholesale and retail	10.75	2	356,334	575,899
Transportation	4.85	2	160,793	259,870
Accommodation	3.41	4	225,773	364,889
Information and Communication	1.30	1	21,620	34,942
Finance	2.59	1	42,979	69,462
Real Estate	0.91	4	60,233	97,347
Technical Activities	3.27	1	54,251	87,680
Administrative and Support Services	3.66	4	242,631	392,135
Public Administration and Defense	16.84	0	-	-
Education	13.31	0	-	-
Health and Social Care Activities	8.33	0	-	-
Culture, Art, Entertainment and Sport Activities	0.51	4	33,861	54,725
Other	1.47	3	73,130	118,191
TOTAL			2.216.622	3.582.455

Note:The reflection of the confinement measures taken to limit the spread of the COVID-19 virus on sectoral activities is classified in 4 categories. It is graded from 0 to 4 according to the employment being almost not affected by the measures and being most affected. Sectors that are completely active and essential are indicated with '0'. Employees in these sectors continue to work normally. Essential, active but teleworkable (or able to work remotely) is defined by '1', mostly essential, partially active and not teleworkable '2', mostly non-

essential, partially active and not teleworkable '3' and finally sectors most affected by confinement '4'(EU Commision Report, 2020:9-13, OECD, 2020:62).

Table A.3 Marginal Contributions of Each Government Transfers to Inequality and Poverty

	Concentration coefficients	Kakwani index	Marginal contributions to inequality (Gini points)	Marginal contributions to poverty (Percentage points)
Short Time Working Allowance	0,1557	0,2653	0,0024	0,750
Cash Wage Support	0,1480	0,2730	0,0007	0,188
Pandemic Social Support	-0,4401	0,8612	0,0024	0,500
Unemployment Transfer	0,0417	0,3794	0,0013	0,463
Sickness Transfers	0,1967	0,2244	0,0004	0,214
Scholarship Benefit	-0,2155	0,6365	0,0009	0,227
Children Benefit	-0,4210	0,8421	0,0019	0,280
Housing Transfer	-0,0522	0,4733	0,0001	0,009
Other Family Cash Transfer	-0,4178	0,8389	0,0009	0,149
Old Age Benefit	-0,6338	1,0549	0,0033	0,389
Disability Benefit	-0,6157	1,0368	0,0026	0,444
Disability Contributory Benefit	-0,2996	0,7206	0,0013	0,311
All Direct Transfers	-0,2931	0,7107	0,0168	3,11
All Transfers with simulation	-0,1280	0,5491	0,0203	4,196

B. TURKISH SUMMARY / TÜRKÇE ÖZET

Kovid-19'un tetiklediği ekonomik kriz, 2008-2009 global krizinden bu yana dünya çapında en derin GSYH daralmasının yaşanmasına neden olmuş (IMF,2021), büyümenin yavaşlamasıyla, yoksulluk ve gelir dağılımında önceki yıllarda elde edilen kazanımların kısmen de olsa tersine çevrilmesi riski ortaya çıkmıştır (World Bank,2022). Birçok ülke ekonomiyi canlandırmak, salgının bireyler ve firmalar üzerindeki olumsuz etkisini azaltmaya yardımcı olmak amacıyla ekonomik teşvik, destek ve kurtarma paketleri açıklamıştır. Bu paketlerin ortak amacı, hastalığın yayılmasını kontrol altına almak, enfekte olanları tekrar sağlıklarına kavuşturmak, ekonomik faaliyetlerin azalmasından etkilenen firmaların işten çıkarmalarını ve iflaslarını önleyerek insanları ve firmaları ekonomik çöküntüden korumaktır. (OECD, 2020).

Türkiye'de pandeminin ilk etkilerinin Mart 2020 yılında görülmeye başlanmasıyla salgının olumsuz etkilerini sınırlandırmak amacıyla Ekonomik İstikrar Kalkanı Paketi açıklanmıştır. Ekonomik İstikrar Kalkanı Paketi kapsamında; kısa çalışma ödeneği, nakdi ücret desteği ve hanehalkına yönelik karşılıksız parasal destek verilmesi gibi uygulamalar hayata geçirilmiştir (KEP, 2020). Ayrıca, 2020 yılında doğrudan transferlerin kapsamı ve büyüklüğü artırılmıştır.

Tezin amacı, resmi anket verilerine dayalı olarak, Covid-19 salgının gelir dağılımı ve yoksulluk üzerindeki etkisini incelenmek, 2020 yılında gelir desteklerinin ve artan doğrudan transferlerin gelir eşitliğine ve yoksulluğun azalatılmasına katkısını analiz etmektir. Bu çalışmada, 2019 ve 2020 yılı eşdeğer hanehaklı kullanılabilir fert gelirlerini temsil eden SILC 2020 ve 2021 yılı sonuçlarından ve amprik analiz için Eşitlik Taahhüdü (CEQ) metodolojisinden (Lustig 2018) yararlanılarak aşağıdaki araştırma sorularına cevap aranmaktadır:

- Covid-19 salgının Türkiye'de gelir dağılımı ve yoksulluk göstergeleri üzerinde olumlu ya da olumsuz etkisi var mıdır? Bu etkinin yönü ve büyüklüğü diğer şoklarla karşılaştırıldığında nasıldır?

- 2020 yılında kapsamı ve büyüklüğü artan sosyal yardımlar gelir eşitiğine ve yoksulluğun azaltılmasına katkısı var mı? Bu katkının büyüklüğü pandemi öncesine göre ne ölçüde değişiyor?

- Pandemi döneminde hane ve çalışan gelirlerine yönelik alınan yoksullukla mücadelede ve gelir eşitliğini sağlamada başarılı mıdır? Diğer transferler ile karşılaştırıldığında bu göstregeler üzerinde ne kadar etkili olmuştur?

CEQ metodolojisi maliye politikasının gelir dağılımı ve yoksulluk üzerindeki etkisini kapsamlı bir şekilde inceleme olanağı tanımasına rağmen çalışmada ele alınan doğrudan transferlerin kapsamı SILC mikro verisi tarafından sınırlanmaktadır. SILC anket formu yardımıyla bazı doğrudan transferlere program bazında ulaşılabilirken, bazıları için SILC mikro veri setindeki veriler ve yayınlanan kamu resmi verileri kullanılarak birtakım yaklaşımlar oluşturulmuştur. Ayrıca, analiz kısmı bir denge analizi olup mali müdahalelerin yayılma etkisi, davranışsal etkileri ve dışsallıklar analiz kapsamında incelenmemiştir.

Kovid-19 pandemisinin ülkelerin gelir dağılımı ve yoksuluk üzerine etkilerini tahmin etmeye çalışan çok sayıda çalışma mevcuttur. Çalışmalarda salgının tetiklediği ekonomik krizin yoksulluk üzerinde ciddi bir etkisinin olacağı öngörülmekte ve uygulanan politikaların bu etkiyi azaltacağı gösterilmektedir (Han et al., 2020; Lusting et al., 2020; Almeida et al., 2021; Mahler et al., 2022; Yeldan et al., 2023). Ancak ankete dayalı resmi verilerin gecikmeli açıklanmasından dolayı bu çalışmalarda çeşitli simülasyon tekniklerine ya da telefon anketlerine başvurulmuştur.

Literatüde, Türkiye'nin yoksulluk ve gelir dağılımına ilişkin çalışmalar daha çok yoksulluğun profiline ve yoksulluğu tanımlamaya yöneliktir. Türkiye'de özellikle pandemi dönemindeki transferlerin gelir eşitliği ve yoksulluğa etkilerinin amprik analize dayalı olan incelendiği çalışmalar çok azdır. Gelir ve yaşam koşullarına ilişkin

tüm nüfsusu temsil eden anketler genellikle görüşme anından itibaren yaklaşık 2 yıl gecikmeyle yayınlanması nedeniyle çalışmalarda araştırma sorusunun yanıtlama yeteneği büyük ölçüde verilerin mevcudiyeti ile sınırlanmaktadır. Tekgüç ve Yeldan (2021) ile Bayar ve Günçavdı (2022) Kovid-19 salgınının ve uygulanan politikaların etkisini güncel resmi verilerin yokluğunda sırasıyla 2017 yılı ve 2015 yılı hanehalkı gelirini baz alarak (SILC 2018 ve SILC 2016) 2020 yılı hanehalkı gelirini çeşitli yöntemlerle tahmin etmiştir.

Bu tez, pandemi döneminde Türkiye'de kapsamı ve miktarı artan doğrudan transferler ile 2020 yılında kısa çalışma ödeneği ve nakdi ücret desteği olarak uygulanan gelir desteği transferlerinin yoksulluk ve gelir dağılımı göstergelerine etkisini inceleyerek literatüre katkı sağlamaktadır.

Covid-19 salgının gelir dağılımı ve yoksulluk oranları üzerindeki etkilerinin analiz edilebilmesi ve fert gelirlerinin salgından nasıl etkilendiği sorusuna yanıt verilebilmesi için öncelikli olarak Türkiye'de gelir dağılımı ve yoksulluk oranlarının gelişimi incelenmiştir. Türkiye genelinde, eşdeğer hane halkı kullanılabilir reel fert gelirindeki (fert geliri) en yüksek artış 2006 yılında gerçekleşmiştir. 2001 krizinden sonraki yıllarda ekonomideki toparlanma, ekonomik büyümenin üst üste 5 yıl boyunca sürdürülmesi, düşük işsizlik ve tek haneli enflasyon oranlarının da etkisiyle 2006 yılı diğer yıllardan pozitif olarak ayrışmıştır. Ancak, sonrasında GSYİH'nın yavaşlaması ve 2008-2009 küresel krizin etkisiyle bu olumlu gidişat 2007 yılında sekteye uğramıştır. Fert geliri 2007 ve 2009 yıllarında sırasıyla yüzde 2,1 ve yüzde 1,7 oranında azalmış, 2008 yılında ise gelirlerde kayda değer bir artış yaşanmamıştır. Küresel finans krizinden sonra yüksek ekonomik büyümenin de etkisiyle fert geliri 2010-2015 döneminde artış eğilimine girmiştir. Türkiye genelinde bir ferdin ortalama reel geliri 2010 yılında yıllık 10 bin TL'den 2015 yılında 12,5 bin TL'ye yükselmiş; 2015 yılından sonra ise artış hızı düşmüştür. Darbe nedeniyle ekonominin istikrarsızlaşması ve işgücü maliyetlerinin artmasının bu yavaşlamada etkisi olmuştur. Asgari ücrette 2017 ve 2018 yıllarındaki enflasyonun altında kalan artışların, Türkiye genelindeki ortalama fert geliri artışının yüzde 1 gibi düşük bir seviyede kalmasının yansıması olarak görülmektedir. Kovid-19 pandemisinin zirve yaptığı 2020 yılında,

bireylerin ortalama yıllık reel geliri 2019'a göre yüzde 2,6 azalarak 2020 yılında yıllık ortalama reel gelir 13.368 TL olarak gerçekleşmiştir.

Ekonomik şokların yapısı, hangi gelir grubunun krizden daha fazla etkileneceği kosunda belirleyici rol oynamaktadır. 2008 yılında küresel mali kriz nedeniyle Türkiye ekonomisinin büyüme hızındaki yavaşlama ve 2009 yılında Türkiye'nin GSYİH'sındaki yüzde 4,8'lik düşüşten en çok son yüzde 20'lik kesim etkilenmiştir. 2020 yılında pandeminin yıkıcı ekonomik etkisi, Türkiye'de de hemen hemen tüm gelir gruplarında bireysel gelirin azalmasıyla kendini göstermiştir. Ortalama reel fert gelirindeki düşüşün, büyük ölçüde sonuncu yüzde 20'lik gelir grubunun ortalama fert gelirindeki azalıştan kaynaklandığı, pandemi döneminde 2019 yılına kıyasla ilk yüzde 20'lik gelir grubunun gelirinde herhangi bir kaybın olmadığı görülmektedir.

Gelir dağılımının en önemli göstergelerinden biri olan Gini katsayısı 2013 yılından 2017 yılına kadar artmış, 2018 yılında yaşanılan kur şokunun diğer gelir gruplarından ziyade daha çok üst gelir grubunu etkilemesiyle birlikte Gini katsayısı 0,395 seviyelerine kadar düşmüş ancak 2019 yılında artarak 0,410 ile tekrar 2008 yılındaki seviyesine gerilemiştir. Covid-19 pandemisinin hissedildiği 2020 yılında yüksek gelir grubundaki bireylerin yıllık ortalama reel bireysel gelirlerinin 2019 yılına göre azalması ve en düşük gelir grubundakilerin gelirlerinin sabit kalmasıyla Gini katsayısı iyileşmiştir. Eşdeğer hanehalkı kullanılabilir fert medyan gelirinin %50'si ve %60'ı dikkate alınarak belirlenen yoksulluk sınırına göre, 2005 yılında sırasıyla yüzde 18,6 ve yüzde 25,4'e ile en yüksek seviyededir. 2016 yılında en düşük seviyeye gerileyen göreli yoksulluk oranlarının bu yıldan sonraki yükseliş eğilimi 2020 yılına kadar devam etmiş ve Türkiye'de Kovid-19 vakalarının artmaya başladığı 2020 yılında göreli yoksulluk oranları 2019 yılına göre azalmıştır.

İlk bakışta ortalama reel fert gelirlerinin düşmesi ve fert gelirlerindeki azalışın önemli bir bölümünün (%57) en yüksek gelir grubunun ortalama fert reel gelirlerindeki azalıştan kaynaklanmasının Gini katsayısı ve yoksulluk oranlarına olumlu yansıdığı değerlendirilmektedir. Bunula birlikte daha detaylı ve kapsamlı bir analizle 2020 yılında hükümet desteklerinin yoksul kesimi korumada ve çalışan kesimin gelir kayıplarını telafi etmedeki başarısı incelenmektedir.

Bu çalışmada 2020 yılında miktarı ve kapsamı artan sosyal yardımların yanı sıra çalışanlara ve yoksulluk riski altındaki hanelere yönelik desteklerin gelir eşitliğini ve yoksulluğun azalmasına katkısı analiz edilmektedir. Böylelikle 2020 yılında yoksulluk ve gelir dağılımı göstergelerinde ortaya çıkan iyileşmenin hangi boyutta Kovid-19'un ekonomiye etkisini azaltmak için açıklanan "Ekonomik İstikrar Kalkanı Paketi"yle ilişkilendirilebileceği araştırılmıştır. Çalışmada, gelir desteklerinin ve doğrudan transferlerin gelir eşitsizliği üzerindeki oluşturduğu etkiyi tespit etmek amacıyla önemli eşitsizlik göstergeleri olan Gini katsayısı, Theil endeksi, P90/10 ve P80/P20 göstergelerindeki değişiklikler ele alınmıştır. Programların yoksulluk üzerindeki etkilerini ölçmek amacıyla yoksulluk oranı ve yoksulluk açığı göstergelerindeki değişiklikler incelenmiş, ayrıca Beckerman and Immervol etkinlik göstergeleri ile doğrudan transferlerin yoksulluğu azaltıcı etkinliği pandemi öncesiyle karşılaştırılmıştır. Ayrıca her bir programın progresifliğinin yanı sıra gelir eşitsizliği ve yoksulluk üzerindeki marjinal etkileri tespit edilmiştir.

Analiz sonuçlarına göre 2020 yılında çalışanlara yönelik gelir desteklerinin (kısa çalışma ödeneği ve nakdi ücret desteği) olmadığı senaryoda gelir dağılımı 0.421 olarak tahmin edilmektedir. Çalışanlara yönelik gelir desteği programlarının katkısıyla 2020 yılında Gini katsayısı 0,421'den yaklaşık 0,418'e, doğrudan transferlerin katkısıyla 0,418'den 0.401'a kadar düşmektedir. Pandemi öncesi 2019 yılında ise doğrudan transferlerin etkisiyle Gini katsayısı 0,422'den 0,410'a gerilemektedir. Bu bağlamda doğrudan transferlerin Gini katsayısını iyileştirici etkisi 2019 yılında 0.011 Gini puanken 2020 yılında bu değer 0.017 Gini puana yükselmiş, gelir destekleri de dikkate alındığında 0.02 Gini puana ulaşmıştır.

Pandemi dönemindeki gelir destekleri ve doğrudan transferlerin olmadığı senaryo altında P80/P20 göstergesi ele alındığında zengin ile yoksul arasındaki gelir farkının 2019 yılındaki 8 katlık farktan 2020 yılında 9.1 kata yükseleceği tahmin edilirken, gelir desteklerinin etkisiyle bu fark 8,96'ya düşmüştür. Doğrudan transferlerin göz önüne alındığında P80/20 göstergesi değeri 2020 yılında 8.96 kattan 7,7 kata kadar gerilemiştir. 2019 yılındaysa en zengin ile en yoksul arasındaki gelir farkı daha sınırlı bir iyileşme göstererek 8.9 kattan 8 kata düşmüştür. En yüksek ve en düşük gelir grupları arasındaki değişiklikleri baz alan P80/P20 ve P90/P10 göstergeleri, Kovid-19

nedeniyle çalışanların gelir kayıpları telafi edilmeseydi 2019 yılına göre 2020 yılında en zengin ile en yoksul arasındaki gelir farkının daha da açılacağı göstermektedir.

Orta gelir grubundaki değişikliklere karşı daha hassas olan Gini katsayısı incelendiğinde, gelir kayıplarını azaltmaya yönelik hiçbir transferin olmadığı varsayımı altıda, Kovid-19'un gelir dağılımında eşitliği bozucu etkisi daha az göze çarpmaktadır. Bu sonuçlar literatürde geçen, Kovid-19'un hanehalkı gelirleri üzerinde yarattığı tahribatın orta gelir grubundan ziyade yoksul kesim üzerindeki daha şiddetli hissedildiği savını doğrulamaktadır. Yoksulluk göstergelerinde de Kovid-19 krizinin yoksulluğu artırıcı etkisi daha açık bir şekilde fark edilmektedir.

2019 yılında yoksulluk oranı (medyan gelirin %50'si baz alınarak) doğrudan transferin etkisiyle yüzde 17,2'den yüzde 15'e gerileyerek yaklaşık 2,2 puan azalmıştır. Pandemi döneminde toplumdaki dar gelirli ve dezavantajlı grupların korunması ile istihdamda sürekliliğinin sağlanmasını amaçlayan doğrudan transferlerin ve gelir desteklerinin yokluğunda yoksulluk oranının (medyan gelirin %50'si baz alınarak) 2019 yılındaki yüzde 15 olan değerinden 2020 yılında yüzde 18,6'ya yükseleceği tahmin edilirken gelir destekleri sayesinde bu oran yaklaşık 1 puan azalarak yüzde 17,6'ya inmiş, doğrudan transferlerle birlikte 3 puan azalarak 2020 yılında yüzde 14,4'e gerilemiştir. Ekonomik faaliyetlerdeki kesintilerden dolayı fert gelirlerinde oluşan kaybın yoksulluğu ivmelendirmesinin kısmen kısa çalışma ve nakdi ücret desteğiyle önüne geçilmiş, kapsamı ve büyüklüğü artan doğrudan transferlerle yoksulluk oranında 2019 yılında göre azalış elde edilmiştir.

Doğrudan transferlerin yoksulluk oranının yanı sıra yoksulluğun derinliğini gösteren yoksulluk açığı ve yoksulluğun şiddetini ölçen yoksulluk açığının karesi endekslerinde doğrudan transferlerin etkisi 2020 yılında daha yüksek seviyelerdedir. Doğrudan transferler pandemi öncesinde yoksulluk açığını yüzde 24,8 oranında azaltırken, 2020 yılında bu iyileşme yüzde 33,3'e çıkmıştır. Ancak yoksulluk açığındaki aynı oranda azalmanın harcama miktarı birbirinden farklı transferlerle gerçekleştirebilmenin mümkün olması nedeniyle yoksulluk açığındaki azalma tek başına transfer harcamalarının etkinliğini açıklamakta yeterli görülmemektedir. Bu nedenle tranferlerin etkinliğini değerlendirmek için Beckerman'ın (1979) ortaya koyduğu ve sonrasında Immervoll et al. (2009) tarafından geliştirilen yoksulluğu azaltma etkinliği, dikey harcama etkinliği ve taşma oranı Türkiye için hesaplanmıştır.

2020 yılında doğrudan transferlerin kapsamı ve büyüklüğü artmasına rağmen transfer öncesi yoksulluk sınırının altında kalan kesime ulaşan transferlerin toplam doğrudan transferler içindeki oranının 2019 yılına göre azalması (2019 yılında dikey etkinlik oranı yüzde 39,2'den 2020 yılında yüzde 37,9'ye düşmesi) pandemi dönemindeki doğrudan transferlerin yoksulluğu azaltma etkinliğini yüzde 29,2 ile sınırlandırmıştır (2019 yılında yüzde aynı oran yüzde 27,7'dir).

Doğrudan transferlere, çalışanlara yönelik destekler ilave edildiğinde transferlerin toplam büyüklüğü artmasına rağmen yoksulluğu azaltma etkinliğinde beklenenin aksine düşüş görülmektedir. Kayıt dışı çalışan ve yoksul olan kesimin sigortalı çalışanlara yönelik tasarlanan kısa çalışma ve nakdi ücret desteğinden yararlanamaması nedeniyle gelir destekleri toplam transfer miktarını artırırken yoksul kesime ulaşan transfer miktarında artış sağlanamamıştır. Doğrudan transferlere çalışanlara yönelik desteklerin ilave edilmesine rağmen yoksul kesimin aldığı payın (dikey etkinlik yüzde 37,9'dan yüzde 27,5'e) düşmesi ve transferler sonrası artık yoksul olmayan kesimin gelirlerindeki artışın sürmesiyle transferlerin optimal dağılımındaki bozulmayı ima eden taşma oranındaki artış sonucu (çalışanlara yönelik gelir destekleriyle taşma oranı yüzde 23'ten yüzde 25'e yükseldi) toplam desteklerin yoksulluğu azaltma etkinliği yüzde 29,2'den yüzde 20,6'ya gerilemiştir.

Gelir desteklerinin ve doğrudan transferlerin gelir dağılımına etkisi program bazında incelendiğinde, Kovid-19 döneminde gelir eşitliğine en fazla katkı 0,003 Gini puan ile yaşlılık maaşı ve engelli yardımlarından gelmektedir. Pandemi döneminde yaşlılık ve engelli transferlerindeki artışın 2019 yılına göre sırasıyla yüzde 74 ve yüzde 40 oranında olması ve bu programların ön koşullarında muhtaçlık kriterinin bulunması nedeniyle gelir eşitliğine katkıları 2019 yılına göre artmıştır. Pandemi döneminde ilk kez uygulanan kısa çalışma ödeneği ve nakit destek programlarının gelir dağılımını iyileştirici etkileri sırasıyla 0,002 ve 0,001 Gini puandır.

Pandemi döneminde yoksulluğun azaltılmasında en fazla marjinal katkı kısa çalışma ödeneği ve pandemi sosyal destek programınındır. Çalışan gelirlerindeki kayıpları telafi etmek amacıyla uygulanan kısa çalışma ödeneğinin yoksulluğun azaltılmasına marjinal katkısı 0,75 yüzde puan, düşük gelirli haneleri yoksulluk riskinden korumak için uygulanan pandemi sosyal destek programının ise 0,50 yüzde puandır. Nakdi ücret

desteğinin ise yoksulluğu azaltılmasındaki marjinal katkısının 0,19 yüzde puan ile düşük bir seviyededir.

Yoksulluk üzerindeki etkisi pandemi döneminde bir önceki yıla göre en fazla artan doğrudan transfer ise hastalık yardımı olmuştur. Ferdin ücretli hastalık izninden dolayı elde etmiş olduğu sosyal yardım niteğindeki gelir SILC mikro veri sonuçlarına göre 2019 yılındaki cari fiyatlarla yaklaşık 532 bin TL olan değerinden 2020 yılında 5,7 milyar TL'ye çıkarak yaklaşık 10 kattan fazla artmıştır. Harcamadaki artıştan kaynaklı hastalık yardımının yoksulluğun azaltılmasındaki marjinal katkısı 2019 yılındaki 0,01 yüzde puanlık değerinden, 2020 yılında 0,21 yüzde puana yükselmiştir. Pandemi döneminde işten çıkarmaların önlenmesine ilişkin kararın etkisiyle işsizlik transferinin toplam büyüklüğünde önemli bir artış (2019 yılına göre yüzde 3) olmamıştır. İşsizlik transferinin yoksulluğun azaltılmasına marjinal katkısı 2020 yılında ancak 0,46 yüzde puan ile 2019 yılındaki 0.40 yüzde puan değerinden belirgin bir farklılaşma göstermemiştir. Programın harcama büyüklüğü ve artış oranı kadar yoksul yanlısı olması da önemlidir. İşsizlik transferinin harcama büyüklüğü Pandemi sosyal destek programının yaklaşık 2 katı olmasına rağmen işsizlik transferinin yoksulluğun azaltılmasına marjinal katkısı, yoksul yanlısı tasarlanan Pandemi sosyal destek programının çok gerisindedir.

Türkiye'de 2020 yılında transfer politikalarının yanı sıra vergi politikalarında da düzenlemeler olmuştur. Çalışmada veri kısıtına bağlı olarak Kovid-19 salgını kapsamında maliye politikalarının gelir eşitsizliği ve yoksulluk üzerindeki etkileri incelenememiştir. Bu kapsamda, ileriki çalışmalarda mali müdahalelerin yayılma etkileri, davranışsal etkileri ve dışsallıklarının dahil olduğu daha kapsamlı analizler yapılabilir.

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