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DISCUSSION PAPER SERIES

IZA DP No. 17890

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Zeynep Gizem Can
University of Galway and Adana Alparslan Türkeş Science & Technology University

Cathal O'Donoghue
University of Galway and IZA

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IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

The Poverty Effectiveness of Social Security Benefits in Türkiye

This study aims to analyze the effectiveness of the social security system and transfer expenditures in Türkiye in combating poverty. Social security systems aim to reduce the effects of poverty by ensuring that individuals meet their basic needs. Transfer expenditures in Türkiye, while providing temporary support especially for disadvantaged groups, carry the risk of creating dependency relations in the long term. While the short-term effects of transfer expenditures are frequently addressed in the literature, studies on their role in combating structural poverty are limited. This study evaluates the effects of transfer expenditures on the capacity of individuals to create sustainable welfare. The case of Türkiye is important due to the institutional transformation of social security policies and the politicization of aid in recent years. The study analyzes the effectiveness of social transfers at the regional level using the data analysis method. Thus, the structural effects of social policies in reducing poverty are investigated and policy recommendations for more comprehensive, long-term strategies are presented. The findings aim to produce generalizable inferences for similar developing countries based on the case of Türkiye.

JEL Classification: I32, I38

Keywords: social security, social transfers, poverty, data analysis

Corresponding author:
Cathal O'Donoghue
University of Galway
University Rd
Galway
Ireland

E-mail: cathal.odonoghue@nuigalway.ie

The Poverty Effectiveness of Social Security Benefits in Türkiye

1. Introduction

As a critical tool in the fight against poverty, the social security system aims to provide social protection that enables individuals to meet basic needs such as health, education, and unemployment support. In Türkiye, the social safety net aims to protect the most vulnerable segments of society by offering various forms of support, particularly targeting the unemployed, disabled, elderly, and low-income groups. Complementing the social security system, transfer expenditures constitute another important mechanism in Türkiye's anti-poverty strategy. These expenditures include direct cash transfers, food assistance, housing support, and minimum income programs provided through various state-led social assistance schemes. Such measures aim to offer temporary financial relief to the most disadvantaged, particularly during periods of high poverty. However, the impact of these interventions is often short-term and may fall short in addressing the structural causes of poverty. Moreover, in the long run, these supports may foster dependency, limiting individuals' economic autonomy and potentially deepening social inequalities. Therefore, evaluating the effectiveness of transfer expenditures requires examining not only their immediate benefits but also their long-term impacts on poverty. Building directly on existing research on the poverty impact of social security in Southern Europe (Matsaganis et al., 2006, 2007), we undertake a parallel and related exercise in Türkiye.

Welfare reform is poised to remain a central topic of policy debate in the early decades of the 21st century, primarily because it intersects with the larger issue of how to sustain the European social model amid significant economic and societal shifts. Although discussions tend to concentrate on pensions and other major components of social protection, social assistance often receives less attention. Yet, the same pressures prompting broader welfare changes are also elevating the role of social assistance within welfare systems (Atkinson, 1998). The stable foundations of the post-war era—often referred to as the "golden age of welfare capitalism"—are no longer dependable. The decline of "Fordism" and the emergence of a "new economy" have substantially altered the labor market assumptions that underpin welfare institutions. Secure, long-term employment with a single employer has given way to increased job insecurity, more frequent employment transitions, unemployment spells, and the growth of precarious work. These labor market developments have eroded the basis of the traditional "male breadwinner model," a trend that is compounded by shifting family dynamics. Rising ages at marriage, lower birth rates, the normalization of cohabitation without marriage, and other changes have challenged the conventional notion of a male provider and a homemaking spouse (Esping-Andersen, 1996; 1999).

In the context of Türkiye, the relationship between social policy and poverty has been a long-debated issue. Buğra and Keyder (2006) argue that social assistance in Türkiye tends to generate political dependency rather than resolving structural poverty. Social protection measures implemented during crisis periods in Türkiye have had positive effects, especially on vulnerable groups. However, most of the existing literature focuses on the short-term effects of social assistance, with insufficient discussion of their long-term implications. Studies like that of Nolan et al. (1999) examine the effects of social security transfers on the unemployed and their effectiveness in reducing income poverty, yet gaps remain concerning the long-term effects of social policies in Türkiye.

In other countries, the relationship between social policy and poverty is explored from a broader perspective. Esping-Andersen (1990), for example, examines social policies through the framework of welfare state regimes, emphasizing their impact on market dependency and inequality. Moene and Wallerstein (2001) discuss how political support for welfare policies may be weaker in less egalitarian societies, using the social transfer model to investigate this issue. Dercon et al. (2008) underline the importance of expanding insurance services to protect the poor but caution against viewing them as a cure-all solution. Studies in Asian countries also show that social protection policies can be effective, similar to comprehensive welfare state models (Barrientos, 2011; Wagle, 2017) Fiszbein et al. (2014) emphasize the role of social protection as a crucial tool in the global fight against poverty and inequality, offering comparative insights across diverse social policy experiences. These studies provide important perspectives for understanding the long-term effects of social policies and highlight both similarities and differences in their implementation across regions.

This study aims to evaluates the capacity of social security policies to reduce poverty in Türkiye. Türkiye is selected as the case study due to the significant expansion of social policies in the post-2000 period, the politicization of social assistance, and the transformation of its institutional framework. Moreover, Türkiye's socioeconomic dynamics—including large income inequalities, regional development disparities, and rapid urbanization—make it an appropriate setting to observe the outcomes of social policy implementation.

In this context, the central research questions are as follows: Have the social policies implemented in Türkiye in the 21st century been effective in reducing poverty? Do these policies support long-term welfare improvement, or do they contribute to the reproduction of poverty by fostering dependency? If the latter is the case, how can this risk be managed, and how can a more inclusive social policy architecture be built? This study addresses these questions both theoretically and empirically.

The following section provides an overview of the development of the social security system in Türkiye. Section 3 discusses transfer expenditures within Türkiye's Social Security System. Section 4 explains the microsimulation methodology used in this study. Section 5 addresses the scale of demand for social transfers in these countries and analyzes the impact of social assistance on poverty reduction. Section 6 concludes the stud

2. Literature Review: the Evolution of the Turkish Social Security System

The evolution of the Turkish welfare state, particularly its social security system, reflects broader socio-political and economic shifts, encompassing periods of state-led modernization, populist expansion, neoliberal restructuring, and Islamic-conservative reorientation. Social security, comprising health insurance, pensions, and unemployment benefits, has been central to the organization of Türkiye's welfare provision. The development of Türkiye's social security system has proceeded unevenly, shaped by both internal class and institutional dynamics as well as external imperatives of global economic integration and policy transfer. This literature review traces the historical trajectory and structural transformation of Türkiye's social security system, emphasizing scholarly debates around its expansion, reform, and commodification.

Early Development and the Statist Phase

The foundations of Türkiye's modern social security institutions were laid during the early Republican period, drawing heavily on European models, particularly those of Bismarckian inspiration (Buğra, 2007). Social insurance for workers began with the Law on Occupational Accidents, Diseases and Maternity Insurance in 1945, and expanded with the establishment of the Social Insurance Institution (Sosyal Sigortalar Kurumu, or SSK) in 1946, targeting industrial workers (Buğra and Keyder, 2006). These schemes were contributory and occupation-based, reflecting the labor-market-centered nature of Türkiye's early welfare model. However, social protection remained limited in coverage, excluding large rural and informal sectors.

This period, often referred to as the "statist phase," saw social security as an instrument of industrialization and nation-building. Services were organized around formal employment, with little attempt to create universalist welfare institutions (Ecevit, 2010). The fragmented structure of the system, divided among multiple schemes for public employees (Emekli Sandığı), self-employed (Bağ-Kur), and private-sector workers (SSK), created significant disparities in benefits and access (Buğra and Keyder, 2006).

Populist Expansion and Institutional Fragmentation

The post-1960s period witnessed an expansion of social security coverage driven by the rise of populist politics and import substitution industrialization. Political parties increasingly used social policy to mobilize electoral support, leading to generous but fiscally unsustainable pension and health entitlements, especially in the 1970s and 1980s (Buğra and Candas, 2011). This populist phase resulted in the rapid growth of the pension system and broader inclusion of rural and informal groups, albeit often through politically motivated rather than actuarially sound means.

Coverage grew in terms of enrolment, but the system remained fragmented and inefficient. By the 1980s, there were over 30 different types of pension schemes with varying rules, eligibility criteria, and benefit levels (Özdemir, 2010). The lack of coordination and cross-subsidization created perverse incentives and mounting deficits, with pension spending exceeding 10% of GDP by the early 2000s (Ercan, 2009).

Neoliberal Restructuring and Social Security Reform

The 1980 military coup and the subsequent adoption of neoliberal economic policies marked a significant turning point. While privatization and deregulation dominated the economic agenda, social security remained largely unreformed until the early 2000s. However, by this time, the fiscal crisis of the state, pressures from international financial institutions (notably the IMF and World Bank), and the evident unsustainability of existing arrangements made reform imperative.

A major wave of reform culminated in the 2006 Social Security and General Health Insurance Law, which unified the three major social insurance institutions (SSK, Bağ-Kur, and Emekli Sandığı) under a single administrative body: the Social Security Institution (Sosyal Güvenlik Kurumu, SGK). The reform aimed to simplify administration, reduce deficits, and improve efficiency, while introducing a General Health Insurance (GHI) scheme designed to universalize health coverage (Ecevit, 2010).

Scholars have viewed this reform through different lenses. For Buğra and Keyder (2006), it represented a shift toward a more commodified and market-oriented welfare state, consistent with global neoliberal trends. Similarly, Candaş and Dedeoğlu (2010) argue that the reform redefined social rights as conditional entitlements, reducing the role of the state in direct provision. Yörük (2012), however, notes that while the reforms enhanced formal coverage, they also introduced exclusionary mechanisms by linking access to contribution histories, thereby reinforcing labour market inequalities.

AKP Era: Targeted Assistance and Dual Transformation

The rise of the Justice and Development Party (AKP) in 2002 brought new dynamics to social policy, including social security. Initially continuing the neoliberal reform agenda under IMF supervision, the AKP government embraced social assistance as a key governance strategy, particularly after exiting the IMF program in 2008. The AKP's approach to social security has been characterized by two interrelated features: the consolidation of contributory systems and the expansion of non-contributory, targeted assistance (Buğra and Candas, 2011).

The pension system, while unified, underwent further parametric reforms that increased the retirement age, reduced replacement rates, and tightened eligibility in line with fiscal sustainability goals (Ercan, 2009). These reforms were criticized for undermining adequacy and equity, especially for low-income and informal workers (Candaş and Dedeoğlu, 2010).

Concurrently, the AKP developed an expansive network of social assistance programs—including conditional cash transfers, housing subsidies, and food aid—often distributed through local municipalities and foundations. Scholars argue that this targeted model created a parallel, politically mediated system of welfare provision that blurred the boundaries between clientelism and entitlement (Yörük, 2012). While these programs helped reduce extreme poverty, they did not address structural inequality or the precariousness of informal employment.

This dual transformation—of commodified social insurance and politically mediated social assistance—has led some scholars to question the applicability of traditional welfare regime typologies. Rather than fitting neatly into Esping-Andersen's (1990) models, Türkiye's social security system exhibits hybrid features: a Bismarckian core for formal workers, residual assistance for the poor, and selective universalism in health (Buğra and Keyder, 2006).

Southern Welfare State model

The literature on welfare regimes has expanded the traditional Southern European model (Ferrera, 1996, 2001; Rhodes, 199) to include additional Mediterranean countries such as Cyprus, Israel, Malta, and Türkiye, alongside Greece, Italy, Portugal, and Spain (Gal, 2010). These countries share certain structural and cultural characteristics that distinguish their welfare systems from both the conservative and liberal models. Common features include the dominance of family and religious institutions in welfare provision, low levels of social expenditure, weak public assistance programs, and limited female participation in the labor market. Political clientelism also plays a significant role in the allocation of welfare resources (Gal, 2010).

Türkiye's welfare regime, in particular, mirrors many of these characteristics, notably the fragmented structure of social security and the reliance on the male breadwinner model. This reflects a Bismarckian legacy shaped by informality and occupational segmentation, leading to inequality in social citizenship and access to benefits (Buğra & Candas, 2011).

Karamessini (2007) identifies key traits of the Southern European model—such as labor market segmentation, high male employment protection, and patronage in welfare distribution—which also apply to the Turkish context. Recent reforms in Türkiye suggest a convergence with

Southern European trends. The implementation of universal health coverage for all citizens under 18 marks a significant shift toward recognizing social rights beyond family responsibility (Grütjen, 2007). Furthermore, policy changes under the AKP government have aligned with the Mediterranean model by increasing the roles of markets, local authorities, and civil society in welfare provision (Grütjen, 2007).

3. Social Security Benefits in Türkiye

Türkiye's Social Security System is a comprehensive structure that provides protection against social risks for employed citizens and foreign workers in the country. The system is primarily based on the Bismarck Model, which involves pooling contributions deducted from individuals' income during their working life, along with employer contributions. The benefits provided against risks such as retirement, illness, and work accidents are determined based on individuals' previous income levels and the contributions they have paid. The system is based on registered employment and is shaped by strict labor market rules and collective bargaining mechanisms. However, Türkiye's social security system has not been limited to the Bismarck Model and has also contained certain structural challenges characteristic of the Mediterranean Model (Özmen, 2017). Since the 1990s, early retirement policies, high informal employment rates, low premium collection ratios, and insufficient income replacement have disrupted the system's financial balance. Additionally, the provision of services by multiple institutions has created inconsistencies in rights and obligations. The aging population has further deepened these problems.

Türkiye's social security system has developed within a fragmented, corporatist structure that prioritizes formally employed individuals while largely excluding informal workers. Although Türkiye's public social spending surpasses that of some more economically advanced countries like Mexico and Korea, it remains significantly lower than in wealthier OECD nations. This discrepancy reflects a dualistic welfare regime, where formal sector workers benefit from structured protections while others rely on informal networks, such as kinship and clientelism, for support (Buğra & Adar, 2008).

This corporatist model, composed of institutions like the Social Insurance Institution (SSK), the Retirement Fund (ES), and Bag-Kur for the self-employed, became increasingly unsustainable due to demographic imbalances, mismanagement of funds, and the rising pressures of market-oriented reforms post-1980. Fiscal deficits and changes in labor and family structures weakened informal support mechanisms, prompting demands for comprehensive reform (Kılıç, 2008).

The 2006 Social Insurances and General Health Insurance Law (No. 5489) sought to unify these fragmented schemes to increase efficiency and standardize entitlements across groups. However, the reform encountered strong opposition, particularly over perceived reductions in acquired rights, and was partially annulled by the Constitutional Court, especially regarding civil servants' entitlements (Kılıç, 2008).

Retirement policies also reflected shifting social values. Initially, women benefited from earlier retirement ages based on caregiving roles. However, reforms aimed to equalize retirement ages by 2048, citing increased life expectancy, especially for women, as justification (Ministry of Labour and Social Security, 2004; Kılıç, 2008).

While these reforms signal a move toward more equitable and efficient systems, they also reflect a growing reliance on market mechanisms and a diminished role for the state. As a result, the capacity of the welfare state to ensure comprehensive social inclusion remains limited (Buğra & Adar, 2008; Kılıç, 2008b).Challenges and Future Prospects

Despite formal coverage expansion under GHI, significant challenges remain. The persistence of informality—over 30% of the labor force—undermines the sustainability and inclusiveness of social insurance (OECD, 2020). Moreover, the COVID-19 pandemic revealed the limits of contribution-based systems, as many workers lacked access to unemployment or sickness benefits (ILO, 2021). The continued reliance on targeted assistance, without strengthening universal mechanisms, risks entrenching inequality and social stratification.

The literature also highlights a political dimension to social security provision. AKP's use of welfare as a tool for electoral mobilization has created a system that is responsive to short-term political imperatives rather than long-term social investment (Yörük, 2012). Meanwhile, the erosion of labor rights and the weakening of trade unions further constrain the redistributive potential of social security.

Recent policy discussions have focused on expanding universal basic income, digitizing benefit delivery, and integrating refugees into social insurance schemes. However, without addressing the structural issues of labor market segmentation, regressive financing, and political clientelism, such reforms may have limited impact.

To address these issues, Law No. 5510 on Social Insurance and General Health Insurance was enacted in 2008. This reform unified social security institutions under a single roof, increasing equality and accessibility in services. The main goal was to establish a social security system that is fair, accessible, financially sustainable, and more effective in combating poverty. This reform brought Türkiye's social security system closer to international standards and strengthened its long-term resilience.

In Türkiye, transfer expenditures are considered financial supports directed to various economic actors, unemployed individuals, and low-income groups (Ceylan, 2020). These expenditures constitute part of the social security system's costs (Cural, 2016). Reducing poverty is one of the main objectives of the welfare state. In countries where the functions of the welfare state are strongly emphasized, transfer expenditures are considered a key and effective component of redistributive policies aimed at improving income distribution (Lorz, 2004: 205-206). Below are the transfer expenditure categories used to describe disposable income in the 2022 Household Budget Survey, along with brief explanations:

- Retirement Pension: Paid to retirees through the social security system, based on contribution payments made during their working life.
- Old Age Pension: Income support from old age insurance provided for individuals after retirement.
- Housing: Housing support provided for family members to meet shelter needs.
- Scholarship: Financial support provided to students to help them continue their education.
- Disability/Invalidity: Income support for disabled or invalid individuals, particularly those with reduced working capacity.
- Illness: Temporary income support provided to individuals unable to work due to illness.
- Widow/Orphan: Social assistance provided to orphans and widowed individuals.
- Unemployment: Temporary financial assistance provided to unemployed individuals until they rejoin the labour force.

- Severance Pay: Compensation received by employees upon dismissal or voluntary separation.
- Agricultural Subsidies: State support programs for farmers to encourage agricultural production.
- Other: General income supports provided by the government.

4. Data and Methodology

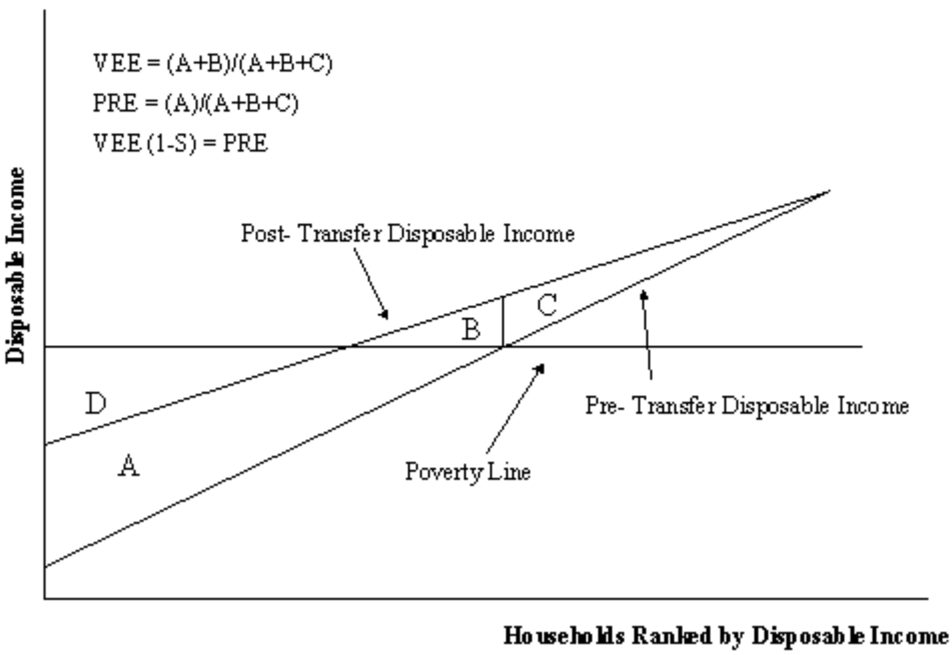
Data

This analysis draws on up-to-date and credible data from Türkiye's 2022 Household Budget Survey. Consistent in structure with previous iterations, the survey offers in-depth information on multiple dimensions of household economics. It includes detailed data on spending patterns, household structure, demographic and socio-economic profiles of household members, and levels of disposable income. Notably, the survey provides a comprehensive breakdown of social security benefits in Türkiye. The dataset comprises responses from 11,922 households, encompassing a total of 39,188 individuals.

Methodology

The objective of poverty measures is to quantify the size and extent of poverty. However in policy analyses we wish to assess the effectiveness of a policy or policy change in reducing poverty.

Figure I.1. The Efficiency of Social Transfers



Source: Beckerman (1979)

Beckerman (1979) proposed target efficiency and poverty reduction effectiveness indicators. Figure 1 describes the impact of transfers on disposable income, reporting pre and post transfer income. A number of indicators can be produced on the basis of this figure:

- The first measure is Vertical Expenditure Efficiency (VEE), meaning the share of total expenditure going to households who are poor before the transfer and is equal to the area (A + B)/(A + B +C).
- The next indicator of Poverty Reduction Efficiency (PRE) is the fraction of total expenditure allowing poor households to reach the poverty line without overcoming it and is defined as the area (A)/(A + B +C).
- The Spillover index (S) is a measure of the excess of expenditure with respect to the amount strictly necessary to reach the poverty line, (B)/(A + B). Combining it can be seen that VEE (1 - S) = PRE.

However, these metrics alone are not adequate to assess the effectiveness of a transfer system in alleviating poverty. A program may be highly effective in targeting low-income individuals, yet if the allocated resources are insufficient, it may fail to bring about a meaningful improvement in the beneficiaries' living standards. The Poverty Gap Efficiency (PGE) defined as (A) / (A + D) measures how effective a cash benefit is in filling the poverty gap.

5. Results

In this section, we consider the demand for social security benefits. Table 2 highlights the demand for social security benefits in the Türkiye in 2022. The table describes the average expenditure as a percentage of total household disposable income. We notice that, of all the benefits considered, retirement pensions have the highest share accounting for 16.6% of disposable income or 79% of all transfers, followed by survivor benefits at 12.6% of all transfers. The remaining transfers account for less than 10% of the total. Expenditure on contributory pensions dwarfs the expenditure on social assistance in the Türkiye; typical of the Conservative/Mediterranean type of Welfare State (Ferrera, 1996). Reflecting the focus on retirement pensions and survivor pensions in Türkiye, the benefit share of disposable income is highest for the over 60's at 60 % (table 2).

Table 1. Demand for Social Security Benefits

Instrument	% of total disposable income
Retirement Pension	0.166
Old Age Pension	0.004
Survivor's Benefits	0.027
Disability Benefits	0.005
Sickness Benefits	0.00020
Unemployment Benefits	0.00060
Education Scholarships	0.00137
Agricultural Support	0.00288
Child Benefits	0.00079
Housing benefits	0.00143
Social assistance	0.002
Total	0.212

Source: Türkiye HBS 2022.

Table 2. Demand for Social Security Benefits by Age Group (as a percentage of total disposable income)

Age Group	Total
20	0.134
30	0.088
40	0.102
50	0.305
60	0.515
70	0.634
80	0.609
Total	0.212

Source: Türkiye HBS 2022.

Poverty Headcount rate and Poverty Gap

Although not the sole objective, with for example a focus on income smoothing for pensions (Barr, 2020), one of the primary objectives of social security benefits is poverty alleviation. Before measuring the impact of social security benefits on poverty, we need to examine the differential extent of poverty for different benefits. By the extent of poverty, we measure the proportion of people in poverty, while we use the poverty gap or the average amount by which individuals that fall into poverty as our measure of the depth of poverty. Table 4 describes the degree of poverty for the benefits examined. As is quite standard in poverty comparisons of this nature we use a relative poverty measure. Our poverty line is based on median equivalised disposable income, as it is more robust than mean income, which is quite sensitive to high-income outliers in the data.[1] Given that poverty outcomes can vary significantly depending on the chosen poverty threshold, we adopt three distinct benchmarks in our analysis: our primary measure at 60% of the median income, complemented by alternative thresholds set at 70% and 50% of the median.

Table 3. Measuring the Extent and Depth of Poverty

	% of Median		
Poverty Line	50	60	70
Poverty Headcount	0.126	0.191	0.264
Poverty Gap	0.039	0.058	0.083
Poverty Line by Age Group			
Age Group	% of Median		
Poverty Line	50	60	70
20	0.120	0.180	0.242
30	0.128	0.193	0.266
40	0.124	0.183	0.253
50	0.100	0.148	0.210
60	0.117	0.190	0.268
70	0.155	0.248	0.369
80	0.209	0.341	0.443
Total	0.126	0.191	0.264

Source: Türkiye HBS 2022.

Notes: (1) Poverty Gap is as a percentage of the poverty line. (2) Poverty Headcount as a percentage of total population. (3) Poverty Line in terms of Median Equivalised Disposable Income. (4) Equivalence Scale, square root of household size).

[1] The equivalence scale used is the square root of the number of people in the household

Table 4 describes the extend and depth of poverty in Turkiye in terms of three poverty lines and decomposed by age group. Taking the 60% of median poverty line as out starting point. Turkiye has a poverty rate of 19.1% and a poverty gap of 5.8% of the poverty line. The poverty headcount is similar to other Southern European Welfare states, Greece, Italy, Portugal and Spain, but lower than France, which has more of a Central European welfare regime (Matsaganis et al., 2006, 2007). Turning to the 50% line, we see that of those below the poverty line about a third are between the 50% and 60% similar to the former set of Southern countries in Matsaganis et al.. This confirms the finding of the poverty gap where the poor are likely to have incomes much lower. There is a similar percentage of households between the 60% and 70% poverty lines. The poverty gap tells a similar story.

Decomposing the poverty rate by age, we find that poverty rate increases with age, reflecting labour market attachment and the structure of the transfer system. In addition to the higher poverty rate amongst older age groups, there is also a greater concentration in the 50-60 poverty line range amongst older persons.

Poverty Impact of Social Security Instruments

We now shift our focus to evaluating the effectiveness of current public policies in reducing poverty. To do so, we explore how both the incidence and severity of poverty would change in the absence of social benefits. While it is evident that individuals would adjust their behaviour to cope in a world without such support, this analysis abstracts from those potential behavioural responses. Instead, it assesses the role of social transfers in alleviating poverty based on the current distribution of market incomes.

Table 4. Public Policy and Poverty (Poverty in Absence of Benefits)

	Poverty Headcount	Poverty Gap
Pension	0.327	0.181
Old Age Pension	0.196	0.066
Survivor's Benefits	0.222	0.086
Disability Benefits	0.197	0.062
Sickness Benefits	0.191	0.059
Unemployment Benefits	0.192	0.059
Education Scholarships	0.192	0.059
Agricultural Support	0.192	0.096
Child Benefits	0.192	0.096
Housing benefits	0.191	0.095
Social assistance	0.194	0.098
Total	0.396	0.265

Source: Türkiye HBS 2022.

Notes: (1) Poverty Gap is as a percentage of the poverty line. (2) Poverty Headcount as a percentage of total population. (3) Poverty Line in terms of Median Equivalised Disposable Income. (4) Equivalence Scale, square root of household size).

Table 4 presents the incidence (poverty rate) and intensity (poverty gap) of poverty, using a threshold set at 60% of the median income. It includes both the baseline scenario detailed in Table 3 and the isolated impact of social security benefits. The poverty gap is calculated as the average shortfall from the poverty line, expressed as a percentage of the overall average disposable income—measured across the entire population, not just those classified as poor.

In the case of no benefits, we see that both poverty rate and the poverty gap increase without transfers. In total, the poverty headcount rate would increase to 39.6% when measured at the 60% of median income poverty line, more than doubling, while the poverty gap would increase to 26.5%. Reflecting the difference of importance of benefits, most of this is driven by retirement and survivor pensions. Again reflecting the nature of these instruments, the poverty headcount rate and gap would increase the most for older people, with the poverty headcount rate exceeding two thirds for all age groups over 60 and in fact over 80% for the over 80's. Comparing with younger age groups, the impact on the poverty gap is proportionally higher than the poverty headcount rate.

Distribution of Benefit Expenditure

In this section, we examine the efficiency of social security benefits as an anti-poverty instrument in the different countries. To do this we firstly investigate the distribution of public expenditure on benefits across the income distribution. Table 6 describes the distribution of expenditure on both social security benefits by equivalised disposable income decile. The columns report the share of the instrument relative to disposable income for each decile. Overall social security benefits are more closely targeted at the bottom of the distribution. Meanwhile other benefits, highlighting their income replacement rather than anti-poverty function, are targeted at the top of the distribution.

Benefits can be grouped into three components:

- Little difference between the top and bottom of the distribution or skewed towards the top, with a 90:10 ratio of 1 or more
- Moderately targeted at the bottom of the distribution, with a 90:10 ratio of 0.25-1
- Strongly skewed towards the bottom of the distribution, with a 90:10 ratio of less than 0.25

Retirement pensions and housing benefits are in the first group, with the former exhibiting little difference between the top of the distribution and the bottom of the distribution, with the instrument in fact most concentrated at the middle of the distribution. Although relatively unimportant, housing benefits are strongly skewed towards the top of the distribution.

Survivor benefits are the most important instrument in the middle group, although relatively skewed towards the bottom, reflecting lower other income sources of survivor's, mainly women. Education scholarships, except for the top decile is decreasing with earnings, reflecting a combination or means testing for lower deciles and higher participation in education for the top decile. Except for the bottom decile, which has a higher share, there is not much variation across other deciles for Agricultural supports.

The remaining instruments are all relatively unimportant in terms of budget share and are heavily skewed towards the bottom of the distribution reflecting their means tested nature and/or the association with the risk category such as disability or unemployment with income.

Table 5. Distribution of Benefit Expenditure

Equivalent Disposable Income Decile	Pension	Old Age Pension	Survivor's Benefits	Disability Benefits	Sickness Benefits	Unemployment Benefits	Education Scholar.	Agricultural Support	Child Benefits	Housing benefits	Social assistance	Total
1	0.124	0.077	0.057	0.033	0.0019	0.0050	0.0031	0.0084	0.0140	0.0005	0.0402	0.365
2	0.196	0.029	0.079	0.010	0.0000	0.0017	0.0011	0.0020	0.0065	0.0008	0.0152	0.342
3	0.206	0.013	0.100	0.010	0.0005	0.0028	0.0013	0.0014	0.0026	0.0014	0.0089	0.348
4	0.223	0.007	0.069	0.007	0.0001	0.0011	0.0012	0.0025	0.0012	0.0024	0.0054	0.320
5	0.183	0.003	0.058	0.005	0.0005	0.0007	0.0005	0.0021	0.0015	0.0011	0.0021	0.258
6	0.188	0.002	0.045	0.006	0.0003	0.0006	0.0009	0.0022	0.0007	0.0022	0.0019	0.249
7	0.215	0.001	0.032	0.003	0.0002	0.0005	0.0005	0.0016	0.0004	0.0027	0.0008	0.257
8	0.178	0.001	0.033	0.003	0.0002	0.0005	0.0003	0.0021	0.0002	0.0020	0.0003	0.221
9	0.134	0.001	0.024	0.002	0.0005	0.0005	0.0003	0.0021	0.0000	0.0009	0.0003	0.166
10	0.137	0.000	0.015	0.001	0.0000	0.0001	0.0021	0.0030	0.0000	0.0013	0.0000	0.160
Total	0.166	0.004	0.035	0.004	0.0002	0.0006	0.0011	0.0025	0.0009	0.0016	0.0024	0.219
90:10 ratio	1.11	0.00	0.26	0.04	0.01	0.01	0.66	0.36	0.00	2.52	0.00	0.44

Source: Türkiye HBS 2022.

Notes: (1) Deciles in terms of Median Equivalised Disposable Income (2) Equivalence Scale, square root of household size.

Poverty Efficiency

A clearer and more detailed assessment of how effectively social transfers mitigate poverty is offered in Table 6, which reports standard indicators of targeting efficiency and poverty reduction performance, as established by Weisbrod (1970) and Beckerman (1979), for each of the previously discussed schemes. Figure 1, adapted from Beckerman, illustrates the influence of transfers on disposable income. The indicators used to evaluate the targeting performance of social security benefits are derived from this framework.

- Vertical Expenditure Efficiency (VEE), - share of total expenditure going to households who are poor before the transfer: *(A + B)/(A + B +C)* from figure 1.
- Poverty Reduction Efficiency (PRE) - share of total expenditure allowing poor households to reach the poverty line without overcoming it: *(A)/(A + B +C)*.
- The Spillover index (S) is a measure of the excess of expenditure with respect to the amount strictly necessary to reach the poverty line: *(B)/(A + B)* or VEE (1 - S) = PRE.

In reality, the three previously discussed measures are not sufficient on their own to fully assess the effectiveness of a transfer system in combating poverty. A program might be highly accurate in targeting low-income groups, but if the benefit levels are too modest, it may not substantially improve recipients' living standards. Therefore, an additional metric is needed, Poverty Gap Efficiency (PGE), which evaluates how effectively a cash transfer reduces the total poverty gap. This is expressed as the ratio A / (A + D), where A represents the reduction in the poverty gap due to transfers, and D is the remaining gap. This indicator compares the capacity of different policy tools to close the poverty gap, which is calculated based on pre-transfer disposable equivalent income, using a poverty threshold set at 60% of the post-transfer median disposable equivalent income.

Table 6. Poverty Efficiency of Social Security Benefits

	VEE	PRE	PGE	S
Pension	0.610	0.269	0.389	0.560
Old Age Pension	0.801	0.693	0.048	0.135
Survivor's Benefits	0.580	0.369	0.148	0.365
Disability Benefits	0.582	0.378	0.024	0.351
Sickness Benefits	0.239	0.167	0.001	0.304
Unemployment Benefits	0.494	0.303	0.003	0.386
Education Scholarships	0.159	0.116	0.002	0.269
Agricultural Support	0.178	0.103	0.007	0.425
Child Benefits	0.701	0.586	0.009	0.164
Housing benefits	0.466	0.345	0.000	0.260
Social assistance	0.694	0.586	0.025	0.155
Total	0.657	0.329	0.541	0.499

Source: Türkiye HBS 2022.

Notes (1) VEE - Vertical Expenditure Efficiency, (2) PRE - Poverty Reduction Efficiency, (3) S - Spillover Index, (4) PGE - Poverty Gap Efficiency.

Table 7 reports the poverty efficiency for the different instruments. Reflecting the distributional characteristics of the benefits in table 6, the instruments with the highest vertical equity efficiency or targeting are Old Age Pension, Child Benefits and Social Assistance Benefits with 69% or higher going to those that would be below the poverty line without the transfer.

Consistent with the targeted nature of these instruments, the Spillover Index is low at 16% or less.

Grouped around a VEE of 60% are the mains social insurance instruments, Retirement Pensions, Disability Benefits, and Survivor's Benefits. The Spillover Index is highest for the Retirement Pension, with 56% percent of the transfer going to the poor, bringing them above the poverty line, while for the other two about 35% brings people above the poverty line. This relates to the lower replacement rate of the latter two. Slightly less targeted at poor households are Unemployment Benefits and Housing Benefits, with the former consistent with the existence of working people within the households of unemployed people. The Spillover Index is similar to the other social insurance benefits

The remaining benefits have a low VEE of less than 25%, with most of these instruments targeted at those who are already above the poverty line including Agricultural Supports and Education Scholarships. Working age sickness benefits are similar to unemployment benefits being dependent upon work attachment of relatively short duration and so can be combined with work income during the same year and by other members of the household.

Overall, the effectiveness of targeting is relatively weak. When examining the share of benefits that lift recipients up to, but not beyond, the poverty line, we find that, aside from the most precisely targeted program, the Post-Transfer Reduction Efficiency (PRE) remains below 40%. For the full set of benefits combined, it falls below 33%. This implies that more than two-thirds of total transfer resources are either allocated to individuals who were already above the poverty threshold prior to receiving benefits or to those who are lifted entirely out of poverty by the transfers.

Most instruments are social insurance based and so require a work connection and indeed a formal sector work connection for eligibility. This means that individually, they may have other sources of income or other members of their household may have other sources of income. Also given the relative importance as an income source of Retirement Pensions and Survivor Pensions and the high Spillover Index, these incomes bring people above the poverty line.

This limited poverty efficiency can be partly explained by the fact that income tested instruments are administered, often to smaller units within a larger household. For instance, elderly individuals may qualify for old-age means tested beenfits even if they reside with wealthier family members. Another contributing factor is the temporary nature of certain benefits, such as unemployment benefits, which may only be received during part of the year. Individuals like seasonal workers or those in receipt of short term sickness benefits might receive earnings for part of the year and benefits during periods of unemployment. In these cases, it is possible for households that are relatively better off over the full year to receive assistance during certain months (Matsaganis et al., 2006, 2007).

When we consider the capacity of instruments to reduce the poverty gap, there is little relationship with the degree of targeting. Retirement Pensions and Survivor Pensions have by far the highest Poverty Gap Efficiency at respectively 39% and 15%. The other instruments, regardless of their targeting have minimal impact on the poverty gap due to the scale of expenditure on them.

To sum up the evidence provided by these indicators, it seems fair to say that the target efficiency of social security benefits is low, so there would be room to redirect public assistance expenditures towards the truly poor, without violating the currently tight budget constraints.

Given the vast amount of resources not targeted to the poor, this share could be significantly increased, with better means-testing criteria, without the need of additional funds.

6. Discussion and Conclusions

This study aimed to empirically evaluate the poverty-reducing impact of social security benefits in Türkiye. The findings reveal a dual picture: social transfers—especially contributory pensions and survivor benefits—play a significant role in reducing poverty, but the effectiveness varies across population groups and types of transfers. This paper contributes to the understanding of how social security benefits impact poverty in Türkiye's.

Data from 2022 show that transfer expenditures from social security benefits constitute a significant portion of household income. Pensions alone account for 16.6% of disposable income and 79% of all transfers, underscoring the central role of this system. This aligns Türkiye's welfare system closely with the Conservative/Mediterranean welfare regime defined by Ferrera (1996), where contributory social insurance mechanisms dominate and income support is largely directed toward the retirement phase. Supporting the assessment by Matsaganis et al. (2006, 2007) of poverty-fighting social benefits in Europe, Türkiye's poverty profile closely resembles that of other Southern European welfare states, Greece, Italy, Portugal, and Spain, while differing from France. In France, the structure of the economy and tax-benefit system results in a lower poverty rate and a shallower poverty gap.

Poverty analysis shows that in a hypothetical scenario without social transfers, the poverty rate would increase from 19.1% to 39.6%, and the poverty gap would rise significantly. These findings clearly illustrate the poverty-reducing effect of transfers. The strongest protective impact is observed among the elderly; in the absence of social benefits, poverty among this group rises dramatically, with the poverty rate among those aged 80+ exceeding 80%. This indicates that the social security system significantly prevents elderly poverty, primarily through age-based income protection mechanisms.

However, this structure has certain limitations. Firstly, the system appears less protective for younger and working-age populations. The concentration of transfer spending on the elderly may leave those who are not fully integrated into the labor market or working informally without sufficient protection. Furthermore, the dominance of contributory benefits may exclude individuals without a history of regular employment from future social safety nets. This strengthens criticisms that such systems may contribute to the reproduction of long-term poverty.

In light of these findings, we can more clearly answer the core questions: Social policies implemented in Türkiye in the 21st century have been quite effective in reducing poverty among the elderly, albeit with relatively poor targeting. However, the same policies are not sufficiently inclusive for younger, unemployed, or precariously employed individuals. As in the case of other Southern European models, there is a need to improve the delivery of social assistance to these groups that fall outside the more formal social insurance based safety net as advocated by Buğra (2007) and to improve the capacity of the system to improve the sever gender equity issues in Türkiye, Kiliç (2008). To manage this risk, social assistance policies need to be more targeted, inclusive, and strengthened through non-contributory support mechanisms. In conclusion, although Türkiye's social security system reduces poverty for certain segments, for it to function as a comprehensive welfare architecture, the scope of social assistance must be expanded. Policies targeting the young and employable population must be reinforced, and the system must be transformed into one that offers inclusive solutions without fostering dependency over the long term.

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