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Redistribution Trends in Turkey: Unintended Consequences vs. Deliberate Policies

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ABSTRACT

We investigate the impact of taxes, transfers, and social spending on inequality in Turkey during the first two decades of the 21st century. We employ Household Budget Surveys from 2003, 2007, 2011, 2015, and 2019 to estimate market, pension as deferred income, gross, disposable, consumable, and final incomes following the framework developed by the Commitment to Equality Institute. We show that the equality-enhancing effect of total taxes and transfers became more noticeable, resulting in a larger decline in the Gini coefficient from 2003 (12 percentage points) to 2019 (17 percentage points). A large part of the higher equality-enhancing impact over time is accounted for by the unintended consequences of structural changes, past policies, and demographic trends. We focus on the forbearance of self-employment and capital income under-reporting, the endurance of past pension policies, the effect of the declining fertility rate, and explicit policy choices in the areas of health and social assistance. Compared to Latin American countries, the Turkish welfare system redistributes more, especially through the pension system, but also causes relatively higher fiscal impoverishment for low-income households due to the disproportionately high share of indirect taxes.

JEL Classification: D31, H22, H5, I38

1 | Introduction

In Turkey, according to aggregate GDP by income, the capital's gross share of income is very high, covering almost two-thirds during the 2000s. Moreover, the effective taxation of corporate profits and wealth is very light. While indirect taxes on consumption constitute the majority of tax revenue, taxes on labor income appear to be the second largest source of tax revenue. Notwithstanding this unequal distribution of pre-tax income and tax burden, disposable income inequality Gini in Turkey fluctuated around 0.40 during the 2000s, when the Justice and Development Party led by Erdoğan (AKP after its Turkish acronym) won numerous general and local elections. The discrepancy between macro variables such as GDP, functional income distribution and taxes, and inequality statistics urged

some scholars to question the validity of inequality statistics (Boratav 2006; DİSK-AR 2021; Oyvut 2021).

Many political analysts suspect that inequality statistics do not reflect reality (e.g., Boratav 2006; Sönmez 2013). Some researchers proposed that the working class was able to sustain their consumption levels by taking over more debt (Karacimen 2015) and social assistance (Aytaç 2014). Other researchers claimed that AKP owes its electoral success to its appeal as an Islamist and nationalist movement (Tuğal 2012; Akçay 2019)¹, and/or unfair elections (Esen and Gumuscu 2016; Somer 2016; Sözen 2020). While not rejecting any of the above explanations, we further believe that income inequality is underestimated due to data limitations. Turkish inequality statistics are solely based on survey data without

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any additional tax or administrative data. As Lustig (2020) documents, survey data suffers from “the missing rich” problem, where the highest-earning households rarely respond to surveys or tend to underreport property income and profits. Moreover, there is ample evidence for increased borrowing and noneconomic voting.

However, we believe that macro and micro data can be reconciled. Moreover, evidence of noneconomic voting does not suggest the absence of economic voting (Borck 2007; Kenworthy and Pontusson 2005; Hillen and Steiner 2025). Median voter theorems predict more redistribution when inequality rises (Borck 2007). Kenworthy and Pontusson (2005) point out that in affluent OECD countries, an increase in inequality was accompanied by more redistribution in the 1980s and 1990s instead of a decline in the welfare state. Hillen and Steiner (2025) analyze survey data spanning three decades and report that an increase in inequality leads to more support for redistribution. Capital income includes property income (especially imputed rent for owner-occupied housing) and income from self-employment, which is common and does not only accrue to high earners. Voters are expected to take into account redistribution in the form of pensions, education, and health in addition to market income. A comprehensive analysis investigating all these subtleties would require repeated estimations of different definitions of income, such as gross income, disposable income, etc., to document the impact of policies over the years.

We employ the Commitment to Equity (CEQ) Institute methodology (Lustig 2018) to estimate inequality statistics for market, gross, disposable, consumable, and final incomes for the years 2003, 2007, 2011, 2015, and 2019. The CEQ methodology is a static accounting exercise, not considering behavioral responses, lifecycle implications, or positive externalities of in-kind public services. However, it corresponds to the everyday understanding of who pays taxes and who benefits from transfers and public services and is suitable for exploring the political economy puzzle of Turkey. Applying the CEQ methodology also allows us to compare our results with studies from middle-income countries in Latin America and Eastern Europe using a similar methodology.

Previous studies on fiscal incidence in Turkey mostly emphasized the progressivity of income tax (Pınar 2004; Albayrak 2011; Albayrak et al. 2016; Yılmaz 2016; Yılmaz and Sefil-Tansever 2019) and social assistance (Tekgüç 2018), as well as the regressivity of consumption tax (Gökşen et al. 2008; Albayrak 2010; Albayrak et al. 2016; Yılmaz et al. 2019).² In addition to the above studies that covered only specific tax and transfer items, the recent studies by Cuevas et al. (2020) and Ünal (2022) adopted the same CEQ methodology for one particular year only. Gemicioğlu et al. (2024) differ from previous studies by analyzing changes in consumption taxes (and inflation) instead of levels. They create artificial panel data from repeated micro cross-section data. They decompose the changes in equality to tax and inflation changes and find that depending on the method, changes in tax rates account for 31%–68% of the unequalizing effect of prices. We differ from the previous studies by analyzing the fiscal incidence for various years, as well as by exploring its long-term dynamics with the help of a multi-observation period (2003–2019).

The key findings of this study show the growing redistributive impact of taxes and transfers on income distribution in Turkey between 2003 and 2019. While the total reduction in the Gini coefficient due to taxes, transfers, and social spending was 12 percentage points in 2003, the corresponding impact increased to 17 percentage points in 2019. We focus on four major developments to analyze the increasing equality-enhancing impact of taxes and transfers on income distribution over time in Turkey.

The first of these developments appears to be the expected outcomes of deliberate policy choices of the AKP regime, such as the enhanced access to the healthcare system following the initiation of the Health Transformation Program in 2003, and the introduction of more targeted social assistance programs. Although these deliberate policy choices contributed significantly to the equality-enhancing impact of total taxes and transfers, the sources of improvements in the distribution of income did not always emerge as the outcomes of explicit policy choices. The second development manifests itself rather as an unexpected result of structural shifts in the labor market in the presence of forbearance of self-employment and capital income under-reporting. Income from wages is effectively taxed at a higher rate compared to self-employment. The ongoing structural change from informal self-employment to wage employment in larger firms during the AKP era resulted in higher income tax revenues without a comparable increase in tax rates.

The third development is the reflection of the enduring effects of previous pension policies by the past governments in spite of the attempts by the AKP regime to reverse them by increasing the retirement age. Retirement pensions are the single largest item of welfare in Turkey and their impact in the current period is closely associated with the decisions taken in the 1980s and 1990s. The changes regarding the retirement age introduced later in the AKP period only apply to new entrants and have barely affected redistribution during the study period.

The last of the developments is observed as an indirect consequence of demographic trends in the presence of higher enrollment rates in education. While the fertility rate continued to decline despite the government's pronatalist policies during the AKP period, upward trends in enrollment continued, especially in high school and tertiary education. The combined impact of decreased fertility and increased enrollment led to a proportionally larger decline in the number of children in education for middle- and upper-income households. In other words, in-kind transfers for primary and secondary education became even more pro-poor despite government efforts to increase fertility. However, we also document that the redistributive policies significantly reduce income inequality at the expense of increased poverty for low-income households because these redistributive policies are partly financed by indirect taxes.

Methodologically, we introduce a novel set of assumptions supported by evidence gleaned from administrative records. We do not merely apply the tax code when we impute taxes and social security contributions (SSCs) to incomes declared in the survey. We take into account informality and make differential adjustments for the under-reporting of certain incomes. We rely on administrative reports when making these adjustments and compare our tax and SSC estimates with actual tax revenues. We

also take into account enrollment in the social security system and the age of each household member when imputing in-kind health spending to households.

The rest of the paper is organized as follows. In the next section, we review recent research on tax and transfer incidence in Turkey. Section 2 lays out the main aspects of the CEQ methodology along with the description of relevant data used in this study. Section 3 presents the results associated with the impact of fiscal policy components on income inequality. Section 4 discusses the drivers of the change over time and provides comparisons with other countries investigated via CEQ methodology. The concluding section summarizes the findings and addresses the limitations of our study.

2 | Data and Methods

We follow the CEQ methodology to perform incidence analysis (Lustig 2018). CEQ methodology has an accounting perspective where taxes and transfers are added or subtracted (see Table 1). CEQ methodology's big advantage is that it provides a comprehensive framework not only to assess the progressive/regressive incidence of individual taxes but also their overall and individual impact on inequality. The presentation of the impact of taxes and social spending on inequality allows for an explicit discussion of policies through an equity perspective (e.g., Enami et al. (2023) employ CEQ methodology to evaluate the fiscal feasibility of Basic Income schemes for five developing countries).

Imputed taxes in CEQ methodology generally underestimate taxes with respect to administrative records. Nevertheless, in CEQ methodology, tax estimates are not calibrated to administrative records. Lustig (2020) points out that the coverage of household surveys is incomplete due to the missing rich. Rich households are less likely to answer the surveys, yet their share in income can be substantial. Hence, calibrating the tax estimates to official records will

impute excessive taxes to households responding to the survey. Moreover, the coverage of Household Budget Surveys (HBS) and official records is not perfectly aligned. For example, consumption taxes incurred by businesses (especially taxes on energy), tourists, or unregistered immigrants are not covered by HBS. Supporting Information S1: Tables A1 and A2 compare our estimates with National Accounts and Budgets.

2.1 | Data

2.1.1 | Household Surveys

We employ the HBS for the years 2003, 2007, 2011, 2015, and 2019. The primary purpose of the HBS is to determine the weights of the consumption basket to be used in the consumer price index. The HBS is administered every month in order to catch the seasonality of consumption. Every member of the household is asked to keep track of their purchases for 1 month. The HBS also collects detailed data on individuals' demographics, labor market, and income characteristics, as well as household characteristics including data on dwelling conditions. Resulting micro datasets include 25,764, 8548, 9918, 11,491, and 11,521 observations, respectively, for 2003, 2007, 2011, 2015, and 2019. It is not possible to estimate the non-response rate for 2003 and 2007 because of replacement interviews, but non-response rates were 36%, 26%, and 26% for 2011, 2015, and 2019 (further details on the HBS are available in Supporting Information S1: Appendix F).

2.1.2 | Other Data Sources

2.1.2.1 | Education and Health. We obtain education spending and the number of students in public education from TURKSTAT (2021a) for later years. For 2003 and 2007, we relied on the Ministry of National Education Resources (MONE 2008). We obtained health spending statistics from TURKSTAT (2021b) and the share of the population with access to public health-care from the HBS survey.³

2.1.2.2 | Tax Regulation. For income tax regulation, we consulted the Revenue Administration Annual Reports (Revenue Administration 2021). Supporting Information S1: Table F1 provides the SSC rates for each year; Supporting Information S1: Table F2 presents an example for the calculation of cost to the employer, gross and net wages 2015; and Supporting Information S1: Table F5 provides an estimation of averages for motor vehicle tax. We obtained value-added tax (VAT), Special Consumption Tax, and Special Communication Tax rates from various Official Gazette issues published by the Grand National Assembly of Turkey. We provide yearly tax rates by items and/or amounts per unit in Supporting Information S1: Tables F6–F9.

2.1.3 | Construction of Different Types of Incomes

We follow Lustig (2018), who defines six main types of income: market income, contributory pensions as deferred income (PDI hereafter), gross income, disposable income, consumable income, and final income. HBS measures disposable income. Other types of income have to be estimated from household

TABLE 1 | Components of alternative definitions of income.

Income types	Components
Market income	$W + SE + IC + AC + IROH + PTran + IT + SSC - ITC$
PDI	Market income + SSP – SSC
Gross income	$PDI + GT + ITC$
Disposable income	$Gross\ income - (IT + MTV)$
Consumable income	$Disposable\ income - IndT$
Final income	$Consumable\ income + InkindT$

Note: W: Wages and salaries income, cash or in-kind, formal or informal. SE: income from self-employment or being an employer. IC: Capital income (rent, dividend, interest, profit, etc.), formal or informal, excluding gifts. AC: Consumption from self-production. IROH: imputed rent for owner-occupied home. PTran: Transfers from other households (gifts, charity, alimony, etc.) IT: Direct taxes on W, SE, and IC, *estimated by authors*. SSP: Social security pension. SSC: social security contributions, *estimated by authors*. GT: cash or in-kind government transfers, mostly social assistance. ITC: income tax credit (*asgari geçim indirimi* Turkish), *estimated by authors*. MTV: motor vehicle tax (Turkish acronym), *estimated by authors*. IndT: Indirect taxes; value-added tax, special consumption tax, special communication tax, *estimated by authors*. InkindT: health and education services directly provided to the public, *estimated by authors*.

data and imputed components such as imputed taxes paid or per capita health spending. Market income is income obtained from private sources, including transfers between households, and corresponds to pre-tax and pre-transfer income. Many people regard pensions as deferred wages. Indeed, in Turkey, in everyday usage, pensions are referred to as “retirement wages” (*emekli aylığı* in Turkish). PDI corresponds to this commonplace definition; it is equal to market income plus pensions minus SSCs.⁴ Gross income is pre-tax, post-transfer income. It is equivalent to PDI income plus other direct government transfers to households, including social assistance or scholarships. Disposable income is gross income minus direct taxes on income and wealth.⁵ Consumable income is calculated by deducting consumption taxes from disposable income. Final income is calculated by adding the per-person cost of health and education services to government onto consumable income. Table 1 provides formulas and brief definitions of components included in each income type. Estimated components are denoted in italics. Other components are directly observed from the household surveys. The HBS reports net incomes of households, so estimated components of income are taxes or SSCs plus in-kind transfers included in the final income.

Below, we discuss the imputation of taxes and transfers, where we differ most from other studies. The details of the estimation of the rest are discussed in Supporting Information S1: Appendix F to save space.

2.1.4 | Income Taxes and SSCs by Self-Employed and Employers

The Social Security Administration (2021) records show that around 93% to 100% of self-employed people declared their income as the legal minimum in that year (Supporting Information S1: Tables F3 and F4). The self-employed and employer incomes observed in the surveys are significantly higher than legal minimums. When Cuevas et al. (2020) naively estimate SSCs from surveys, their SSC estimates are multiple times more than the actual SSC from the self-employed for 2015. They then rescale individual estimates downward to correct for overestimation. Their methodology is likely to result in many individuals being estimated to pay less than legal minimum premiums. Instead, we assume that each self-employed person registered in the social security system pays the legal minimum irrespective of the survey income. We also calculate income and stamp taxes, assuming that each formally registered self-employed person pays their taxes from the minimum amount.

2.1.5 | Estimation of Education and Health In-Kind Transfers

We obtained the per-student public education spending simply by dividing the total spending by the total number of students. We assigned the estimated per capita amount to every student in the survey (Supporting Information S1: Table F10). We obtained per capita health spending by dividing total public health spending by the population with access. Then, we scaled the average per capita health spending to individuals according to

their age group following Mollahaliloğlu et al. (2006: 6) (tab. 1.8 panel C) health spending by age group estimates for Turkey (see Supporting Information S1: Table F11). We follow Cuevas et al. (2020) and Ünal (2022) and impute the full cost of public health and education to the HBS. The implicit assumption is that missing-rich households who do not respond to surveys do not utilize the public health and education system and households using the public health and education system are represented in the surveys.⁶

3 | Findings

We compare our total income and tax estimates with official data as a sanity check. Supporting Information S1: Table A1 provides comparisons with National Accounts data for 2011, 2015, and 2019. It shows that HBS coverage is pretty good for most income types except capital incomes. Supporting Information S1: Table A2 compares taxes and transfers in HBS vs. administrative records. We overestimate taxes only for 2003. Discrepancy between our estimates from HBS and official records declines from 2007 to 2019. We present aggregates for gross, disposable, and consumable income totals in Supporting Information S1: Table A3 and the distribution of each income type in Supporting Information S1: Figure A1. Supporting Information S1: Table A3 documents the increasing share of labor and pension incomes over time and the concomitant decline in the share of self-employment income. Supporting Information S1: Figure A1A shows the importance of pensions, especially for the lowest income groups. Likewise, Supporting Information S1: Figure A1B shows the regressive effect of indirect taxes and the progressive effect of health and educational spending.

3.1 | Income Inequality

There has been a slight improvement in income inequality between 2003 and 2019, according to the Gini coefficient measured at the market income without any fiscal intervention (Figure 1).⁷ Although the Gini coefficient fell from 0.511 in 2003 to 0.497 in 2019, there was not a steady trend for the whole period. Following a noticeable decrease from 0.511 in 2003 to 0.455 in 2007, the Gini coefficient displayed a rising trend in the post-GFC period and reached its peak at 0.52 in 2015. Although this increasing trend was later reversed, the Gini coefficient in 2019 (0.497) was still higher than the values observed both in 2007 and 2011.⁸ Figure 1 also illustrates the essential role of pension transfers in terms of affecting income inequality. This reduction in income inequality is achieved by adding pension earnings to the market income and subsequently subtracting SSCs. The reduction of the Gini coefficient for all years when moving from market income to pensions as deferred income (PDI) highlights the significance of pension-related transfers in terms of enhancing income equality. Another noticeable contribution to improved income equality is derived from in-kind transfers in education and health that are marked through declining Gini coefficients when moving from consumable income to final income for all observations in this study.

Figure 1 also demonstrates the impact of total transfers and tax on income inequality in Turkey between 2003 and 2019

through the Gini coefficient values. The sum of all taxes and transfers led to improvements in income inequality for the whole period, which can be observed through lower Gini coefficients when measured at final income compared to market income. Furthermore, the effect of these policies on income inequality has become more significant over the years. In 2003, fiscal policies in Turkey improved income inequality by reducing the Gini coefficient from 0.511 (measured at market income) to 0.389 (measured at final income) corresponding to a gap of 0.122. The gap between these two Gini measurements started to widen further, especially after 2007, and reached its peak in 2019 at 0.172.

3.2 | Fiscal Incidence of Taxes and Transfers

This section discusses the main drivers of the impact of taxes and transfers on inequality. Marginal contribution calculates the effect of a tax or transfer on inequality by comparing the Gini coefficient with and without that particular tax or transfer. These contributions are measured independently of the order of inclusion of taxes and transfers. In the previous

section, the changes in Gini coefficients were computed in a sequential manner.

Figure 2 shows the marginal contributions of each transfer and tax (as percentage Gini points) and how they change over time. Figure 3 further presents how marginal contributions are associated both with the size of a tax or transfer relative to household income (as a percentage of disposable income) and with the relative progressiveness of individual taxes and transfers (Kakwani Index). Positive (negative) Kakwani values indicate the progressivity (regressivity) of a tax or transfer by comparing the distribution of a tax or transfer at each decile (concentration index) with the Gini coefficient at market income.

$$\pi_T^K = C_T - G_M \quad (1)$$

where C_T is the concentration index for the tax or transfer T and G_M is the Gini coefficient of market income. The concentration index, C_T , is calculated as twice the area between the concentration curve and the line of equality (the 45° line). Concentration curve plots the cumulative percentage of taxes or transfers (y -axis) against the cumulative percentage of

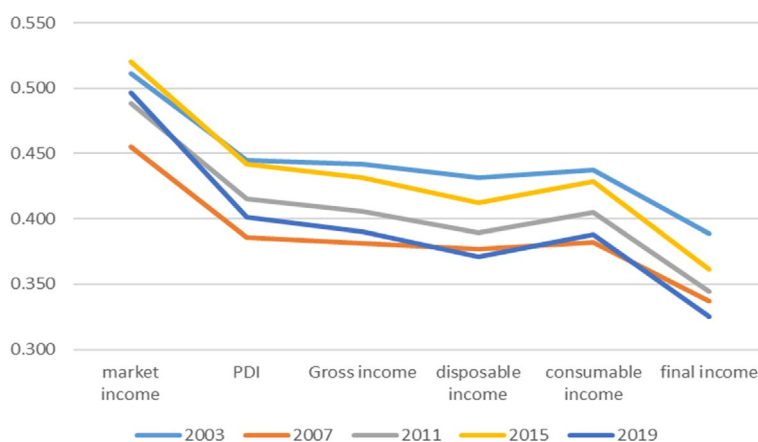


FIGURE 1 | Gini coefficients. PDI stands for pensions as deferred income. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

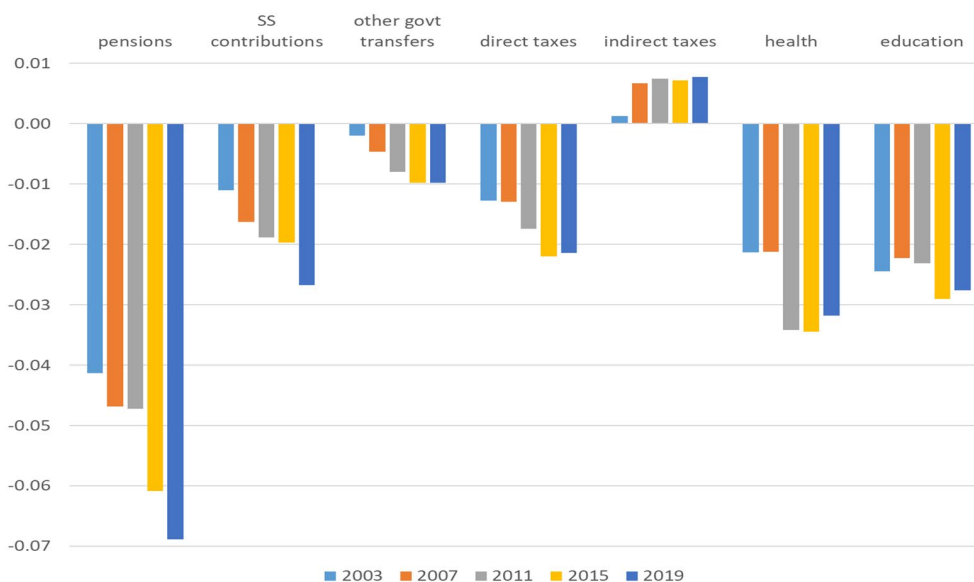


FIGURE 2 | Marginal contributions of taxes, transfers, and social spending. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

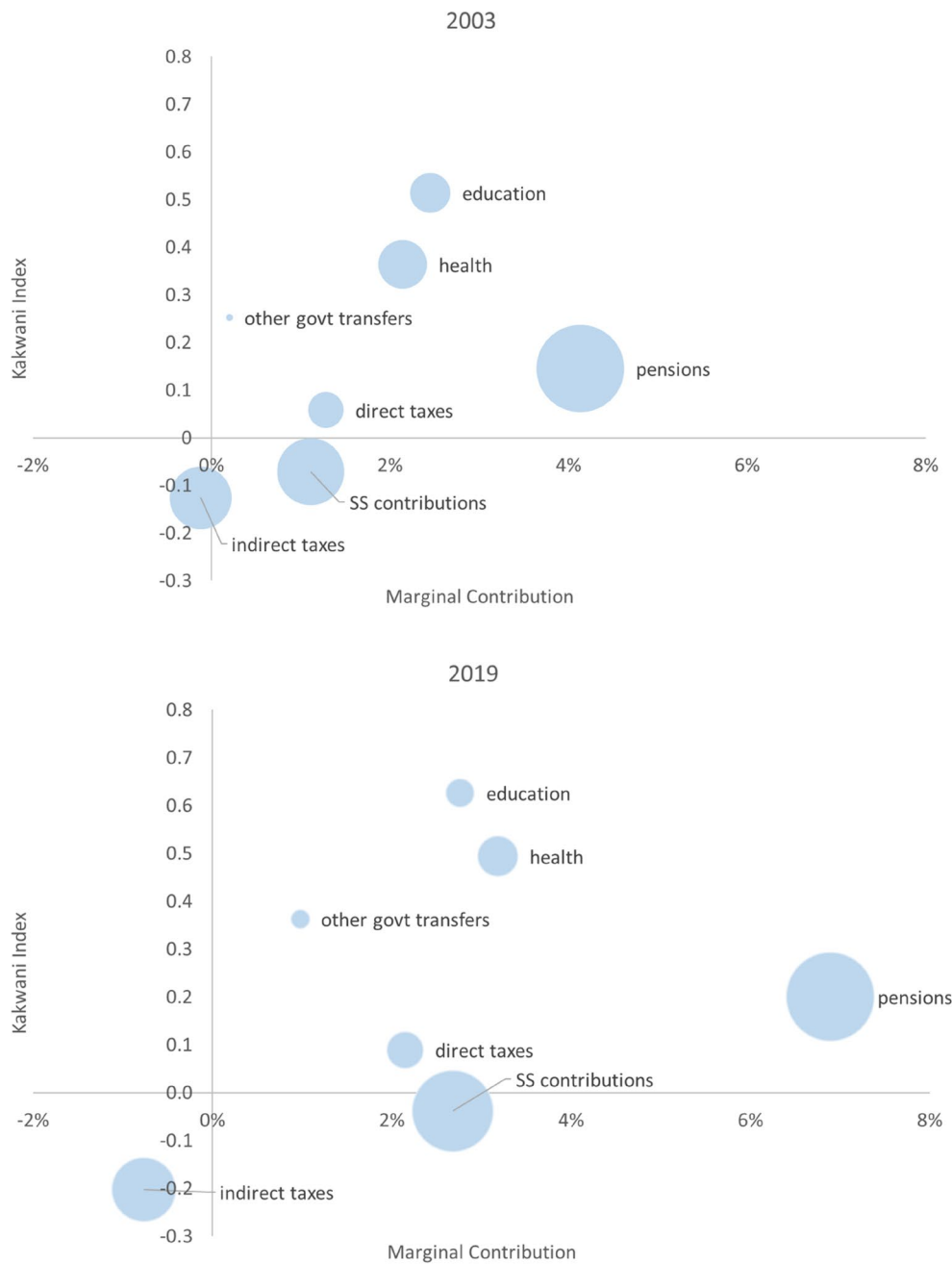


FIGURE 3 | Marginal contribution, Kakwani index, and size of fiscal interventions. Marginal contributions of each fiscal intervention in terms of reductions in the Gini coefficient in Table D1 are indicated as positive values along the horizontal axis on this graph to capture their equality-enhancing impact. The areas of bubbles show the size of each fiscal intervention relative to disposable income. Kakwani indices are used along the vertical axis. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

income (x -axis). For taxes, it resembles the Lorenz curve for income. However, for progressive transfers, which decline with increasing income, its shape becomes concave and the corresponding concentration index becomes negative. As a result, the maximum value of the Kakwani index is 1 minus the G_M , and its minimum value is -1 minus the G_M . A higher absolute concentration index value indicates a more unequal distribution of the tax or transfer. When a tax targeted to high-income households is distributed more unequally than the income in consideration, the concentration index of the tax will be larger than the Gini coefficient. Consequently, such a tax will be relatively progressive and its Kakwani index takes on

a positive value. Similarly, a transfer targeted to low-income households will be relatively progressive when the distribution of the transfer is less unequal (i.e., the concentration index of the transfer will be smaller than the Gini coefficient) than the market income. Normally, in the case of transfers, the Kakwani index will be negative, but for transfers, we invert the left-hand side, so positive values are associated with progressivity. Moreover, a negative sign for the concentration index further implies absolute progressiveness (not only progressive but also pro-poor) regarding the transfer, in which the share of the transfer going to each decile decreases as income increases. Supporting Information S1: Table D1 presents

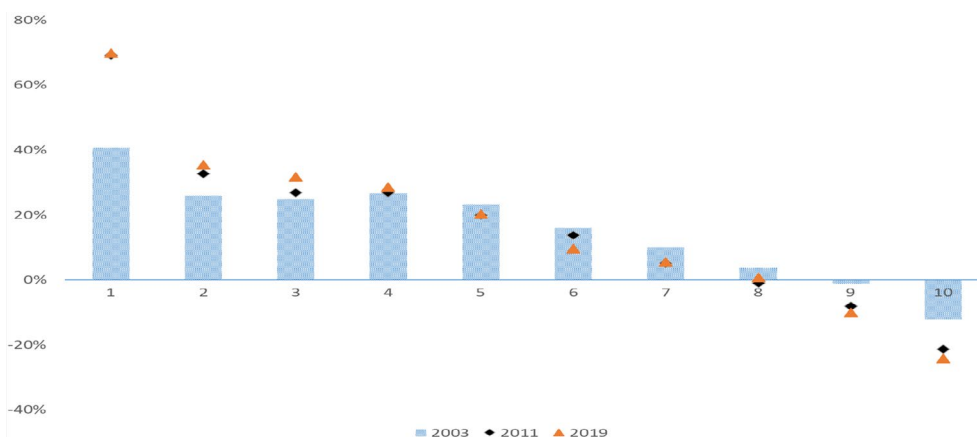


FIGURE 4 | Fiscal incidence of total transfers and taxes 2003, 2011, and 2019. Households are ranked by disposable income. [Colour figure can be viewed at wileyonlinelibrary.com]

the marginal contribution, relative size, and concentration index of each tax and transfer for all years.

Pensions had a persistently significant and equality-enhancing impact on income distribution and became singlehandedly the primary contributor among all taxes and transfers. This positive effect showed a steady progress between 2003 and 2019. While the size of pensions as a percentage of disposable income remained the largest fiscal intervention compared to other fiscal tools for the entire period, its Kakwani index also increased throughout the same period. Therefore, both its size and its relative progressiveness accounted for pensions' large equality-enhancing impact on the distribution of income.

The marginal contribution of in-kind health transfers was positive for the entire period and its equality-enhancing impact on income distribution became more pronounced after 2007. Improvements in the equality-enhancing impact of in-kind health transfers over time seemed to be prompted more by the improvements in their progressiveness rather than their relative size, which was observed by the steady rise in their Kakwani Index since 2003. In contrast, their relative size in 2019 was almost the same as their size in 2003.

While in-kind education transfers also contributed to the overall reduction in income inequality, their positive contribution showed only a slight change over the years. Despite their persistently rising progressivity over the years, as observed by higher Kakwani values, possibly larger marginal contributions of in-kind education transfers were limited by their size similar to the case of health transfers. While in-kind education transfers were the only fiscal intervention that experienced a decline in their relative size, their progressiveness was also associated with the pro-poor characteristics of these transfers, which were derived mostly from primary and secondary education transfers (Supporting Information S1: Table D1).

Although the equality-enhancing impact of other government transfers, including social assistance and income tax credits, nearly quintupled between 2003 and 2019, their marginal contribution remained the lowest among all transfers. These transfers also experienced the highest growth rate in terms of their size relative to disposable income and rose from 1.3% of

disposable income in 2003 to 4.1% in 2019, which was mostly due to the introduction of the income tax credit. Although the concentration index for other government transfers at the aggregate level remained positive for the whole period, it turned negative in 2011 and became more pro-poor over time exclusively for social assistance, as is observed in more detailed data.

The marginal contribution of SSCs showed an increasing trend for the whole period and their equality-enhancing impact on income distribution exceeded that of direct taxation, starting in 2007. One driver of this enhanced positive impact turned out to be the growing size of SSCs relative to disposable income. Although it remained relatively regressive over the years (negative Kakwani values), it had an equalizing impact on the distribution of income during the same period. Therefore, SSCs in Turkey can be considered as an example of Lambert's Conundrum, in which; "[a] regressive tax can be more equalizing than a system that excludes it" (Enami et al. 2017, 25).

The marginal contribution of direct taxes increased from 1.28 percentage points in 2003 to 2.15 percentage points in 2019 along with a rise in its relative size in the same period. Unlike the cases of SSCs and indirect taxes, there was a clear pattern of relative progressiveness in direct taxes for the whole period. Therefore, both the size and the relative progressiveness of direct taxes accounted for their equality-enhancing impact on income distribution, particularly after 2007.

Indirect tax was the only category between 2003 and 2019 that negatively affected income distribution in Turkey. Its magnitude in terms of increasing the Gini coefficient jumped from 0.12 percentage points in 2003 to 0.66 percentage points in 2007; the same impact got slightly larger in 2019 and ended up at 0.77 percentage points. The steady increase in its relative size as a share of disposable income and the continuous growth of its regressive character contributed to the negative contribution of indirect tax on the distribution of income (as well as fiscal impoverishment).

Figure 4 presents the total fiscal incidence on different income deciles in Turkey over time. We present observations from 2003, 2011, and 2019 for each decile. While a positive value indicates

that a given decile was a net receiver (i.e., The sum of transfers received exceeded the sum of social security and overall taxes), a negative value shows that a given decile was a net payer. Supporting Information S1: Figures D1–D3 present the decomposition of the contribution of each tax and transfer for deciles for the years 2003, 2011, and 2019.

The bottom 70% of the population turned out to be net receivers for the whole period, in which the sum of their transfers surpassed their SSCs and total taxes. The fiscal incidence curve in both 2011 and 2019 presents a clear relationship between the amount of net receipts as a share of per capita disposable income for each decile and their ranking in the distribution of income, whereas the same relationship was more ambiguous in 2003.

One of the most important drivers of this change appeared to be the improvement in the net receiver position of the bottom three deciles, particularly that of the lowest decile, between 2003 and 2011. The net payments as a share of per capita disposable income received by the poorest decile jumped from 40.7% in 2003 to 69.8% in 2019. The same share was 35.4% for the bottom second decile and 31.7% for the third decile in 2019. In 2003, these shares were only 25.8% and 24.7%, respectively.

Additionally, there was also a rise in net payments of the top two deciles between 2003 and 2011, whereas the fiscal incidence of the deciles in the middle range either did not alter significantly or showed some reduction in the net receiver positions. The top decile experienced a steep rise in its net payments as a share of per capita disposable income from 12.2% in 2003 to 24.2% in 2019. The corresponding shares for the ninth decile were 1.1% in 2003 and 10% in 2019.

4 | Discussion

4.1 | Improvements due to the Deliberate Policy Choices

One source of increased redistribution is increased access to the healthcare system and per capita spending. The Health Transformation Program is one of the signature policies of Erdoğan's governments in their first decade in power. Access to public healthcare facilities increased substantially in the 2003–2010 period (Tekgüç and Atalay-Güneş 2015; Dorlach 2015; Yıldırım 2017; Yardım and Uner 2018; Özen 2018). Furthermore, per-person spending increased substantially between 2007 and 2019. Figure 7A shows that the proportion of households with access to the healthcare system increased greatly between 2003 and 2011. Likewise, average per capita health spending rose, especially after 2010 (Supporting Information S1: Figure D5).

Social assistance is another policy arena in which successive AKP governments are very active. Indeed, social assistance programs were expanded significantly during the study period (see Supporting Information S1: Figure D4 and Table D1 for details). As a result, social assistance programs became more pro-poor over the years. Nevertheless, social assistance programs have the least equalizing effect simply because the overall size

of these programs is small relative to pension transfers, public health, or education spending.

4.2 | Improvements due to Structural Change: Income Taxes and SSCs

In Section 3.2, we document that direct taxes and social spending have become more redistributive over the years. Income taxes on labor earnings comprise two-thirds of all direct taxes in the study period, except for 2003. The impact of income taxes and social security premiums has become more progressive over the years. However, higher progressivity did not necessarily arise from more progressive tax rates. Supporting Information S1: Table D2 shows that the effective tax rate did not change substantially over the study period. In 2003, the range of effective tax rates was 16%–35%; in 2019, the range was 16%–36%. Likewise, Supporting Information S1: Table F1 indicates that SSC rates increased by only 1% in 2015 (aggregate employee plus employer social security and unemployment fund contributions were 31.5% in 2003, 2007, and 2011; 32.5% in 2015 and 2019). SSC rates are the same for all workers and are capped at certain levels. Rather, the impact of income taxes and SSCs became more progressive due to structural changes in the labor market and forbearance (Holland 2016). Holland (2016) notes that authorities in many middle-income countries are lenient towards certain activities like shantytowns or informal employment. In other words, authorities do not strictly enforce the building codes or employment regulations according to the legal framework. She argues that Turkey and many Latin American countries (such as Colombia, Chile, and Peru) should not be regarded as weak states that do not have the power to enforce laws. Rather, in these countries, authorities selectively enforce certain rules.⁹

In Section 2, we document that in Turkey, authorities turn a blind eye to the brazen under-declaration of incomes by self-employed individuals and employers enrolled in the social security system. Under-reporting of market income is also prevalent for wage earners, but not to the same extent (the proportion of wage earners declaring minimum wage never exceeds 65% in the study period, whereas for self-employed individuals and employers, it is around 99% for the whole period).¹⁰ Therefore, the effective tax rate for wage earners, as a whole, is higher than similar-level entrepreneurial incomes. This lenient attitude towards violations of the tax code on entrepreneurial and capital income is a fundamental part of the political economy of fiscal policies in Turkey and is a constant over the study period. Meanwhile, the structure of the economy continued to modernize, approximating that of developed countries, and the share of wage employment increased from 50% to 70% (TURKSTAT 2023). These changes in employment are also reflected in incomes. Figure 5 shows that the share of wage income has increased across all income levels, including the top 10%. As more and more wage earners are present in the top income brackets, differential effective taxation of different labor earnings has made income taxes more progressive. This differential treatment by income source also applies to SSCs that remained greater than direct taxes despite the cap limiting the income subject to SSCs. In other words, this source of improvement in redistribution is not an explicit policy choice

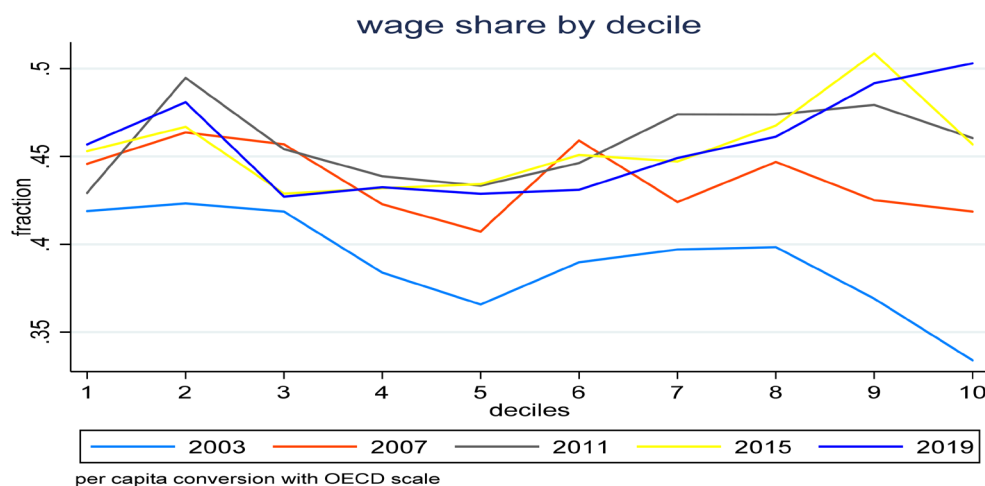


FIGURE 5 | Net wage income share by decile. Households are ranked by disposable income. Net wage income includes instantaneous income tax rebate. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/doi/10.1111/rde.13215)]

but an unintended consequence of the interaction between structural change and the political economy of Turkey. When the structural change is completed, this source of improvement in redistribution will probably disappear.

4.3 | Improvements due to the Endurance of the Past Policies

Access to the pension system has continued to expand in the study period. Per capita pensions also increased in absolute terms but less than market incomes. In the last quarter century, the pension system has been reformed in 1999, 2008, and 2023. In the 1999 and 2008 reforms, the retirement age had been increased for new entrants (the 2023 reform reduced the retirement age for certain groups). People who enrolled for the first time before 1999 could retire in their 40s or early 50s (Saydam 2018).¹¹ The 2008 reform also reduced the replacement ratio for new participants (Saydam 2018, 338). People who retired in the first two decades of the 21st century had enrolled in the pension system mostly before the AKP period, and their access was determined by decisions taken a long time ago. As a result, the share of households receiving pensions has increased over the years (Figure 6).

4.4 | Improvements as an Indirect Consequence of Demographic Trends in the Presence of Higher Enrollment Rates in Education

Another source of increased redistribution is education spending. We impute equal education spending for each child in our estimations, and families with multiple children are more likely to be in the lower half of the income distribution. Primary and secondary education spending have always been pro-poor (with a negative concentration index) because of the equal amount of spending per pupil and more children in lower-income groups. Over the years, the number of children in public primary and secondary education declined for every decile (see Figure 7B). However, the decline is more dramatic both in absolute and proportional levels for higher income

deciles. As a result, education spending has become even more pro-poor. The relative decline in the number of children in education occurred despite increasing school enrollment rates. In other words, this decline is driven by a decline in fertility.¹² The fertility decline is not the result of policy. On the contrary, President Erdoğan (who served as either the prime minister or president throughout the 2003–2019 period) is a well-known pronatalist and introduced many policies to arrest and reverse fertility decline (Dildar 2022). Dildar (2022) finds that the official pronatalist position has changed the attitude of religious women in favor of higher fertility, but the actual fertility rate continued its long-term secular decline. Finally, the share of households with at least one member in public tertiary education is increasing with income. This share increased for all income levels, especially between 2007 and 2015, and the curve became flatter, that is, equal access (Supporting Information S1: Figure D6).

4.5 | International Comparison With Other CEQ Country Studies

Table 2 presents international data on Gini coefficients from a sample of middle-income countries employing the CEQ methodology. While the Gini coefficients measured at market income for Turkey turn out to be lower than those of most countries from Latin America, the same coefficients are much closer to those in Eastern European countries. The overall assessment of the redistributive impact of fiscal policy for corresponding years by taking the difference in Gini coefficients between market and final incomes shows that all countries exhibit an equality-enhancing effect of transfers and taxes. Notwithstanding this overall equality-enhancing impact, there are important differences across countries.

First, the similarity of the Gini coefficients at market income between Turkey and Eastern European countries seems to fade because of the higher positive impacts of transfers and taxes observed in the latter, and therefore, even the lowest observed Gini coefficient measured in Turkey at final income stays higher than that of any other European country.

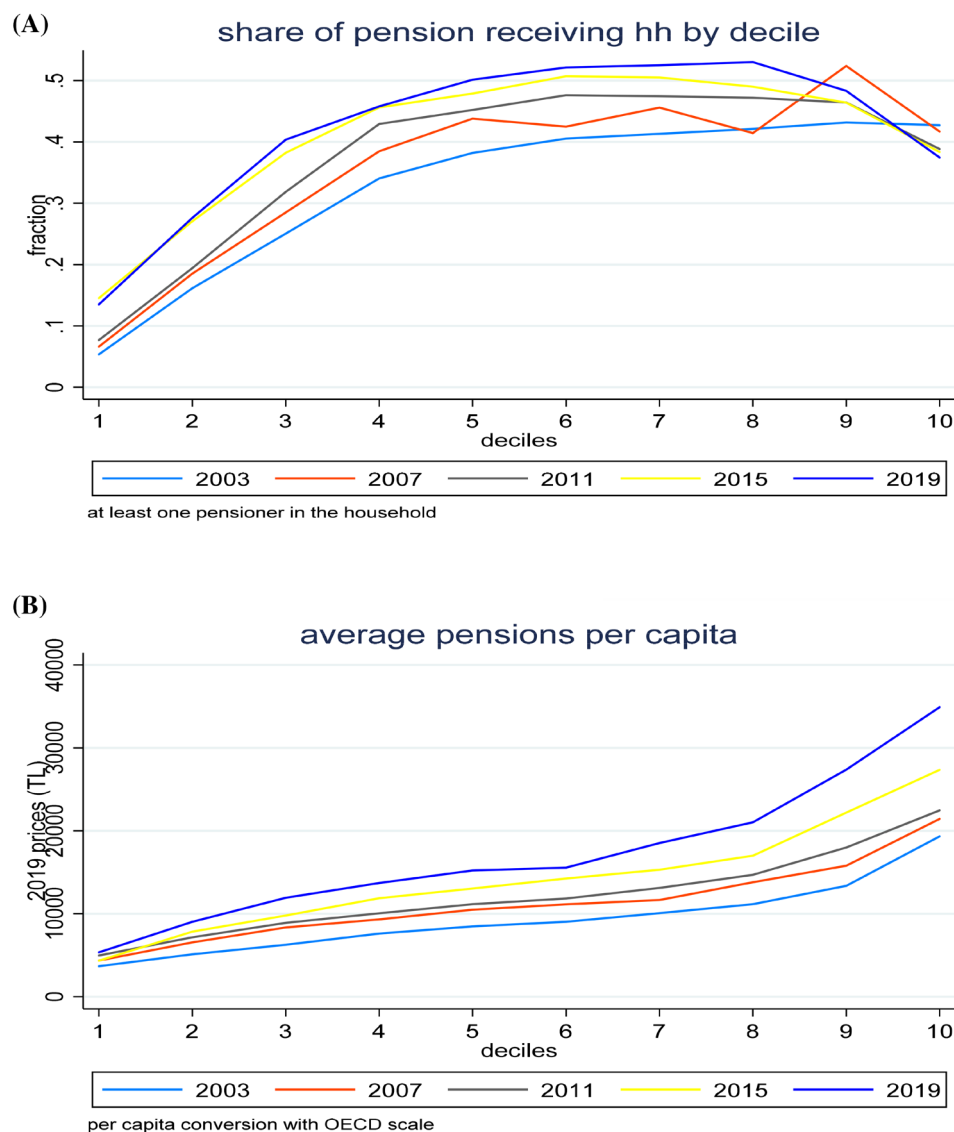


FIGURE 6 | Distribution and level of pensions. (A) Share of households with pension income. (B) Average pension by decile. Households are ranked by disposable income. Average pension is calculated for households with pension, survivors, or unemployment benefits. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

Second, when focusing on the separate impact of pension transfers (market-PDI column), the role of these transfers was much lower in Latin American countries compared to Turkey and Eastern European countries. While the impact of pension transfers resulted in an 11- to 12-point reduction in the Gini coefficients in Eastern European countries, the same effect in Turkey was still lower than that in Eastern European countries, despite Turkish pension transfers showing significant progress over time in terms of lowering income inequality.

Finally, the equality-enhancing impact of all transfers and taxes other than pension transfers appears to be much more limited for Turkey as opposed to most countries from Latin America and Eastern Europe, as observed in the last column of Table 2.

Supporting Information S1: Table E1 documents the marginal impacts of different policies on the poverty rate (Panel A) and poverty gap ratio (Panel B) at \$10 PPP¹³ per day by comparing fiscal impoverishment and fiscal gains for the poor. Similar to

inequality impacts, pension transfers seem to have the most important marginal impact on poverty reduction. The relative change as the difference between the poverty rate (gap) at market income and the poverty rate at PDI in 2003 indicates almost a 55% (61%) reduction in the poverty rate (gap) as a result of including pension as a transfer. This reduction in the poverty rate (gap) due to pension transfer progressively increased over time and became almost 70% (76%) in 2019. The rising positive impact of other transfers on the poverty rate is also observed by a gradual increase in fiscal gains to the poor measured in gross income. The poverty-reducing impact of direct taxes stayed more or less negligible for the period after 2007 because households paying direct taxes are generally above the poverty threshold. The negative effect of indirect tax was much more visible during the whole period. The absolute fiscal impoverishment due to indirect taxes showed a gradual decrease after 2003. However, by 2015, indirect taxes were the primary cause of consumable income poverty. In 2003, 5.5% out of 20.8% was consumable income poverty due to indirect taxes. By 2019, 2.8% out of 5.2%

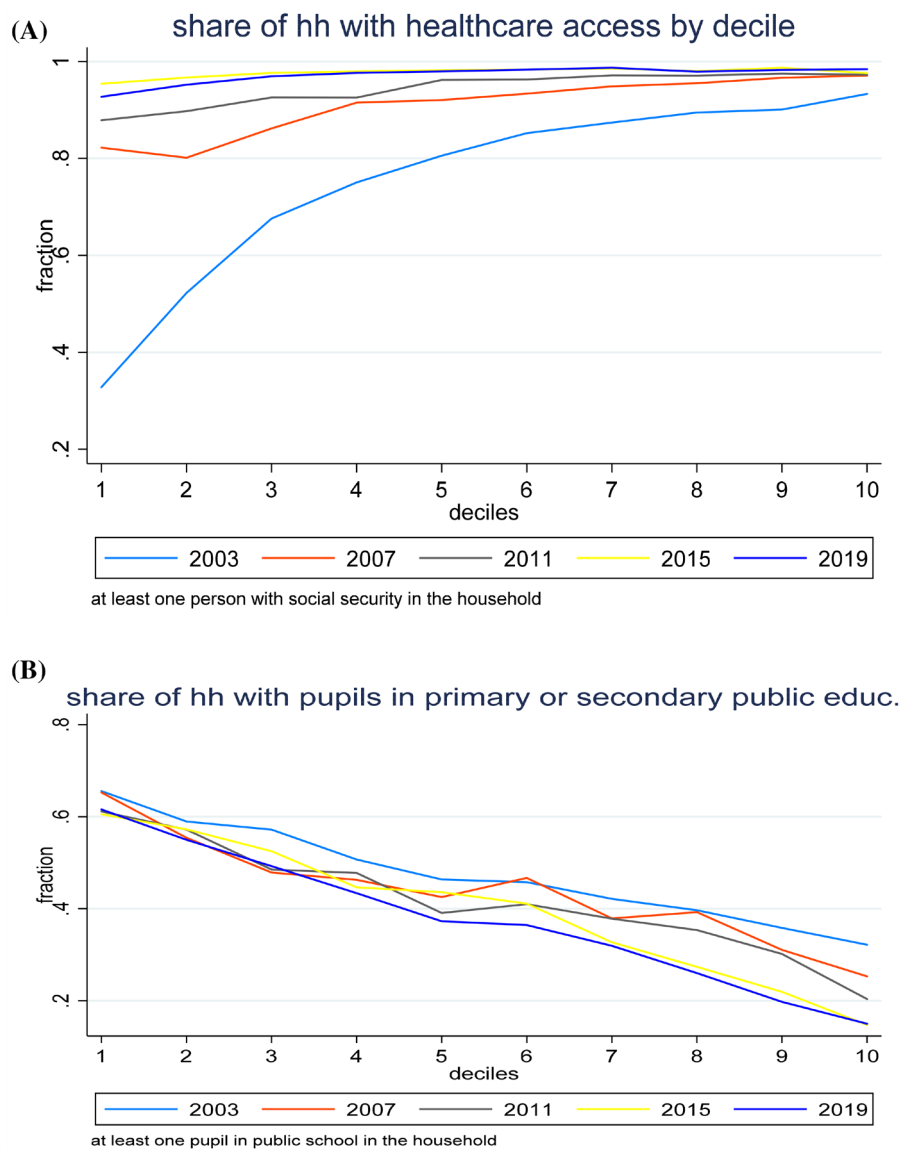


FIGURE 7 | Health and education access. (A) Access to public healthcare system. (B) Share of households with children in public primary and secondary education. Per capita spending for education is flat across deciles. Per capita spending for primary and secondary education amounts increased significantly. Graphs for per student education spending are available upon request. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/terms-and-conditions)]

was fiscally impoverished by indirect taxes. Similarly, in 2003, 0.021 out of 0.066 poverty gap ratio was due to fiscal impoverishment by indirect taxes. This proportion increased to 0.015 out of 0.021 in 2019.

The lowest poverty rates at market income are observed in Chile, Poland, and Russia. Turkey's poverty rates for per capita income, not adjusted for household size, are closer to Eastern European countries as well as some countries from America, such as Argentina, Uruguay, and Costa Rica (Supporting Information S1: Table E2). Although almost all countries experienced the poverty-reducing impact of all transfers and direct tax, this impact varied across countries. There are very limited improvements associated with all transfers and direct tax, especially in those countries where the rate of poverty at market income is measured at the highest level, such as Brazil, Colombia, or Mexico. Turkey had one of the highest reductions in poverty rate, along with countries such as Argentina, Uruguay, Russia,

and Poland, once the impact of transfers and direct tax is taken into account.

The strong poverty-increasing effect of indirect tax is evident in almost all countries with the sole exception of Ecuador. The relative impoverishment due to indirect taxes is especially high for Turkey and Croatia. Revenue from indirect taxes on households is large and similar in magnitude to spending on health and education. However, these indirect taxes come with a serious downside: they increase consumable income poverty significantly.

Our results show that most of the direct transfers to households are pensions, and other government transfers, such as social assistance, play a limited role. In other words, most other households without pensioners, which are vulnerable to poverty, do not receive any government transfers and mostly rely on labor income. In the case of emergencies like

TABLE 2 | Comparison with CEQ inequality estimates for select countries.

Country	Year	Market	PDI	Disposable	Consumable	Final	Market – PDI	PDI – final
Brazil	2008	0.593	0.573	0.545	0.542	0.479	0.020	0.094
Uruguay	2009	0.544	0.505	0.467	0.468	0.418	0.039	0.087
Chile	2013	0.503	0.494	0.467	0.464	0.420	0.009	0.074
Colombia	2014	0.575	0.575	0.566	0.559	0.515	–0.001	0.061
Mexico	2014	0.528	0.528	0.494	0.490	0.442	0.000	0.086
Tunisia	2010	0.410	0.431	0.397	0.381	0.352	–0.021	0.079
Russia	2010	0.492	0.379	0.348	0.351	0.323	0.113	0.056
Poland	2014	0.526	0.412	0.345	0.355	0.291	0.114	0.121
Croatia	2014	0.513	0.392	0.325	0.355	0.291	0.121	0.101
Romania	2016	0.487	0.378	0.334	0.336	0.307	0.109	0.071
USA	2011	0.484	0.448	0.376	0.378	0.331	0.036	0.117
This study								
Turkey	2003	0.511	0.445	0.431	0.438	0.389	0.066	0.056
Turkey	2007	0.455	0.386	0.377	0.382	0.337	0.069	0.049
Turkey	2011	0.488	0.415	0.390	0.405	0.345	0.073	0.070
Turkey	2015	0.520	0.442	0.412	0.429	0.361	0.078	0.081
Turkey	2019	0.497	0.401	0.371	0.388	0.325	0.096	0.076

Source: PDI stands for pensions as deferred income. CEQ Metadata table. <https://commitmentoequity.org/datacentres>.

COVID-19, we expect a sharp increase in poverty in the midst of the lockdowns, which caused severe employment losses. It is harder to speculate on, a priori, what would happen to income inequality since many business owners also lost income. Tekgüç et al. (2022) document that for mid-2020 employment declined significantly. They estimate that the poverty rate increased by one-third from 13.5% to 18%. They also estimate that, in the absence of emergency countermeasures, the poverty rate would have increased to 19.9% in mid-2020 (see their tab. 4). They find a minor increase (1 percentage point) in the income inequality Gini coefficient.

5 | Conclusion

In this paper, we document that the progressive redistributive impact of taxes and transfers has increased over the years. The impact of taxes and transfers on inequality is driven by four different factors: (i) Reduction in final income inequality due to new government policies such as the Health Transformation Program or expansion of social assistance. (ii) Interaction of forbearance of self-employment and capital income under-reporting with the structural transformation towards more wage employment. (iii) Endurance of pre-existing policies such as the continued expansion of the pension system. (iv) Declining fertility despite government policies makes public education even more pro-poor.

Overall, the increasing share of wages and pensions, the decline in consumption from own production, and self-employment

are indicative of the modernization process. More people are living in cities and working for a wage in the formal sector. The share of formal employment has increased, resulting in the expansion of SSCs and the enlargement of the pension system. Tax receipts from indirect taxes also increased as the share of formal commercial transactions rose even without any increase in tax rates. Furthermore, the fertility decline in the 2000s is the continuation of pre-existing trends and cannot be attributed to deliberate policy changes, which remained pronatalist throughout the period. In the first two decades of the 21st century, the benevolent impacts of taxes and transfers are mostly driven by structural changes in the economy and/or by the proliferation of nuclear families rather than by deliberate new policies. Once the structural change is completed or slowed down, these benevolent effects may stop improving social welfare.

One limitation of our study is that it relies on household surveys, which generally fail to cover rich households (Lustig 2020). Entrepreneurial and capital incomes are probably concentrated among the truly rich, which are mostly missing from the data set. In Supporting Information S1: Appendix B, we partially tried to address the missing rich issue, but a proper investigation of this issue requires much more in-depth analysis. The truly rich are absent from the surveys, making it hard to comment on any changes within this group in the 2003–2019 period.

The second limitation of our study is that we do not evaluate the transfer between capitalists and working-class households. Nevertheless, total taxes paid and total transfers received by

households seem roughly equal during the study period, suggesting a limited number of transfers between classes.

The third limitation of our methodology is that we equate per-capita spending for in-kind services as the value of these services to households. However, in recent years, many upper-income households have opted out of the public education system because of the Islamization of the curriculum in public schools (Gürçan 2015). Opting out of the upper middle class from public schools is potentially harmful to the long-term viability of the taxation base to support public services. Korpi and Palme (1998) demonstrate that Scandinavian welfare spending is not as well-targeted as Anglo-Saxon; however, it is more successful in reducing poverty and inequality compared to US or UK welfare spending because of a much larger welfare spending. The large Scandinavian welfare states are supported by a broad-based coalition of working-class and middle classes because these taxes pay for generous pensions and high-quality health and education services.

The final limitation of our study is that it is not suitable to study gender gaps in taxation and transfers because of methodological issues. Domestic care labor provided by women is not monetized; hence, it cannot be incorporated into our accounting framework.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Micro data: Household Budget Survey micro data used in this paper is obtained from Turkish Statistical Institute (TURKSTAT). TURKSTAT does not allow us to share this data with third parties. However, interested parties can obtain micro data directly from TURKSTAT by applying the following link: https://www.tuik.gov.tr/Kurumsal/Mikro_Veri. Administrative data: We obtained tax rates, SSC regulations, per capita social spending figures, and so on from various governmental annual reports to impute taxes and transfers to individuals and/or households. We compiled all this information into Supporting Information S1: Appendix F with additional details on how to reach the official sources.

Endnotes

- ¹ These are local variations of working-class-voting-against-its-economic-interest argument.
- ² Unlike other studies which focus on income inequality, Akkoc et al. (2023) analyze consumption inequality and obtain progressive impact for indirect taxes.
- ³ We assumed that if anybody in the household responded “saglıks” question affirmatively, all household members have access to public health care.

⁴ Another way of conceptualizing PDI is regarding pensions as savings for retirement. Then, pension income is consumption of previous savings by retirees, and social security contributions are savings for the future. In other words, PDI can also be regarded as market income and starting point for the analysis. We prefer to document the changes in pensions separately from market income given their primary role in re-distribution in Turkish system. See Sections 3.2 and 4.3 for more details.

⁵ The only difference between TURKSTAT and Lustig (2018) definitions of disposable income is that in Lustig (2018), imputed wealth taxes are also deducted from gross income. In Turkey, only sizeable wealth tax that can be estimated from household surveys is the annual motor vehicle tax (MTV after the Turkish acronym).

⁶ Alternatively, we scale down education and health in-kind transfers by a certain amount each year to account for the discrepancy between estimated total disposable incomes from HBS and reported total disposable incomes in National Accounts (Lustig and Higgins 2013). In-kind transfers to households are reduced by 31.1% in 2003, 26.5% in 2007, 20.3% in 2011, 25.7% in 2015, and 18.7% in 2019. We obtain these figures (for 2011, 2015, and 2019) by comparing total disposable income in HBS to disposable income minus Gross Operating Surplus from National Accounts. As a result, estimated Gini coefficients are generally 0.01 point higher compared to the main estimates. 2003: 0.401 instead of 0.389; 2007: 0.347 instead of 0.337; 2011: 0.355 instead of 0.347; 2015: 0.376 instead of 0.361; and 2019: 0.335 instead of 0.325.

⁷ Supporting Information S1: Appendix C presents the comparisons of our estimates with recent tax incidence studies on Turkey. Supporting Information S1: Table C1 presents disposable income inequality estimates. All the studies estimate disposable income Gini around 0.37–0.40 after the early 2000s. Our estimates are in the middle of the pack. Supporting Information S1: Table C2 compares our estimates for 2015 and 2019 with Cuevas et al. (2020) and Ünal (2022), respectively, which also employ CEQ methodology. Our inequality estimates are close to Cuevas et al. (2020), except for final income and lower than Ünal (2022) estimates. Supporting Information S1: Table C3 presents comparison of market, after tax before transfer, and after tax and transfer incomes with various studies. These studies vary by methodology and data set. Nevertheless, our estimates are again in the middle of the pack; and for market and after tax before transfer are close to Yılmaz (2016).

⁸ In Supporting Information S1: Appendix B, we address the potential measurement issues, especially for 2007 and 2019. We also provide alternate estimates in Supporting Information S1: Figure B4B. After correcting for potential measurement errors for top 5% in 2007 and 2019, 2011 became the least unequal year in most types of income. Nevertheless, our qualitative findings for the impact of taxes and transfers are the same: Their equalizing impact increased over the years. Alternatively, we also impute missing capital incomes to households with respect to wealth distribution utilizing Ceritoğlu et al. (2023) findings. If we correct the HBS data set for missing capital incomes inequality is higher for every definition of income (see Supporting Information S1: Figure B5 and accompanying discussion). However, findings do not change qualitatively.

⁹ Holland (2016, 233) defines forbearance as “intentional and revocable government leniency toward violations of law.”

¹⁰ Under-reporting and even total avoidance of some forms of capital income such as rental income is probably even larger.

¹¹ Pension system in Turkey is criticized from both sides: low pensions and potential adverse impacts on labor force participation. Canelas and Niño-Zarazúa (2022) evaluate the impact of *Renta Dignidad* in Bolivia, a modest noncontributory pension program, on labor market participation and find no adverse effect on adult population.

¹² Total fertility declined from 2.94 in 1992 to 2.32 in 2001 during the decade before AKP came to power and continued to decline to 2.15

in 2012 (World Bank 2023). As of 2019, total fertility rate further declined to 1.97.

¹³ We convert nominal incomes to real incomes at 2019 prices with CPI by multiplying each year's nominal values by the following coefficients: 2003=4.231, 2007=3.022, 2011=2.193, 2015=1.634, and 2019=1. We use World Bank (2023) PPP for private consumption which was 2.11 TL per dollar for 2019. So \$10 PPP is equal to 21.1 TL per day in 2019 prices.

References

- Akçay, Ü. 2019. "Türkiye'de Neoliberal popülizm, otoriterleşme Ve Kriz [Neoliberal Populism, Authoritarianism and Crisis in Turkey]." *Toplum Ve Bilim*: 147: 46–70.
- Akkoc, U., S. Gemicioglu, and B. Kızıllırmak. 2023. "Indirect Tax Burden and Progressivity of Indirect Taxes in Turkey." *Sosyoekonomi* 31, no. 55: 321–346. <https://doi.org/10.17233/sosyoekonomi.2023.01.17>.
- Albayrak, Ö. 2010. "Redistributive Effects of Indirect Taxes in Turkey 2003." *Ankara Üniversitesi Sosyal Bilimler Dergisi* 2, no. 1: 123–161.
- Albayrak, Ö. 2011. "Finansal Krizde Uygulanan Vergi Politikalarının Gelir Dağılımı Etkileri: 2004-2009 [The Impact of Tax Policies on Income Distribution During Financial Crisis, 2004-2009]." *Ankara Üniversitesi SBF Dergisi* 66, no. 2: 1–34.
- Albayrak, Ö., S. Bahçe, and A. Pınar. 2016. "Türkiye'de Daha Eşitlikçi Vergi Politikaları İçin Mikrosimülasyon Analizi: 2003-2013 [A Microsimulation Analysis for more Equitable Tax Policies in Turkey: 2003-2013]." *Ankara Üniversitesi SBF Dergisi* 71, no. 1: 249–278.
- Aytaç, S. E. 2014. "Distributive Politics in a Multiparty System: The Conditional Cash Transfer Program in Turkey." *Comparative Political Studies* 47, no. 9: 1211–1237.
- Boratav, K. 2006. "Gelir Dağılımı Üzerine Zevzeklikler. [Prattling on Income Inequality]." *Sol [Left]*. Published December 31. <https://arsiv.sol.org.tr/?yazino=6709>.
- Borck, R. 2007. "Voting, Inequality and Redistribution." *Journal of Economic Surveys* 21, no. 1: 90–109.
- Canelas, C., and M. Niño-Zarazúa. 2022. "Informality and Pension Reforms in Bolivia: The Case of Renta Dignidad." *Journal of Development Studies* 58, no. 7: 1436–1458.
- Ceritoğlu, E., S. M. Cilasun, M. Küçükbayrak, and Ö. Sevinç. 2023. "Household Portfolios in Türkiye: Results From the Household Finance and Consumption Survey." *Central Bank Review* 23, no. 4: 100132.
- Cuevas, P. F., L. Lucchetti, and M. Nebiler. 2020. "What Are the Poverty and Inequality Impacts of Fiscal Policy in Turkey?" The World Bank Policy Research Working Group No 9300. <https://documents1.worldbank.org/curated/en/785891593010082785/pdf/What-Are-the-Poverty-and-Inequality-Impacts-of-Fiscal-Policy-in-Turkey.pdf>.
- Dildar, Y. 2022. "The Effect of Pronatalist Rhetoric on Women's Fertility Preferences in Turkey." *Population and Development Review* 48, no. 2: 579–612.
- DİSK-AR. 2021. "İşçiler büyümeden pay almıyor [Workers Are Not Benefitting From Growth]." Research Center of Confederation of Progressive Trade Unions of Turkey. Published June 2. <https://arastirma.disk.org.tr/?p=6847>.
- Dorlach, T. 2015. "The Prospects of Egalitarian Capitalism in the Global South: Turkish Social Neoliberalism in Comparative Perspective." *Economy and Society* 44, no. 4: 519–544.
- Enami, A., U. Gentilini, P. Larroulet, et al. 2023. "Universal Basic Income Programs: How Much Would Taxes Need to Rise? Evidence for Brazil, Chile, India, Russia, and South Africa." *Journal of Development Studies* 59, no. 9: 1443–1463.
- Enami, A., N. Lustig, and R. Aranda. 2017. "Analytic Foundations: Measuring the Redistributive Impact of Taxes and Transfers." CGD Working Paper 446. Center for Global Development.
- Esen, B., and Ş. Gumuscu. 2016. "Rising Competitive Authoritarianism in Turkey." *Third World Quarterly* 37, no. 9: 1581–1606.
- Gemicioğlu, S., B. Kızıllırmak, and U. Akkoç. 2024. "Relative Contributions of Indirect Taxes and Inflation on Inequality: What Does the Turkish Data Reveal?" *Review of Development Economics* 28, no. 1: 286–309.
- Gökşen, F., G. Özertan, İ. Sağlam, and Ü. Zenginobuz. 2008. "Impacts of the Tax System on Poverty and Social Exclusion: A Case Study on Turkey." *New Perspectives on Turkey* 38: 159–179.
- Gürcan, A. E. 2015. "The Problems of Religious Education in Turkey: Alevi Citizen Action and the Limits of ECtHR." <https://ipc.sabanciuniv.edu/Content/Images/CKeditorImages/20200323-14034543.pdf>.
- Hillen, S., and N. D. Steiner. 2025. "Rising Inequality and Public Support for Redistribution." *European Journal of Political Research* 64: 442–455.
- Holland, A. C. 2016. "Forbearance." *American Political Science Review* 110, no. 2: 232–246.
- Karacimen, E. 2015. "Interlinkages Between Credit, Debt and the Labour Market: Evidence From Turkey." *Cambridge Journal of Economics* 39, no. 3: 751–767. <https://doi.org/10.1093/cje/beu016>.
- Kenworthy, L., and J. Pontusson. 2005. "Rising Inequality and the Politics of Redistribution in Affluent Countries." *Perspectives on Politics* 3, no. 3: 449–471.
- Korpi, W., and J. Palme. 1998. "The Paradox of Redistribution and Strategies of Equality: Welfare State Institutions, Inequality, and Poverty in the Western Countries." *American Sociological Review* 63, no. 5: 661–687. <https://doi.org/10.2307/2657333>.
- Lustig, N., ed. 2018. *Commitment to Equity Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty*. Brookings Institution Press.
- Lustig, N. 2020. *The 'Missing Rich' in Household Surveys: Causes and Correction Approaches*. Vol. 520. ECINEQ, Society for the Study of Economic Inequality.
- Lustig, N., and S. Higgins. 2013. *Commitment to Equity Assessment (CEQ): Estimating the Incidence of Social Spending, Subsidies, and Taxes-Handbook*. Tulane University, Department of Economics.
- Mollahaliloğlu, S., H. Özbay, H. Özgen, et al. 2006. *Türkiye Ulusal Sağlık Hesapları Hanehalkı Sağlık Harcamaları 2002–2003 [Turkey National Health Accounts Household Health Expenditure 2002–2003]*. Ministry of Health.
- MONE. 2008. "Ministry of Education National Education Statistics for Formal Education 2007–2008."
- Oyvatt, C. 2021. "Büyüme kimin için? [Growth for Whom?]" *gazeteduvar*. Published June 15. <https://www.gazeteduvar.com.tr/buyume-kimin-icin-haber-1525286>.
- Özen, İ. C. 2018. "Early Riser, Late Bloomer: Contextualizing Turkish Health Achievements in the Last 50 Years Vis-à-Vis China and the Global Picture of Development." *New Perspectives on Turkey* 58: 35–92.
- Pınar, A. 2004. "Vergileri Kim Ödüyor ve Kamu Harcamalarından Kimler Yararlanıyor? [Who Are Paying the Taxes, Who Are Benefitting From Public Spending?]." TESEV.
- Revenue Administration. 2021. "Annual Reports Portal." Accessed March 2021. <https://www.gib.gov.tr/kurumsal/stratejik-yonetim/faaliyet-raporlari>.
- Saydam, A. 2018. "The Incompatibility of the Pension System and the Labour Market in Turkey." *Journal of Balkan and Near Eastern Studies* 20, no. 4: 332–348.

Social Security Administration. 2021. "Work Place and Insured Person Statistics Portal." Accessed March 2021. <https://www.sgk.gov.tr/Istatistik/Yillik/fcd5e59b-6af9-4d90-a451-ee7500eblcb4/>.

Somer, M. 2016. "Understanding Turkey's Democratic Breakdown: Old vs. New and Indigenous vs. Global Authoritarianism." *Southeast European and Black Sea Studies* 16, no. 4: 481–503.

Sönmez, M. 2013. "TÜİK bu yalanı araştırma diye satma artık [TURKSTAT's Inequality Statistics Are Lies, Not Statistics]." Sendika.org. Published September 24. <https://sendika.org/2013/09/tuik-bu-yalani-arastirma-diye-satma-artik-mustafa-sonmez-yurt-141804>.

Sözen, Y. 2020. "Studying Autocratization in Turkey: Political Institutions, Populism, and Neoliberalism." *New Perspectives on Turkey* 63: 209–235.

Tekgüç, H. 2018. "The Effect of Social Assistance and Housing on Poverty and Inequality in Turkey." *South European Society and Politics* 23, no. 4: 547–570.

Tekgüç, H., and Z. N. Atalay-Güneş. 2015. "Sağlıkta Bireysel Sorumluluk ve Rekabet Toplam Maliyetleri Neden Düşürmez? [Why Personal Responsibility and Competition Does Not Reduce Total Spending in Healthcare?]." *Amme İdaresi Dergisi* 48, no. 1: 141–171.

Tekgüç, H., E. B. Ünsal, and A. E. Yeldan. 2022. "Poverty and Income Distribution Incidence of the COVID-19 Outbreak: Investigating Socially Responsible Policy Alternatives for Turkey." *Southeast European and Black Sea Studies* 23, no. 2: 339–363.

Tuğal, C. 2012. "Fight or Acquiesce? Religion and Political Process in Turkey's and Egypt's Neoliberalizations." *Development and Change* 43, no. 1: 23–51.

TURKSTAT. 2021a. "TURKSTAT Education Statistics Portal." Accessed February 2021. <https://data.tuik.gov.tr/Kategori/GetKategori?p=egitim-kultur-spor-ve-turizm-105&dil=1>.

TURKSTAT. 2021b. "TURKSTAT Health and Social Protection Statistics Portal." Accessed September 2021. <https://data.tuik.gov.tr/Kategori/GetKategori?p=saglik-ve-sosyal-koruma-101&dil=1>.

TURKSTAT. 2023. "TURKSTAT Labor, Unemployment and Wage Statistics Portal." Accessed August 2023. <https://data.tuik.gov.tr/Kategori/GetKategori?p=istihdam-issizlik-ve-ucret-108&dil=1>.

Ünal, İ. B. 2022. "Türkiye'de Maliye Politikasının Gelir Eşitsizliği Üzerine Etkilerinin İncelenmesi." https://www.researchgate.net/profile/Ibrahim-Uenal-5/publication/362505736_Turkiye'de_Maliye_Politikasinin_Gelir_Esitsizligi_Uzerine_Etkilerinin_Incelenmesi/links/62ed3c6745322476937fe5cc/Tuerkiyede-Maliye-Politikasinin-Gelir-Esitsizligi-Uezerine-Etkilerinin-Incelenmesi.pdf.

World Bank. 2023. "World Bank Databank World Development Indicators." Accessed November 2023. <https://databank.worldbank.org/source/world-development-indicators>.

Yardım, M. S., and S. Uner. 2018. "Equity in Access to Care in the Era of Health System Reforms in Turkey." *Health Policy* 122, no. 6: 645–651.

Yıldırım, H. H. 2017. "15 Years of AK Party Rule: An Evaluation in Terms of Health and Health Policies." *Insight Turkey* 19, no. 2: 167–188.

Yılmaz, E., and S. Sefil-Tanşver. 2019. "Income Distribution and Redistribution." *Journal of Economic Issues* 53, no. 4: 1103–1125.

Yılmaz, H. 2016. "Türkiye'de Gelir Üzerinden Alınan Vergilerin Yeniden Dağıtım Etkisi: 2002–2013 Dönemi. TÜBİTAK SOBAG 214K014 Sonuç Raporu." Accessed July 2018. <http://tubitakvergi.an-kara.edu.tr/Rapor.pdf>.

Yılmaz, H., M. A. Özyer, and S. İ. Özyer. 2019. "Redistribution Effects of Taxes on Expenditure: The Case of Turkey (2002–2013)." *Hacienda Pública Española/Review of Public Economics* 230, no. 3: 11–40.

Supporting Information

Additional supporting information can be found online in the Supporting Information section.