Racial Inequality and Redistribution in Post-Apartheid South Africa

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Abstract

We study post-Apartheid inequality dynamics in South Africa using a new microdatabase that combines survey, tax, national accounts, and budget data from 1993 to 2019. Until 2005, pretax inequality rose, racial disparities widened, and redistribution stagnated. Thereafter, pretax inequality fell back toward its 1993 level, while major expansions in tax-and-transfer progressivity sharply reduced posttax inequality. Rapid growth of top Black incomes contributed to halving the White-to-Black pretax income ratio and shifted 20% of taxes from Whites to top Black earners. Despite reaching its lowest point in history in 2019, the racial gap remains extreme by international standards, even after redistribution.

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1 Introduction

Following the abolishment of all discriminatory laws, South Africa's first universal democratic election took place in 1994 and marked the end of centuries of institutions that legally favored White settlers and their descendants at the expense of other racially identified groups. This radical transformation held great promise for the previously oppressed populations, who were becoming legally entitled to prosperity. In the following decades, major reforms were carried out by successive governments, with the objective of reducing the extreme levels of inequality inherited from Apartheid. In this paper, we investigate whether South Africa's post-Apartheid transformations have met the expectations of the early 1990s. Our objective is to assess to what extent economic growth and policy reforms have contributed to reducing inequality in general, and racial inequality in particular.

Any attempt to address this question must combine three sources of information: the national accounts to measure macroeconomic aggregates, administrative budget data to track taxes and transfers, and microdata to distribute them. To reconcile these sources in a systematic manner, we apply the Distributional National Accounts (DINA) method first developed by Piketty et al. (2018). Our starting point consists in all income and expenditure surveys, which we link with historical income tax tabulations to better capture top incomes. We combine them with national accounts series to construct pretax income inequality statistics consistent with macroeconomic growth. We then move from pretax to posttax income by allocating taxes and transfers in a particularly detailed way. We microsimulate the personal income tax using historical tax schedules. We allocate indirect taxes by accounting for key features of the tax system such as VAT-exempt goods, the types of expenditure facing excise taxes, the heterogeneous effects of trade duties through variations in import densities by type of good, and expenditure made in the informal sector (following Bachas et al. (2024)). We also account for domestic private transfers between households, a prevalent redistributive mechanism in developing countries (Olken and Singhal, 2011). We distribute social grants consistently with eligibility rules and the

number of recipients reported in administrative data. Finally, our estimates also model the distributional incidence of public services, drawing on related work (Gethin, 2025). The resulting microdatabase covers the joint distribution of income, expenditure, wealth, taxes, and transfers in a way consistent with macroeconomic growth, administrative budget data, and racial population statistics from 1993 to 2019.

Two distinct periods emerge from our results. Until the mid-2000s, real net national income (NNI) per capita rose by 35%. Factor income inequality (before any form of government redistribution) also increased: the Gini coefficient grew from 0.80 to 0.86. The real factor income of the top 10% increased by more than 140%, while that of the the bottom 50% dropped by almost 40%. The White-to-Black per capita factor income ratio also worsened, from 15.7 in 1993 to 17 in the mid-2000s. During this first period, the tax-and-transfer system did not become more progressive: the introduction of large cash transfer programs in the early 2000s was offset by simultaneous and almost proportional reductions in health and education spending. Yet, even during that first period, government redistribution was substantial and progressive overall. Thanks to progressive direct taxes, even more progressive in-kind transfers (health and education in particular), and despite regressive indirect taxes, posttax inequality was lower than pretax inequality by almost 17 points of Gini coefficient in 1993. The tax-and-transfer system also strongly reduced racial disparities: the White-to-Black per capita income ratio was almost 50% lower in terms of posttax income than in terms of pretax income.

The second period starts in the late 2000s. It is strikingly different from the previous one. Real NNI per capita stagnated while factor income inequality decreased, driven by a stabilization of top 10% incomes and a rapid catch-up by the bottom 90%. By 2019, however, factor income inequality remained slightly higher than it was in 1993, with a Gini coefficient of 0.81 and a top 10% income share of 70%. As a result, South Africa still stands today as the most unequal country for which comparable statistics are available (see Figure 1). On the other hand, the White-to-Black per capita factor income ratio dropped

substantially, from 17 in the mid-2000s to 9 in 2019. We estimate that almost 50% of this reduction was due to the exceptional growth of top 10% Black incomes (relative to growth of lower deciles). Despite reaching its lowest point in history, the White-to-Black factor income ratio remains extremely high. As a comparison, the White-to-Black earnings ratio was about 1.3 in the United States in the mid-2010s (Derenoncourt and Montialoux, 2021) and the White-to-Black wealth ratio was about 6 in 2019 (Derenoncourt et al., 2024). Our new database allows us to further illustrate this divide by analogy with international disparities: in 2019, average per capita factor income among Whites was close to the average per capita national income of Denmark, while average income among Black South Africans was close to that of Bangladesh. Disparities are striking as well among Black South Africans, with average income in the top 10% comparable to average income in Italy, while the average income of the bottom 90% is similar to that of Zimbabwe.

In contrast with the first period, the tax-and-transfer system became more progressive due to the combination of the rise of the personal income tax and the increase of cash, health, and education transfers. Posttax inequality thus decreased faster than pretax inequality, by about 6 points of Gini over the 1993-2019 period. By 2019, the top 10% gave away the equivalent of 20% of NNI through the tax-and-transfer system, while the middle 40% and bottom 50% received 6% and 14%, respectively. However, the tax-and-transfer system has not become more efficient at reducing racial disparities: the White-to-Black ratio has declined at about the same speed in terms of pretax and posttax income. This is because redistribution among Black South Africans has also increased: the boom of top Black incomes has led to an increasing share of the Black population becoming eligible to direct taxes and excluded from social transfers. As a result, the net contribution of the top 10% of Black individuals increased from 0.4% in 1993 to -6.5% of NNI in 2019. Over the same period, net transfers received by the bottom 90% of Black South Africans increased from 12.7% to 19%. The net transfer received by the Black South Africans altogether remained stable around 13%. In other words, the rise of redistribution has not

contributed to reducing racial disparities because it has been primarily driven by changes in redistribution within the Black population.

This article contributes to our understanding of the long-run dynamics of racial inequalities. Research on the evolution of racial disparities in the United States has focused on measuring trends in income (Kuhn et al., 2020), earnings (Bayer and Charles, 2018), or wealth (Derenoncourt et al., 2024). A number of studies explore the racial incidence of specific taxes or transfers such as property taxes (Avenancio-León and Howard, 2022), tax breaks (Cronin et al., 2023), roads (Currier et al., 2023), or public health insurance (Wallace et al., 2021) Similarly for South Africa, several studies have documented the evolution of the racial income gap (Leibbrandt et al., 2009, 2010, 2012) and the incidence of specific policies in a given year (Van der Berg et al., 2009; Maboshe and Woolard, 2018). To the best of our knowledge, this paper is the first to assess the overall incidence of all tax-and-transfer policies on racial inequality and to document its evolution over time.

Our paper also relates to the literature on the distribution of economic growth. Still very little is known of how inclusive economic growth has been in the developing world. The production of credible statistics has proven notoriously hard because of major differences in data sources, methods, and research communities (Deaton, 2005). Recent advances in Distributional National Accounts have provided new tools to study these questions (Piketty et al., 2018), but studies outside of the developed world remain scarce and restricted to pretax income.[1] In this paper we construct the first detailed measures of government redistribution and its evolution over time for an emerging economy.[2]

The rest of the paper is organized as follows. Section 2 covers data sources and

[1] Studies on Europe and the United States include Piketty et al. (2018); Garbinti et al. (2018); Guzzardi et al. (2024); Blanchet et al. (2022); Bruil et al. (2022). Studies on the developing world include De Rosa et al. (2024); Piketty et al. (2019); Khalid and Yang (2021); De Rosa et al. (2024). With the exception of De Rosa et al. (2024), who construct simplified measures of posttax income in Latin America, no study on developing countries covers taxes and transfers. Fisher-Post and Gethin (2025) construct even more simplified measures of redistribution for most countries in the world, which we use for broad comparisons in Figure 1.

[2] Our work also relates to recent efforts made by the Commitment to Equity institute at measuring the incidence of taxes and transfers in developing countries (see Inchauste and Lustig (2017) on South Africa). Unlike our analysis, these studies typically cover only one year, rely exclusively on surveys, are not consistent with national accounts, and exclude key components of government revenue and spending.

methodology. Section 3 focuses on the distribution of factor income. Section 4 studies the distributional incidence of taxes and transfers. Section 5 concludes.

2 Data and Methodology

2.1 Conceptual Framework: Distributional National Accounts

We are interested in distributing the consumption, income, and wealth aggregates codified in the United Nations' System of National Accounts (UN SNA), which are routinely estimated by statistical institutes and used to estimate and decompose macroeconomic growth. These include the net national income, household final consumption expenditure, and household net worth.

Net National Income. Our benchmark income concept is net national income. National income equals GDP minus capital depreciation plus net foreign income. It is the sum of the primary incomes of the different sectors of the economy: households, corporations, and the government (see Table 1). The primary income of households can itself be decomposed into four main components: compensation of employees, mixed income, net property income, and the imputed rents of owner-occupiers. The primary income of corporations corresponds to the net benefit that companies retain after having paid suppliers, employees, shareholders, and taxes, and that we refer to interchangeably as "retained earnings" or "undistributed profits". The primary income of the general government is the sum of taxes less subsidies on production and imports (i.e., indirect taxes collected during the production process) and of its net property income.

Distributional Income Concepts. Following the DINA framework (Alvaredo et al., 2020), we consider three main income concepts to distribute national income at the individual level. Factor national income is the sum of all income flows accruing to

individuals before any tax or transfer. Pretax national income equals factor income after the operation of unemployment and pension systems, that is, after payment of social contributions and distribution of pension and unemployment benefits. Posttax national income equals pretax income after deduction of all taxes (including indirect taxes and the corporate income tax), payment of all kinds of transfers (including collective government expenditure in health, education, defense etc.), and allocation of the general government deficit of surplus. By definition, individual factor incomes, pretax incomes, and posttax incomes all add up to the net national income. In addition to these concepts we also study disposable income, which we define as pretax income minus all direct taxes, plus all cash transfers. As total direct taxes always exceed total cash transfers in South Africa, aggregate disposable income is strictly inferior to net national income.[3]

Distributional Consumption and Wealth Concepts. In addition to income, we also distribute consumption and wealth concepts consistent with national accounts definitions. Household final consumption expenditure (HFCE) is the sum of all purchases made by resident households. The net saving of households is the difference between net disposable income (posttax income excluding collective government expenditure) and HFCE. Personal wealth is the net wealth of the households sector, that is, the sum of all financial and non-financial assets held by households, minus their financial liabilities.

2.2 From Reported Household Income to Factor National Income

To distribute factor income, we first combine survey and tax data to measure the distribution of reported household income (wages, property income, and mixed income). We then allocate unreported income components (imputed rents, property income attributed to policy insurance holders, undistributed profits, and government primary income) to indi-

[3]In Appendix Figure A.13, we compare the evolution of overall inequality and racial inequality in South Africa in terms of pretax and posttax income, as well as in terms of disposable income before versus after accounting for the underrepresentation of top incomes and missing national income components. We provide more details on these two methodological steps in the next sections.

viduals. Table 1 outlines the methodology used to distribute each of these subcomponents of factor national income.

Harmonization of Survey Data. Household surveys represent our main data source to distribute income at the individual level. Six surveys collecting detailed information on all components of household income and expenditure have been conducted in South Africa since 1993.[4] We combine these surveys to build a microfile covering the distribution of "reported household income" every year since 1993.

Combination of Survey and Tax Data. Surveys can be well-suited to measure income and expenditure at the bottom of the distribution, yet they are well-known to underestimate inequality at the top end (e.g., Czajka (2020), Blanchet et al. (2022)). To better capture the levels and dynamics of top incomes, we combine our survey microfile with tabulated income tax returns available from the South African Revenue Service. The available tabulations report the number of taxpayers and total taxable income by income tax bracket every year since 2002. We correct the survey data with the tax data in four steps. First, we approximate full distributions from the tax tabulations using Generalized Pareto Interpolation (Blanchet et al., 2017). Second, we define a "taxable income" concept in the survey data that is comparable to that observed in the tax data (excluding in particular dividends, which are not subject to personal income tax in South Africa). Third, we calibrate the survey microdata by rescaling the underestimated upper tail to the distributions derived from tax tabulations. This method allows preserving the survey microdata and the dependency between its different variables (such as income components and sociodemographics), while enforcing that the survey becomes fully representative of top taxable incomes. Finally, we extrapolate the correction to the 1993-2001 period, for which no tax data is available, assuming that top incomes were underrepresented during

[4]These are the 1993 Project for Statistics on Living Standards and Development (PSLSD), the 2000, 2005, and 2010 Income and Expenditure Surveys (IES), and the 2008 and 2015 Living Conditions Surveys (LCS). We decide to exclude the 1995 IES survey due to data harmonization issues.

this period to the same extent as in 2002.

Rescaling of Household Income Components to National Accounts Totals. Having combined survey and tax data, we now have a microfile covering reported household income for the full South African population since 1993. However, for various reasons linked to sampling, mismeasurement of income flows, and non-response, income aggregates reported in this microfile do not necessarily match those recorded in the national accounts. Following other DINA studies, we rescale proportionally each of the five household income flows reported in survey and tax data—compensation of employees, mixed income, rental income, interest, and dividends—to their corresponding national accounts totals as measured in the South African Reserve Bank (SARB) historical statistical series. This step only has minor distributional implications at the bottom of the distribution, but it leads to significantly increasing the income share of the top 1%. This is because capital incomes, in particular interest and dividends, are both substantially underreported in household surveys and mostly absent from South African income tax data (Chatterjee et al., 2022).

Imputed Rents. The imputed rents of owner-occupiers represent about 3% of national income. Imputed rents are not recorded consistently in South African surveys as such, but income surveys have asked households to give an approximate value of the value of their home since 1993. We use this information to distribute imputed rents proportionally to the market value of owner-occupied housing wealth.

Other property income. Other property income, also referred to as property income attributed to insurance holders and pension entitlements, corresponds to investment income indirectly received by individuals through their ownership of unmatured insurance and pension assets. Accordingly, we distribute it proportionally to pension and life insurance assets, estimated by combining data on wages, social contributions, and self-

reported wealth data from the National Income Dynamics Study (see Chatterjee et al. (2022)). This component represents a significant share of national income in South Africa (6% in 2019), where private pensions, life insurance policies, and investment funds are widespread and have been growing in the past decades.

Interest Paid by Households. Household debts in the form of mortgages and other loans are significant in South Africa (53% of national income in 2019), and particularly widespread at the bottom of the wealth distribution (Chatterjee et al., 2022). As a result, interest paid by households represents a sizable component of national income, reaching -5% of NNI in 2019. Data on debt balances have been recorded in income surveys since 1993, but debt repayments are only partially and inconsistently measured. To avoid artificially creating too many households with negative income, we choose to distribute interest paid proportionally to factor income among individuals who declare having unpaid debts.

Corporate Undistributed Profits. Undistributed profits correspond to profits that are kept within the company rather than distributed to shareholders as dividends. These income flows ultimately increase the wealth of shareholders and therefore represent a source of income to them. We thus allocate retained earnings proportionally to stock ownership, including both directly held shares and shares held indirectly through pension funds. We only distribute the share of retained earnings attributable to the private domestic sector, hence excluding that held by the government—which is included in government property income.

Taxes less Subsidies on Production and Imports. We allocate the primary income of the government proportionally to factor income, assuming that this component of national income is distributionally neutral. This assumption is meaningful to the extent that one could replicate our entire analysis by relying on a definition of net national income at

factor cost (instead of market prices), excluding indirect taxes and subsidies from the final measure of output. Our inequality series is thus insensitive to adopting one or the other of these approaches to national accounting.

Remaining components of factor national income. The remaining components of national income (3 % of NNI in 2019) mainly include government and foreign shares of corporate retained earnings, as well as other small income flows such as miscellaneous government transfers. In the absence of better information on the incidence in these items, we assume for simplicity that they are distributionally neutral and allocate them proportionally to factor income.

2.3 From Factor National Income to Pretax National Income

To recover pretax income from factor income, we remove all pension and unemployment contributions from individual income and we add all corresponding pension and unemployment benefits. This has only minor distributional incidence in South Africa, given that private pension benefits are received by a small share of the population and that the unemployment insurance system only redistributes a tiny fraction of national income (see Table 1 and Figure A.2 panel (D)) .

Pension Contributions. Contributions to private pension plans (6% of national income) are recorded in income surveys, so we directly deduct them from individual factor incomes.

Pension Benefits. Private pension benefits (3% of national income) are also recorded in income surveys. However, these surveys tend to significantly underestimate the share of adults receiving private pension income (2-3% in income surveys vs. 5-6% according to administrative data). We use predictive mean matching to impute incomes to individuals declaring no pension income but with characteristics similar to those who do, in such a way that the total number of pension income recipients becomes exactly equal to that

observed in administrative data sources. This ensures that our microfile is representative of what we know about the actual number of recipients of pension benefits in South Africa, while preserving the observed relationships between pension income and the other covariates recorded in the surveys.

Unemployment Insurance Contributions. Unemployment insurance contributions are set at a fixed rate of 2% of gross wage in South Africa and capped at a maximum amount in Rand. About 25% of adults contribute to the Unemployment Insurance Fund (UIF), collecting some 0.4% of national income in 2019. UIF contributors are well identified in surveys, so we directly impute contributions based on statutory rules.

Unemployment Insurance Benefits. Unemployment insurance benefits are only available to adults having previously made monthly contributions to the UIF. This explains why they only cover a small fraction of the population (1.9% in 2019) and represent only 0.4% of national income. Unemployment benefits and beneficiaries are recorded in income surveys but are typically underrepresented. As in the case of private pension income, we therefore impute UIF benefits to additional recipients and we proportionally rescale the value of these benefits, so as to perfectly match both the official number of recipients and total UIF expenditure recorded in administrative data sources.

Pension and Unemployment Deficits or Surpluses. To ensure that pretax national income equals factor national income, we have to distribute the surpluses or deficits of the pension and unemployment systems. Following other DINA studies, we distribute 50% of the gap between contributions and benefits to contributors proportionally to contributions paid, and 50% to recipients proportionally to benefits received. This amounts to assuming that the burden of the deficit (or the benefits of the surplus) will eventually be shared 50/50 by contributors and recipients.

Private transfers. Finally, we account for the redistributive incidence of domestic monetary transfers between households. As discussed by Olken and Singhal (2011), inter-household transfers can play a significant redistributive role in low- and middle-income countries. Using information collected in the income and expenditure surveys, we measure transfers made and received at the household level and harmonize the two so that they are equal in aggregate. We exclude *foreign* private transfers (remittances) as well as *in-kind* private transfers because of inconsistent measurement across surveys. As illustrated in Appendix Figure A.2 panel (C), private domestic monetary transfer account for a small yet increasing share of national income over the period (from 1.5% to 2.5%).

2.4 From Pretax National Income to Posttax National Income: Taxes

To move from pretax income to posttax income, we start by deducting all taxes paid (see Table 2). These include all direct taxes (including the personal income tax and the corporate income tax) and all indirect taxes (including the Value Added Tax and excise duties).

Personal Income Tax. The personal income tax (PIT) is the tax collecting the highest share of government revenue in South Africa, amounting to 11% of national income in 2019. We microsimulate the income tax at the individual level, for each year since 1993, exploiting information on statutory rules, thresholds, and marginal tax rates collected from historical administrative sources.[5] As our microfile is calibrated on tabulated income tax returns, it is perfectly representative of taxable incomes at the top. It is therefore fully consistent with administrative data, both in terms of the number of taxpayers and total income tax receipts.

[5]Statutory rules are well documented and regularly reported in technical notes produced by SARS or the SARB. See South African Reserve Bank (2025) for a recent list of all main fiscal parameters from 1979 to 2025.

Corporate Income Tax. The corporate income tax (CIT) is the second largest direct tax on income in South Africa (6% of national income in 2019). The CIT is paid on corporations' profits, so we distribute it similarly to retained earnings, that is, proportionally to directly and indirectly held corporate equity.

Other Direct Taxes on Income and Wealth. Other direct taxes on individual income and wealth represent a small fraction of national income (1.7% in 2019). We distribute the dividends tax (0.8% of NNI), a flat tax of 20% paid by individuals on dividends received from South African companies, proportionally to dividends received. The Skills Development Levy (0.4% of NNI) is a flat tax of 1% paid on the wages of employees registered with the UIF, so we impute it directly based on rules. We allocate the remaining direct taxes to their corresponding tax bases: transfer duties to housing wealth (0.2% of national income), the securities transfer tax to equity ownership (0.1%), the estate duty and the donations tax to net wealth (0.1%), and the remaining taxes on income to pretax income (0.1%).

Value Added Tax. The value added tax (VAT) is the largest indirect tax in South Africa, enforced at a standard rate of 15% and collecting 8% of national income in 2019. In line with DINA studies and with standard tax incidence analyses, we assume that the VAT is paid by consumers. However, we refine our VAT tax incidence model in two ways. First, we exclude 19 "basic food goods" , which are zero-rated and therefore not subject to VAT, as well as all other VAT-exempt goods and services (including housing rents, transport services, petrol products, educational expenditure, and financial services: see South African Reserve Bank (2019)). Household expenditure on each of these items has been recorded in all income surveys, so we can directly remove them from our consumption aggregate. Secondly, following Bachas et al. (2024), we exclude goods and services bought on the informal market, approximated by the type of store in which purchases occur. These two steps significantly mitigate the regressive impact of VAT, although not sufficiently to

make it progressive, given the particularly high gap between consumption and income at the bottom of the distribution and the small size of the informal sector in South Africa.

General Fuel Levy and Excise Duties. Other indirect taxes on domestic products include the general fuel levy (1.8% of NNI), other excise duties (1.1%), and other taxes on goods and services (0.3%). The general fuel levy is a tax on fuel consumption, so we distribute it proportionally to fuel and transport expenditure. Other excise duties correspond to taxes on tobacco and alcohol, paid at production, so we distribute them proportionally to spending on these two goods. Other taxes on goods and services include a number of other minor indirect taxes, which we distribute proportionally to overall household expenditure.

Taxes on International Trade. Import duties and other taxes on international trade together represent about 1.4% of national income. A simplified way to distribute these taxes would be to assume that they are borne by consumers as VAT. However, the nature of imported goods might differ from that bought by a typical consumer, leading to biased estimates. To correct for heterogeneity in consumption of domestic vs. imported goods, we use input-output tables published by Statistics South Africa to derive an estimate of import density by COICOP category of household expenditure. We then distribute taxes on international trade proportionally to import-density-corrected consumption.

Local Taxes The local government is generally absent from international statistics on South African public spending, mainly due to a lack of consolidated data on revenue and expenditure made by municipalities. We have digitized historical local government public finance statistics for the purpose of this paper, allowing us to shed new light on this additional layer of government redistribution.[6] Local government revenue in South Africa

[6]We combined various tables published by the National Treasury with Local Government Budgets and Expenditure Reviews from four sources. The first one are tables A2 published by the National Treasury, which cover operating expenditure by function in each of South Africa's municipalities from 2006 to 2019. The second one are tables A1 from the same source, which specifically cover expenditure made by municipalities for the provision of Free Basic Services. The third one are tables published in the 2008 Local Government Budgets and Expenditure Review, which cover total expenditure by municipality from 2003 to

mainly consists in property rates, service charges for the provision of electricity, water, and other services such as refuse removal, and transfers received from the central government. Since the latter are financed by central government revenue, we do not allocate them to individuals (doing so would lead to double counting, as transfers to municipalities are indirectly financed by national taxes). Property rates, electricity charges, and water charges are directly reported by households in income surveys, so we allocate budget totals proportionally to these reported values. We distribute the remaining components of municipal operating revenue proportionally to the total municipal tax burden of each individual, so as to match total revenue reported in municipal budgets.

Other Tax and Non-Tax Revenue. To reach total consolidated government revenue, we distribute the remaining tax and non-tax revenue proportionally to pretax income (i.e., in a distributionally neutral way). These include all other taxes not previously mentioned (less than 0.1% of national income), payments to the Southern African Customs Union (-1.2%), non-tax revenue (0.8%), and revenue collected by provinces and other public entities (2.4%).

2.5 From Pretax National Income to Posttax National Income: Transfers

Having removed all taxes from pretax income, we now allocate all government expenditure to individual incomes to reach posttax national income.

Direct Social Transfers. Social protection spending represents about 5% of NNI in South Africa, the majority of which consists in three social grants: the old age grant (1.8%), the child support grant (1.5%), and the disability grant (0.6%). The old age grant is a means-tested monthly benefit available to South Africans older than 60. The child support grant

2006. Finally, we digitize data on consolidated municipal operating expenditure by district council over the 1996–1999 period from the 2000 edition of the Local Government Budgets and Expenditure Reviews. Central government statistics already include transfers made by the central government to municipalities, so we remove this component from central government spending and add back local government spending to reach total general government expenditure.

is granted to a child's primary caregiver whose income falls below a specific threshold. The disability grant is provided to workers suffering from a permanent disability. As in the case of pension and unemployment benefits, data on social grants is available in income surveys, but the number of self-reported recipients tends to be lower than in administrative data (although only slightly). For consistency, we attribute social grants to additional eligible beneficiaries using a linear probability model, and we impute the value of grants received based on statutory rules, each year since 1993. This ensures that our microfile is fully consistent with both the number of grant beneficiaries and total government expenditure on grants.

Other In-Kind Transfers and Public Goods. We take the distribution of other government expenditure, including education, healthcare, transport infrastructure, police services, and other public goods from a companion paper (Gethin, 2026). This related paper combines various surveys and historical budget data to identify beneficiaries of public services and the corresponding distribution of public spending by function of government from 1993 to 2019.

Government Deficit. As usual in the literature, we assume that 50% of the general government deficit (6% of NNI in 2019) is borne by taxpayers proportionally to total taxes paid, and 50% proportionally to total transfers received.

2.6 Other Data Sources and Variables

Finally, we distribute consumption and wealth concepts consistent with national accounts definitions. We also exploit complementary sources to cover the pre-1993 period.

Household Expenditure. We distribute household final consumption expenditure by proportionally rescaling subcomponents of consumption reported in income surveys to their corresponding totals recorded in the national accounts, for each of the 12 COICOP

categories available in both micro and macro data. This allows us to document the joint dynamics of consumption and income at the individual level, as well as to derive estimates of net saving (net household disposable income minus HFCE) by income group that are consistent with macroeconomic figures.

Household Wealth. We combine survey data on income and wealth with households balance sheets statistics published by the South African Reserve Bank to add an estimate of household net worth and its composition to our microfile since 1993. We refer to our companion paper on wealth inequality for more information on data sources and methodology (Chatterjee et al., 2022).

Other Historical Data Sources Finally, we have compiled additional historical data sources to cover the pre-1993 period. Data on racial income gaps since 1917 come from Leibbrandt et al. (2009). Data on the racial composition of top income groups from historical income tax tabulations come from Alvaredo and Atkinson (2022).

3 The Distribution of Factor Income

3.1 Overall Inequality

The evolution of real national income per capita can be split into two periods: a growing phase between 1993 and 2008—accelerating in the early 2000s—and a stagnation phase between 2009 and 2019. This aggregate evolution nevertheless hides significant heterogeneity across income groups. During the expansion phase, the real average income of the top 10% increased by more than 140%, while that of the bottom 50% decreased by about 20% (Figure 2A). During the stagnation phase, these trends almost reversed: the top 10% stopped growing, while the bottom 50% grew to levels close to 120% of their 1993 level. National income growth has been predominantly negatively correlated with the

growth of the bottom 50%. As a result, inequalities increased after the end of apartheid and decreased after the financial crisis. Starting at 65% in 1993, the top 10% factor income share peaked at 75% in the late 2000s, then decreased back to 70%. The Gini coefficient followed a very similar trend. Throughout the period, the share of the bottom 50% has remained below 4% (Figure 2B). These observations illustrate well the fact that in an extremely unequal country such as South Africa, national income growth is essentially driven by the real income dynamics of top income groups and possibly uncorrelated with real income growth of the majority of the population. Overall, factor income inequality has remained at least as extreme as it was at the end of Apartheid in 1993.[7]

3.2 Racial Inequality

Race has been central in the organization of South African societies for centuries. Settlers, first coming from the Netherlands (starting in 1652) then from Great Britain (starting in 1795), progressively invaded territories occupied by the indigenous people (the Khoi, the San, then the Bantu), some of whom became indentured servants. Settlers also forcibly brought to the colony enslaved individuals originating from other countries (Malaysia, Madagascar, India). Strict racial segregation was enforced throughout colonization and continued despite the unification of the country as an independent British dominion in 1910 following the Boer wars. Even though South Africa was not a colony anymore, only individuals of European descent could vote (with some very limited exceptions in the Cape). The regime in place, largely dominated by "White" men, voted multiple discriminatory laws that paved the way to Apartheid.[8] The regime of apartheid then

[7] Apendix Figure A.3 shows that capital income has always been more prevalent at the top than at the bottom of the distribution. However, the share of labor income in top 1% total factor income has increased over time.

[8] As an illustration: the Mines and Works Act (1911) reserved skilled mining jobs for white workers only; the Natives Land Act (1913) prohibited Black South Africans from buying or owning land outside of designated "reserves" (about 7% of the land); the Natives Urban Areas Act (1923) restricted the presence of indigenous people in urban areas with a majority of "White"; the Immorality Act Criminalized sexual relations between "White" and "Black" people.

institutionalized a racial classification of the South African population that in some forms still survives today. The 1950 legal definition of race was imprecise, circular and incomplete, and exceptions could be granted, but its objective was to legally entrench and promote inherited discriminatory practices that established racial separation, within South Africa, between individuals of European descent (or "White" people), native Africans (or "Black" people), individuals originating from other part of the world ("Asians", mostly Indians in reality), and people whose documented ancestors belonged to at least two of the aforementioned categories ("Coloured").[9] Under such regime, people classified as "Black"—the vast majority—could not vote. They also could not marry people of other race, nor work, travel, buy land, or live where they wanted. With the end of Apartheid, all discriminatory laws were abolished as well as the official definition of races, yet the use of racial classification survived. Post-apartheid governments introduced race-based policies in an attempt to address the imbalances and injustices of the past.[10] Several government institutions collect this information, including the national statistical agency for its censuses.[11] All the surveys we use in this study thus contain information on the four racial categories listed above based on respondents' self-declarations. We rely on this self-declared information to classify people across racial groups. According to these surveys, whose sampling was based on censuses, Asians represented 2.6% of the population in 1993 and 2.1% in 2019, the Black population rose from 76% to 82%, the Coloured population remained roughly stable around 8%, and the White population decreased from 13% to 7% (see Table 3).

Figure 3 displays the evolution of the racial gap in terms of per-capita factor income

[9] In the Population act of 1950: Native "means a person who in fact is or is generally accepted as a member of any aboriginal race or tribe of Africa"; White "means a person who in appearance obviously is, or who is generally accepted as a white person, but does not include a person who, although in appearance obviously a white person, is generally accepted as a Coloured person"; Coloured are neither white, nor native. Hongkongers and Japaneses were later recognized as "honorary whites."

[10] For instance, the Employment Equity Act defines "Black people" as a generic term which means Africans, Coloured and Indians—but without defining the later.

[11] Since 2011, the census includes a fifth category "others," who account for about 0.5% of the population. Yet none of the surveys we use include this category.

from 1917 to 2019. We use our main series from 1993 onward and complete the period before using estimates from Leibbrandt et al. (2009).[12] Starting at 7 in 1917, the White-to-Coloured income gap peaked at almost 10 during Apartheid, then gradually decreased to 5.5 in 2019. The White-to-Asian ratio remained relatively stable around 5 until 1970, then decreased to 2.5 in 1993, and remained stable since then. Meanwhile, the White-to-Black income gap went under more rapid transformations. Before the end of apartheid, Whites earned around 20 times more than Blacks (with a peak at 25). As all discriminatory laws were abolished (1990-1993), this ratio swiftly decreased to 15. Finally, after a short-lived surge in the early 2000s, it further decreased to 9 in 2019.

As a comparison, the White-to-Black earnings ratio was about 1.3 in the United States in the mid-2010s (Derenoncourt and Montialoux, 2021). The White-to-Black wealth ratio reaches about 6 in the United States in 2019, compared to 12 in South Africa (see Derenoncourt et al. (2024) and Appendix Figure A.12). The U.S. wealth ratio declined from 23 to 6 between the 1870s and the 2010s, while the South African wealth ratio dropped from 35 to 12 between 1993 and 2019. Hence, the racial wealth gap in South Africa has shrunk since the end of Apartheid by almost the same order of magnitude as the racial wealth gap did in the United States over the course of a century and a half.[13]

Correspondingly, we observe a dramatic shift in the racial composition of the top 1% and top 10% income groups (who have received at least 25% and 65% of all national income since 1993, respectively: see Figure 2). Figure 3 plots the evolution of the racial composition (White versus Black) of top factor income groups from 1955 to 2019. We complete our main series with estimates derived from prior censuses and Alvaredo and Atkinson (2022) using tabulated income tax data.[14] Until the early 1990s, virtually all

[12]We adjust figures from 1917 to 1987 using ratios between their series and ours in 1993. The ratio between our White-to-Black per capita average income gap and theirs is 1.6 in 1993. In other words, compared to their method, our approach increases the racial income gap by 60%. Importantly, however, the 30% drop from 1987 to 1993 is not due to the junction between the two series but was already a feature of the Leibbrandt et al. (2009) series.

[13]The comparisons are however imperfect as estimates by Derenoncourt and Montialoux (2021) and Derenoncourt et al. (2024) are based almost exclusively on survey or administrative data.

[14]Using these censuses, we can obtain estimates of factor income distribution that are reasonably compa-

top 1% income earners were White. The share of Black individuals in the top 1% steadily increased to finally reach 24% by 2019. In the early 1970s, more than 95% of the top 10% factor income earners were White. But by the late 2010s the share of Blacks in that group had reached 44%.

To further identify what drives this evolution, Figure 4 explores real income dynamics across and within racial groups. Starting at $45,000 (PPP, 2023) the average real factor income per capita of Whites peaked at $75,000 in 2007 before the financial crisis, then decreased to $62,000 in 2019, which is about the same as the national income per capita of Denmark (panel A).[15] This increase has mostly benefited the top half of the White population (panel B), while the bottom 50% has nearly stagnated. With an initial level at $18,000, the global trend for Asian South Africans has been similar in relative magnitude but the overall increase has been more gradual over time. As of 2019, average factor income per capita among Asians was as high as national income per capita in Argentina. Average factor income per capita among Coloureds grew relatively more rapidly (+80% since 1993) but has been stagnating around $11,000 since 2009. On the other hand, real average income per capita among Blacks started from a very low level ($3,000) but rose by 140%—much more rapidly than any other racial group. Yet, this average increase masks significant heterogeneity among Blacks. Indeed, the real income of the poorest 50% of Blacks rose by 50% in 26 years, that is, as quickly as the average Asian or White individual, while that of the top 10% increased by 200%. Comparing these numbers to international living standards in 2019, Black South Africans earned about as much as Bangladeshis on average, but the poorest 90% of Blacks earned as much as Zimbabweans, while the top 10% earned revenues comparable to those of Italy.

Last, in Table 5, we study to what extent the observed reduction in the racial gap is driven by the rise of top Black incomes as suggested by the combination of Figures 3 and

rable to our main series. But we would not be able to consistently expand the analysis to pretax and posttax income concepts.

[15]Appendix Figure A.5 reproduces Figure 4 but with the world ranking of countries in terms of NNI per capita instead of PPP USD.

4. In our baseline scenario (Figure 3), the White-to-Black per capita factor income ratio decreases by 41% (from 15.7 in 1993 to 9.3 in 2019). In four counterfactual scenarios, we measure the decrease in the racial gap that would have occurred had top Black income groups grown slower. In particular, had the top decile grown as fast the 9th decile (among Blacks), the White-to-Black income ratio would only have decreased by 23%. Therefore, the extra growth of the top 10%—relative to the growth of the 9th decile—explains 46% of the reduction of the White-to-Black ratio.

4 The Distributional Incidence of Taxes and Transfers

4.1 Pension, Unemployment, and Private Transfers

Pretax income inequality is very close to factor income inequality (Figure 7). Indeed, the joint redistributive effects of the pension system, the unemployment system, and domestic private transfers contribute to reducing the Gini of factor inequality by at most 2 points throughout the period. This modest role is partly due to the fact that pension, unemployment, and private transfers are small in aggregate. Total unemployment income has remained stable around 0.4-0.5% of NNI since 1993, while total pension income or domestic private transfers rose from 1.5% of NNI in 1993 to 3% in 2019 (Figure 5)

In Figure 5A and 5B, we decompose the net transfer received across the factor distribution for each type of transfer in 1993 and 2019. There has been little change in the incidence of the unemployment system: the top 20% are net contributors, while the bottom 80% are net beneficiaries. Redistribution through the pension system mostly operates within the top 10% in 1993, but then extends to the top 30-40% in 2019—reflecting the gradual increase in access to private pension schemes. Most notably, domestic private transfers have become increasingly redistributive. The net contribution of the top 1% grew from 0.1% of NNI in 1993 to almost 0.6% in 2019, while the share received by the bottom 10% rose from 0.3% to 0.7%.

4.2 Taxes

The share of taxes in net national income has increased almost by 20%, from 35.3% in 1993 to 43.3% in 2019 (Figure A.2 and Table A.1). The tax system was regressive in 1993, and has become more regressive over time. The average tax rate of the top 10% has increased by 25%, from 32% to 40% of pretax income (Figure 6C1), but the average tax rate of the bottom 50% has increased by 75%, from 40% to more than 70% (Figure 6A1). Meanwhile, that of the middle 40% has been stable around 35% (Figure 6B1). This is the result of two opposing mechanisms. The rise of the corporate income tax (CIT) and personal income tax (PIT) increased the contribution of the top 10%, but the rise of indirect and local taxes has more than compensated this trend, increasing the relative contribution of the bottom 50% even faster. In the rest of the section, we analyze these evolutions in more detail.

Of all tax instruments, the CIT has increased the most. It accounted for 10% of all taxes in 1993 but 16% in 2019, with a peak at 25% in 2008. This trend has occurred despite successive reductions in the nominal rate (from 40% to 30% in 1999, then 29% in 2005). As the CIT is mostly paid by the top 10%, this increase reinforces the progressivity of the tax system (see Figure A.7). The evolution of the PIT has played a similar role overall. In aggregate, it grew from 10.3% of NNI in 1993 to 12% in 2019. After a short increase in the late 1990s (with a peak at 33% in 1999), the share of the personal income tax in total taxes decreased significantly (down to 23% in 2006), then increased back to its 1993 level at around 28%. This trend closely follows the evolution of the top marginal tax rate from 43% to 45% in 1995, then 42% in 2000, 40% in 2002 and back to 45% in 2019. As the PIT is paid only by the top 50%, and mostly by the top 20%, these trends imply that changes in PIT have mostly increased overall tax progressivity (Figure 6).

Meanwhile, the VAT has increased from 6.3% of NNI in 1993 to 7.8% in 2019. This shift was most pronounced in the early 2000s, and was probably due to improved enforcement given that the nominal rate (14%) and the list of zero-rated items have remained stable from 1993 until 2019. This increase has affected the bottom 50% more than the top

10% (Figure 6). VAT paid as a share of pretax income has increased from 5% to 6% among the top 10%, but from 15% to 25% among the bottom 50%. Note that the average effective VAT rate can be higher than the nominal rate here because the denominator is pretax income, thus excluding cash transfers which are largely used by poor households to buy goods subject to VAT. This methodological choice preserves the consistency with the national accounts: if we were to add cash transfers, then, to avoid double counting at the aggregate level, we would also have to remove the taxes levied to fund cash transfers. Yet, as the government budget is fungible, it is not clear which taxes should be removed. In a robustness exercise, we explore the distributional implications of adding/removing different income components (see Figure A.6). Adding cash transfers to pretax income brings down the effective VAT rate of the bottom deciles much closer to its nominal value (panel B). Further assuming that cash transfers are paid for via an equivalent amount of direct taxes has little incidence on the overall average tax rate of the top 10% (panels C and D). In other words, assuming that cash transfers received by bottom income deciles are paid for through direct taxes levied from the richest, we can recover effective VAT rates that are very close to the nominal value.

Local taxes have also increased gradually over the period, from 9.3% to 10.9% of NNI. As for the VAT, this increase has been more pronounced for the bottom 50%: local taxes represented 12% of the total pretax income of the bottom 50% in 1993, compared to 30% in 2019. At the same time, local taxes paid by the top 10% remained relatively stable around 6-8% of total pretax income. Again, such high incidence rates among the poor are credible to the extent that local taxes are at least partly paid for via the cash transfers they receive. In our robustness exercise in Figure A.6, the local tax rate of the bottom decile goes down to 20% once cash transfers are added to the income concept.

Compared to the PIT, the CIT, the VAT, and local taxes, other tax policies have played a very modest role. Over time, their share in total taxes has decreased, from 10% to 7% for excise taxes, 4% to 3% for trade taxes, and 3% to 2.6% for other taxes.

4.3 Transfers

Total government expenditure rapidly decreased from 37% in 1993 to 32-33% in the early 2000s, before sharply increasing following the financial crisis and the general election to reach 40% in 2009. It then remained roughly stable before increasing again slightly to 43% in 2019 (Figure A.2). Transfers were already very redistributive in 1993, but they have become even more so over time (Figure 6). The total amount of transfers received by the top 10% amounted to 18% of their pretax income in 1993, compared to 15% in 2019. For the middle 40%, it moderately increased from 55% to 60% over the period. The most dramatic change has occurred for the bottom 50%: their transfers increased from 200% of pretax income in 1993 to 400% in 2009 and remained roughly stable afterwards. In Appendix Figure A.7 we provide further graphical evidence of the increase in transfer progressivity: the gradient is much steeper in 2019 than in 1993.

This general picture is the result of the combination of multiple trends. With the generalization of the old age grant and the introduction and progressive expansion of the child support grant, social protection spending rose steadily from 3% to 5.3% of NNI, doubling its share in total expenditure over the period. Given that social transfers almost exclusively accrue to lower income deciles, this rise has made government transfers significantly more redistributive. In particular, we can see from Figure 7 that social transfers reduced the Gini coefficient by more than 5 points in 2019, versus 3 points in 1993. Local government spending has also increased significantly (from 19% to 25% of total expenditure). This trend also mostly benefited low-income households due to large reductions in spatial spending inequalities (Gethin, 2026). Health and education expenditure has also increased—from 4% to 5.1% of NNI for education and 7.8 to 9% of NNI for health—, also mostly to the benefit of the bottom 50%. In particular, the share of health expenditure going to the bottom 50% has more than doubled as a proportion of their factor income, while the share received by the top 10% has remained very marginal. Expenditure related to transport or public order and safety also benefit more the poorest

deciles as a proportion to their pretax income, but their progressivity has not changed significantly over time. Finally, in the absence of better information and following the conventions usually adopted in the literature (Alvaredo et al., 2020), we distribute the budget for defense and general administration proportionally to posttax disposable income, that is, in a inequality-neutral way. This implies by construction that the top 10% benefit disproportionately more from these services. However, their importance has decreased significantly, as they shrunk from 6.5% to 3.7% of NNI.

4.4 Posttax Income Inequality

The above sections establish that, since the end of Apartheid, taxes have become more regressive and transfers more progressive. When combining both effects, we observe that the total incidence of the government's intervention has become more progressive. The worsening of tax regressivity has been more than compensated by the improvement in transfer progressivity. Figure 7 shows that the reduction in Gini coefficient from pretax income to disposable income has increased by 3 points, corresponding to a 50% increase in progressivity compared to 1993. In addition, the gap between disposable income inequality and posttax income inequality has also widened: the reduction in Gini has increased by about 30%, from -10 points in 1993 to -13 points in 2019.[16]

Translating this transformation into net transfers by pretax income group (Table 3), net transfers received by the bottom 50% have increased from about 9% to 14% of NNI (+52%), while net transfers received by the top 10% have decreased from about -13% to -20% of NNI (-54%). In contrast to the large and sometimes rapid evolution of specific taxes and transfers, the overall evolution of redistribution has been much more continuous and monotone over time (Figure 8). In particular, the net transfer received by the bottom 50% only started significantly increasing in the mid-2000s, from 10% of national income

[16]Appendix Figure A.8 plots the ratio of posttax to pretax income by income group and race. The posttax income of the bottom 50% was about 5.5 times their pretax income in 2019, compared to 3.5 times in 1993.

in 2005 to 14% in 2019. This large increase in redistribution was primarily driven by the growth of spending in education (from 6% of NNI in 2005 to 9% in 2019), healthcare (3.5% to 5%), and social protection driven by the rollout of the child support grant (4% to 5.3%).[17]

Finally, it is worth stressing that despite substantial redistribution, posttax income inequality levels in South Africa today remain among the highest in the world. Figure 1 compares pretax and posttax inequality in South Africa to other countries in the world. Estimates for Europe and the United States come from Blanchet et al. (2022) and Piketty et al. (2018), while estimates for other countries are based on simplified measures by Fisher-Post and Gethin (2025).[18] The top 10% pretax income share reaches almost 70% in South Africa, compared to 60% in Brazil and India, 45% in the U.S., and 32% in Denmark. Moving from pretax to posttax income does reduces inequality substantially, by about 15 points in South Africa, implying redistribution levels comparable if not higher than those observed in rich countries. Posttax inequalities remain extreme, however, with a top 10% posttax income share reaching about 55% in South Africa, similar to the level observed in India but significantly higher than in Brazil (50%), the United States (35%), or Denmark (20%). This finding highlights the dominant role played by "predistribution" factors shaping the distribution of pretax income (minimum wages, education, and technology) over redistribution (taxes and transfers) in shaping cross-country differences in inequality. Despite one of the most redistributive systems in the world, South Africa is still very far from reaching the levels of posttax inequality observed in Western Europe.

[17] Appendix Figure A.9 complements this analysis by plotting the share of pretax income received, taxes paid, and transfers received by income group from 1993 to 2019. In 2019, the bottom 50% contributed to less than 10% of taxes but received over 40% of transfers.

[18] Posttax inequality estimates for other countries allocate social protection, education, and healthcare using the same method as in this paper, but other public services proportionally to disposable income (Fisher-Post and Gethin, 2025). For comparability, we thus adopt the same definition of posttax income in this specific figure, which explains why posttax inequality numbers do not match those of the rest of the paper.

4.5 Redistribution and Racial Disparities

In this last section, we explore how government redistribution has contributed to shape racial inequalities. Figure 9A shows that taxes and transfers do significantly reduce inequalities between Whites and Blacks. In 1993, the White-to-Black average income ratio was about 15 before taxes and transfers (pretax), 12 after accounting for direct taxes and social transfers (disposable income) and 8 after accounting for all taxes and transfers (posttax income). Since then, the government's intervention has been consistently reducing the racial income gap, but its relative importance has slightly diminished in the most recent years. In 2019, the White-to-Black average income ratio was about 9.5 in terms of pretax income, compared to 5.5 in terms of posttax income. The fact that government redistribution consistently reduces the White-to-Black income ratio is not surprising given the results of our previous sections. Indeed, throughout the period, most individuals from the top 10% factor income group are White, most people from the bottom 90% are Black (see Panels (C) and (D) of Figure A.4), the top 10% is a net contributor, and the bottom 90% is a net beneficiary of the tax-and-transfer system (Panel (A) of Figure 8).

We conclude by reporting synthetic results by race in Table 4. Asians have represented less than 3% of the population since 1993. Their share in pretax income has decreased by 16%, almost as rapidly as their population share. Their net contribution has remained small and relatively constant over time, with their posttax to pretax income ratio reaching about 0.85. Coloured people form a larger group (about 8.4% of the population). Their share in pretax income has increased by 38% over the period, but this has been partly offset by an increase in their contribution to the redistributive system. While they were receiving about 1% of NNI as net transfers in 1993, this gain had gone down to 0.3% of NNI by 2019. As a result, their share of posttax income has only increased by 25% over the period. The population of White individuals has decreased by over 40%, from 13% in 1993 to 7% in 2019. Their share in pretax income has followed a similar trend although slightly less pronounced. Nevertheless, their net contribution has remained very large

and relatively stable at about 12-13% of NNI. As a result, their posttax to pretax income ratio has decreased from 0.8 to 0.7. Black South Africans are by far the largest population group (76% in 1993 and 82% in 2019). Their share in pretax income has increased by over 90%, but their net transfers slightly decreased from 13% to 12.6% . As a result, their posttax income has grown more slowly than their pretax income but still faster than for any other income group. Net redistribution across race has remained relatively stable over time. Almost constantly since 1993, the tax-and-benefit system has redistributed 12-13% of NNI from White to Black South Africans.

Taken as a whole, our results show that the Black population has benefited the most from the increase in growth and redistribution since the end of apartheid. However, as highlighted in section 3.2, Black South Africans form an extremely heterogeneous group. Separating the top 10% from the bottom 90% allows us to disentangle two radically opposite dynamics within this group. Compared to the top 10%, the bottom 90% of the Black population has experienced only a modest growth in pretax income (+42% versus +144%) but their net transfers received have steadily increased from 13% to 19% of NNI while the top 10% has become a net contributor, with a net transfer decreasing from about 0% in 1993 to -7% in 2019. In other words, the bottom 90% of Black South Africans have benefited the most from the increase in redistribution, while the top 10% have primarily benefited from pretax income growth, making them increasingly eligible for direct taxes, which by design are mostly paid by the top 20%. Comparing the trajectories of the Black top 10% with that of Whites, we observe that the share of taxes paid by Whites dropped from 67% in 1993 to 43% in 2019, while that share increased from 10% to 28% for the Black top income group (see Panels (A) and (C) of Figure A.10).

Interestingly, the rise in the net contribution made by the top 10% has not fully offset their rapid pretax income growth: even after tax and transfers, the top 10% Black income group have grown twice as fast as the bottom 90% of the Black population.[19]

[19]Appendix Figure A.11 provides a more granular decomposition of pretax and posttax income growth by income group and race over 1993-2019. The overall distribution of growth has been very regressive in terms

5 Conclusion

Combining survey, tax, national accounts, and historical budget data, this paper constructed a new microdatabase to trace the evolution of both overall and racial inequality in pretax and posttax incomes in South Africa, since the end of apartheid.

Our analysis revealed two distinct periods. Between 1993 and the mid-2000s, economic growth coincided with rising pretax inequality, widening racial disparities, and stagnant redistribution. From the mid-2000s onward, pretax inequality declined, and posttax inequality fell rapidly as redistribution expanded through personal income taxation and the growth of cash, health, and education transfers. The most striking change occurred within the Black population: the exceptional rise of the top 10% of Black earners explains nearly half of the decline in the White-to-Black income ratio since 1993. Because South Africa's fiscal system is redistributive overall, this new elite has become a significant net contributor. While redistribution across racial groups has remained broadly stable, redistribution within the Black population has expanded dramatically. Nevertheless, despite the historical narrowing of racial income gaps, South Africa remains one of the most unequal countries in the world.

This paper contributes to the literature on the long-run analysis of racial inequality and the measurement of the income distribution and government redistribution in developing countries. It provides the first unified assessment of how all taxes and transfers have shaped racial and overall inequality over time in an emerging economy, setting a benchmark for future comparative work.

Further research should seek to better understand the mechanisms behind the boom of the top 10% of Black incomes. In particular, it would be interesting to determine to what extent the increase in economic opportunities for this elite stems from the end

of pretax income but turns very progressive in terms of posttax income, reflecting the major expansion of redistribution documented in the previous section. Growth has also been more inclusive in terms of posttax than pretax income within each racial group, although posttax incomes did still increase faster at the top than at the bottom of the Black, Coloured, and White populations.

of discriminatory laws and practices inherited from the apartheid, or rather from the adoption of pre-redistribution public policies favoring previously oppressed racial groups.

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Table 1: The Distribution of Factor National Income and Pretax National Income

Item	Distribution method	% of NNI (2019)
Factor national income		100%
Compensation of employees	Proportional rescaling	57%
Mixed income	Proportional rescaling	9%
Property income, net		9%
Rents	Proportional rescaling	2%
Interest	Proportional rescaling	2%
Dividends	Proportional rescaling	4%
Other property income	Proportionally to pension and life insurance wealth	6%
Interest paid by households	Proportionally to factor income of debtors	-5%
Imputed rents of owner-occupiers	Proportionally to housing wealth of owner-occupiers	3%
Corporate undistributed profits	Proportionally to equity	8%
Taxes less subsidies on production and imports	Proportionally to factor income	11%
Remaining national income components	Proportionally to factor income	3%
Pretax national income		100%
Pension contributions	Observed	6%
Pension benefits	Observed	3%
Pension deficit or surplus	50% prop. to contributions, 50% prop. to benefits	3%
Unemployment insurance contributions	Rule-based imputation	0.5%
Unemployment insurance benefits	Observed	0.4%
Unemployment insurance fund deficit or surplus	50% prop. to contributions, 50% prop. to benefits	0.1%

Notes. The table reports the methodology used to distribute the various components of factor national income and pretax national income, along with the size of each component expressed as a share of net national income (NNI) in 2019. Factor national income is the sum of all income flows accruing directly or indirectly to individuals, before accounting for the operation of the tax-and-transfer system, and before accounting for the operation of the pension and unemployment systems. Pretax national income is equal to factor income after the operation of the pension and unemployment systems. Both factor national income and pretax national income sum to the net national income.

Table 2: The Distribution of Taxes

Item	Distribution method	% of NNI (2019)
Direct taxes		19.0%
Personal income tax	Rule-based imputation	11.2%
Corporate income tax	Proportionally to equity	6.1%
Dividends tax	Proportionally to dividends	0.8%
Skills development levy	Rule-based imputation	0.4%
Transfer duties	Proportionally to housing wealth	0.2%
Securities transfer tax	Proportionally to equity	0.1%
Estate duty	Proportionally to net wealth	0.1%
Donations tax	Proportionally to net wealth	0.0%
Other taxes on income	Proportionally to pretax income	0.1%
Indirect taxes		12.6%
Value added tax	Proportionally to expenditure (excl. zero-rated / informal market)	8.0%
General Fuel Levy	Proportionally to fuel and transport expenditure	1.8%
Other excise duties	Proportionally to tobacco and alcohol expenditure	1.1%
Other taxes on goods and services	Proportionally to total expenditure	0.3%
Taxes on international trade	Proportionally to import-density-corrected expenditure	1.4%
Other government revenue	Proportionally to pretax income	2.0%
Total consolidated revenue		33.6%

Notes. The table reports the methodology used to distribute all taxes in South Africa at the individual level, along with the size of each component, expressed as a share of net national income (NNI), in 2019.

Table 3: Synthetic Results by Pretax Income Group

		Bottom 50%	Middle 40%	Top 10%
Pretax Income Share	1993	3.6	29.2	67.2
	2007	2.1	23.1	74.8
	2019	3.1	27.8	69.2
Net Transfer (% NNI)	1993	9.1	4.2	-13.4
	2007	11.0	6.4	-17.4
	2019	13.9	6.4	-20.3
Posttax Income Share	1993	12.7	33.4	53.8
	2007	13.1	29.5	57.4
	2019	17.0	34.2	48.8
Posttax Over Pretax Income	1993	3.5	1.1	0.8
	2007	6.2	1.3	0.8
	2019	5.6	1.2	0.7

Notes. The table reports key inequality statistics by pretax income group. In 1993, the top 10% earned 67% of aggregate pretax income and received a negative net government transfer of about 13% of net national income (NNI). The top 10% posttax income share was equal to 54%, implying a top 10% pretax to posttax income ratio of about 0.8.

Table 4: Synthetic Results by Race

		Asian	Coloured	White	Black	Black Top 10%	Black Bot. 90%
Population Share	1993	2.6	8.5	13.0	75.9	7.6	68.3
	2007	2.5	8.8	9.1	79.6	8.0	71.6
	2019	2.1	8.3	7.3	82.2	8.2	74.0
Pretax Income Share	1993	4.7	5.5	65.2	24.7	12.5	12.2
	2007	4.2	7.0	56.1	32.7	21.3	11.4
	2019	4.1	7.6	40.9	47.5	30.5	17.0
Net Transfer (% NNI)	1993	-0.7	0.9	-13.4	13.0	0.4	12.7
	2007	-0.4	1.0	-13.3	12.7	-2.5	15.2
	2019	-0.6	0.3	-12.3	12.6	-6.5	19.0
Posttax Income Share	1993	4.0	6.4	51.8	37.8	12.9	24.9
	2007	3.9	7.9	42.8	45.4	18.8	26.6
	2019	3.5	8.0	28.6	60.0	24.0	36.0
Posttax Over Pretax Inc.	1993	0.9	1.2	0.8	1.5	1.0	2.0
	2007	0.9	1.1	0.8	1.4	0.9	2.3
	2019	0.8	1.0	0.7	1.3	0.8	2.1

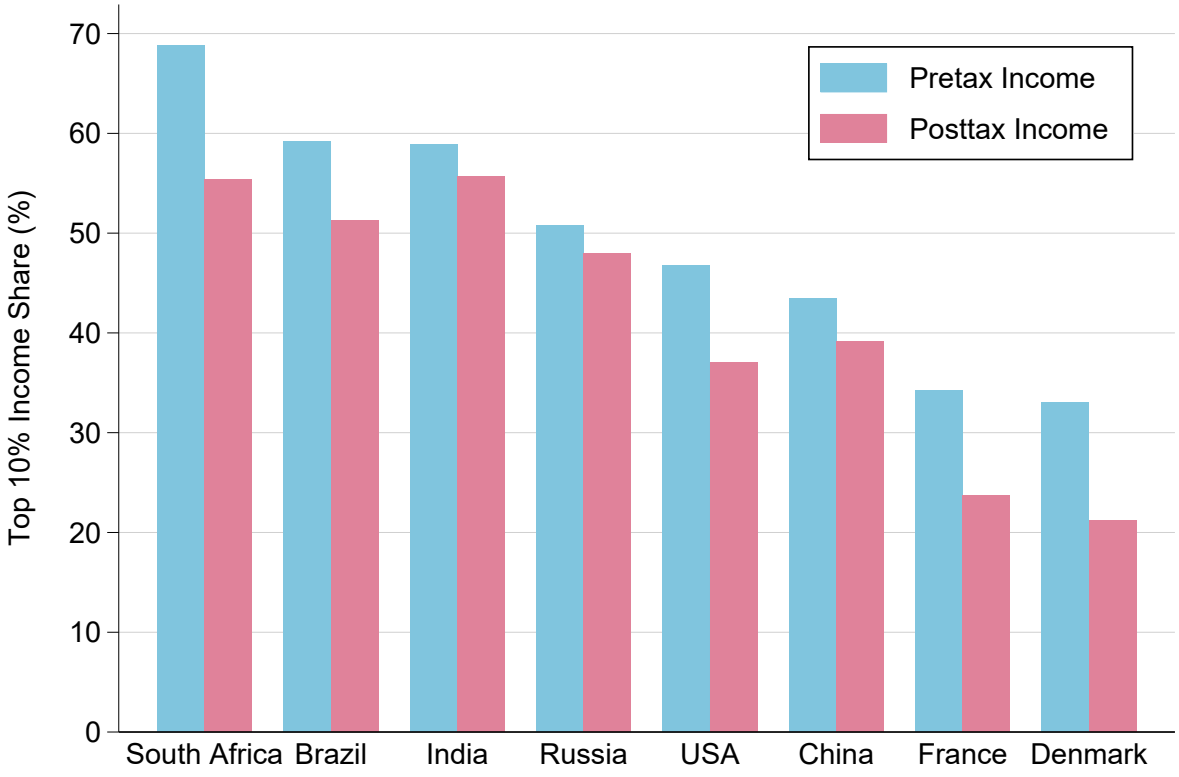
Notes. The table reports key inequality statistics by race, with a further decomposition of Black South Africans into the top 10% and bottom 90% of Black individuals. In 2019, the richest 10% of Black South Africans represented about 8% of the South African population and received 31% of pretax income. They paid a net transfer of 7% of national income, reducing their posttax income share to 24%. Their posttax income was equal to about 80% of their pretax income.

Table 5: The Role of Top Black Earners in Shaping the Evolution of the Racial Factor Income Gap

		White-to-Black Income Ratio		Change	Share of Change Explained (%)
Observed		15.7	9.3	-40.6%	
Counterfactual	Top 10% Had Grown Like the 9th Decile	15.7	12.3	-21.9%	46.1%
Scenarios on the	... and 9th Decile Like the 8th Decile	15.7	12.5	-20.4%	49.8%
Growth of Top	... and 8th Decile Like the 7th Decile	15.7	12.6	-20.0%	50.9%
Black Income Groups	... and 7th Decile Like the 6th Decile	15.7	12.6	-20.0%	50.8%

Notes. The table compares the observed change in the White-to-Black average factor income ratio to four counterfactual scenarios on the growth of top Black income groups. Each of the four scenarios consist in more or less flattening the distribution of growth at the top end of the Black factor income distribution. Average factor income was about 15.7 times higher among Whites than among Blacks in 1993, compared to 9.3 times higher in 2019, corresponding to a 41% reduction in racial inequality. However, if top 10% Black factor incomes had grown at the same speed as the 9th decile of the Black factor income distribution, the racial gap would have instead declined from 15.7 to 12.3, corresponding to a 22% reduction instead of 41%. This implies that extra growth among the top 10% of Black individuals can account for about 46% of the reduction in racial inequality in South Africa from 1993 to 2019.

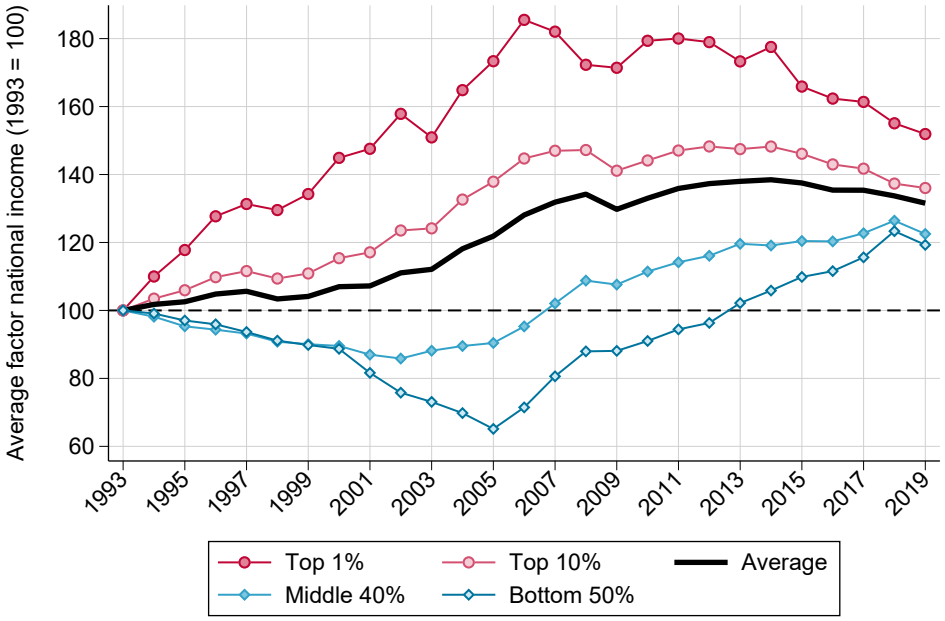
Figure 1: South African Inequality in Comparative Perspective: Top 10% Income Share



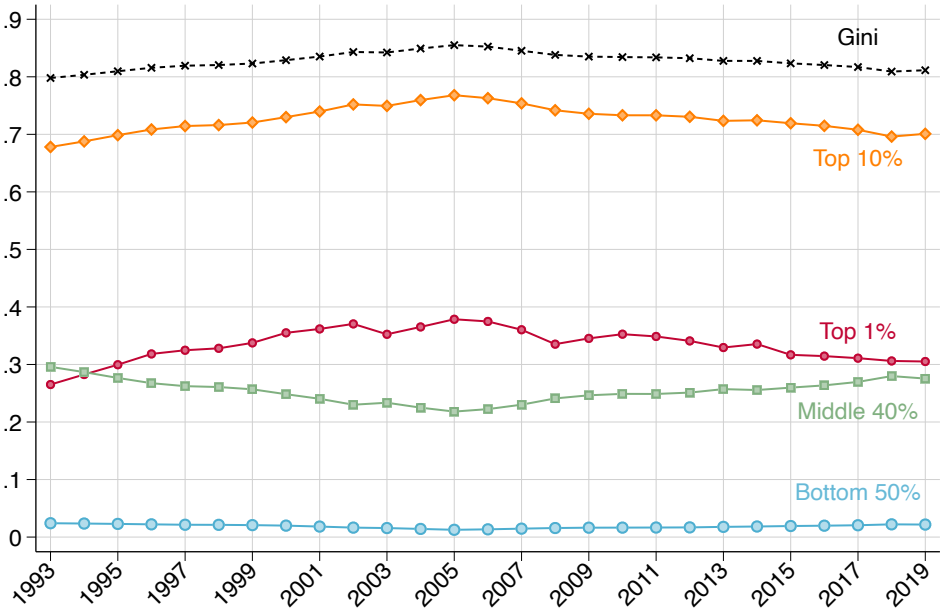
Notes: The figure compares the top 10% pretax and posttax income shares in 2023 (2019 for South Africa) in selected countries. Data from the World Inequality Database (pretax income), Fisher-Post and Gethin (2025) (simplified estimates of posttax income), and this paper (South Africa). The top 10% pretax income share reaches 70% in South Africa, compared to 33% in France.

Figure 2: The Evolution of Factor Incomes since 1993

(A) Growth



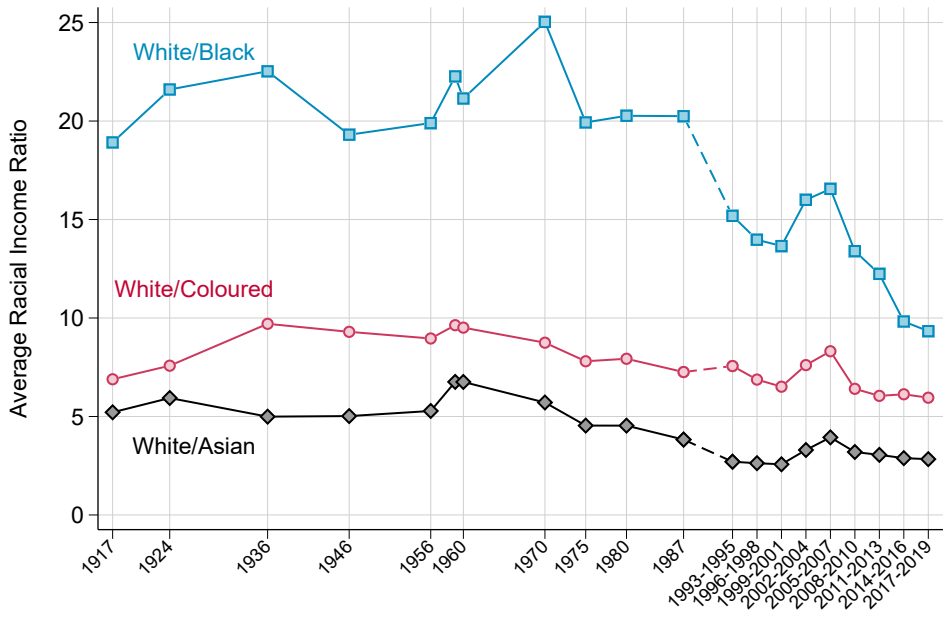
(B) Inequality



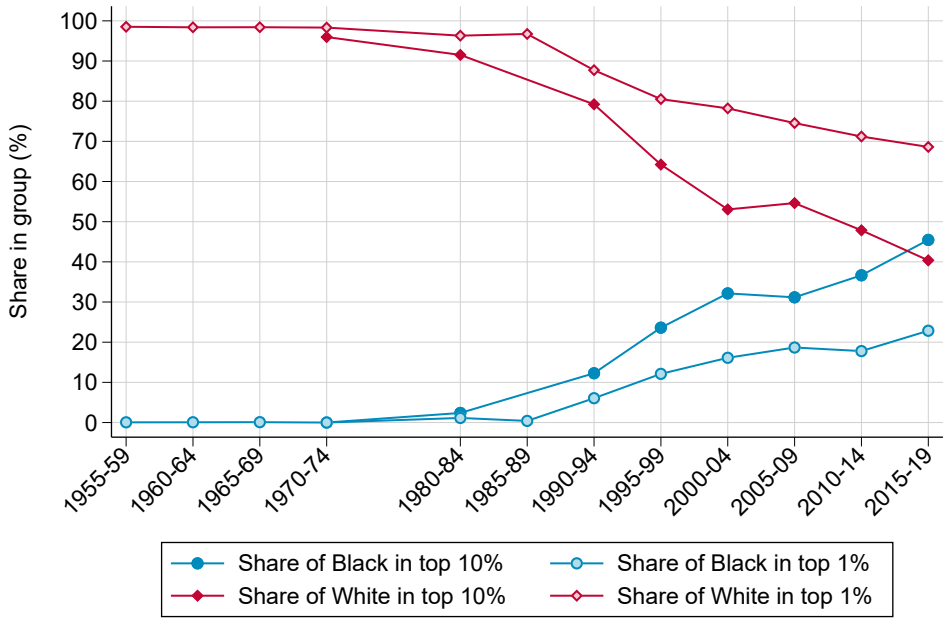
Notes: The figure plots the evolution of factor income inequality in South Africa from 1993 to 2019. Panel A shows cumulated income growth by factor income group. Average per-capita national income grew by about 30%, while the average factor income of the top 1% grew by 50%. Panel B plots the evolution of factor income shares received by different groups, as well as the Gini coefficient of factor income. The Gini coefficient of factor income reached 0.8 in 2019, about the same level as in 1993.

Figure 3: The Evolution of Racial Factor Income Inequality

(A) Racial Income Gaps



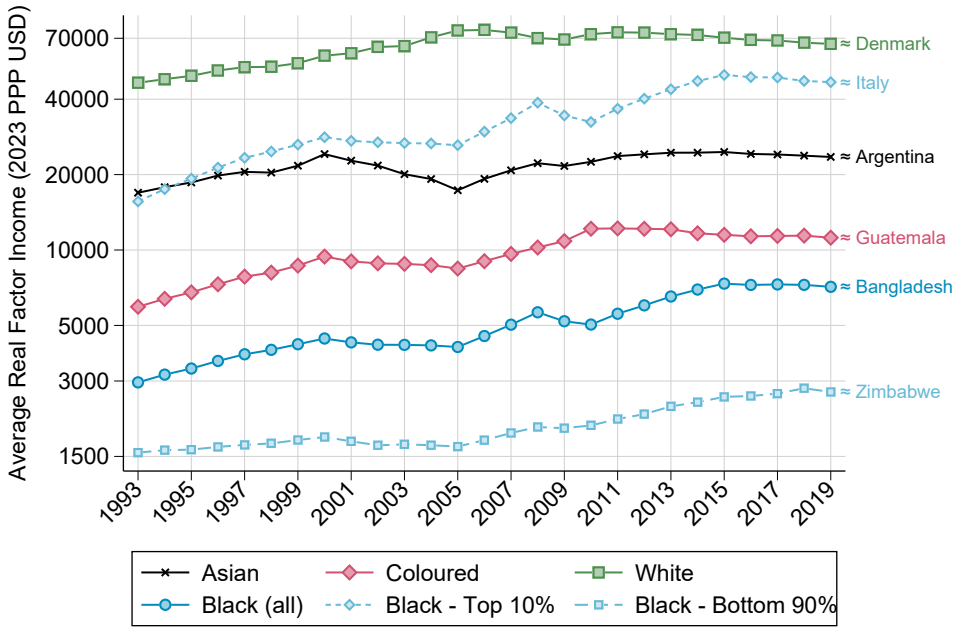
(B) Racial Composition of Top Income Groups



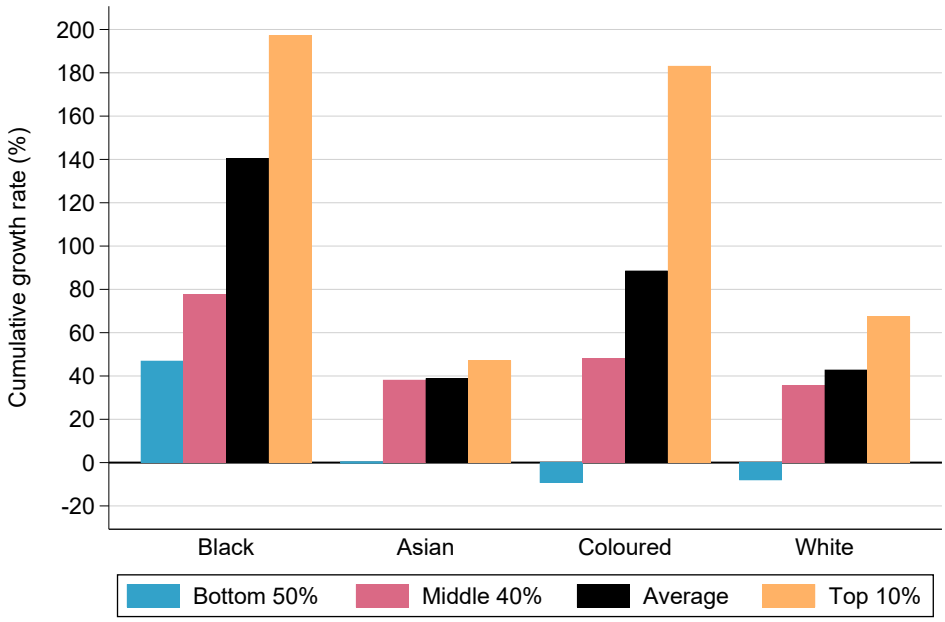
Notes: The figure plots the long-run evolution of racial inequality in terms of factor income in South Africa. Panel A plots the ratios of White to Black, Asian, and Coloured average factor incomes. The White-to-Black average factor income ratio reached over 20 in 1924, compared to 9 in 2019. Estimates until 1993 are based on rescaled data produced by Leibbrandt et al. (2009). Estimates from 1993 to 2019 are derived from our main series. The 30% drop in the White-to-Black ratio between 1987 and 1993 is not due to the junction between the two series but was already a feature of Leibbrandt et al. (2009). Panel B plots the share of the share of Black earners and White earners in top factor income groups between 1955 and 2019. The share of Black individuals in the top 1% grew from approximately 0% in the 1950s to 20% in 2015-2019.

Figure 4: Income Dynamics Across and Within Racial Groups

(A) Real Average Incomes by Race and Income Group



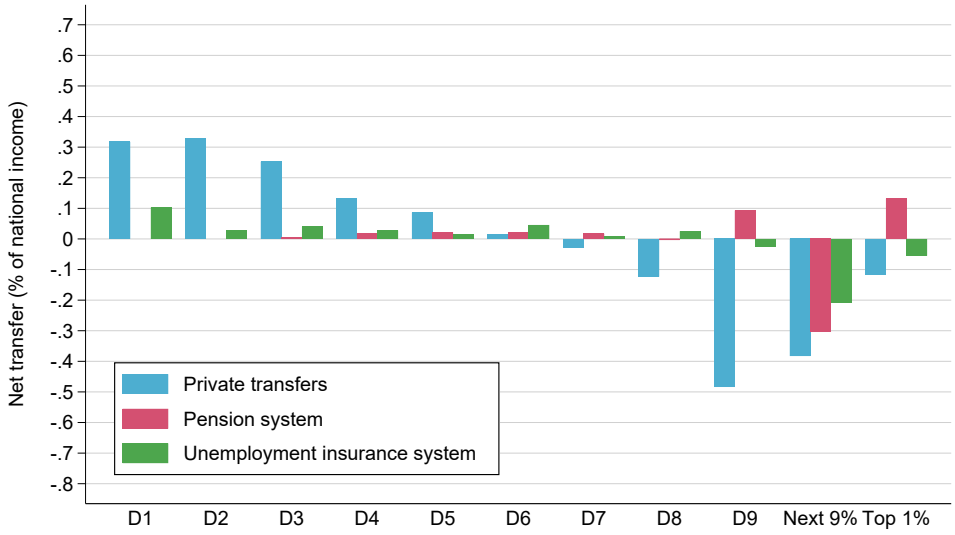
(B) The Distribution of Economic Growth from 1993 to 2019



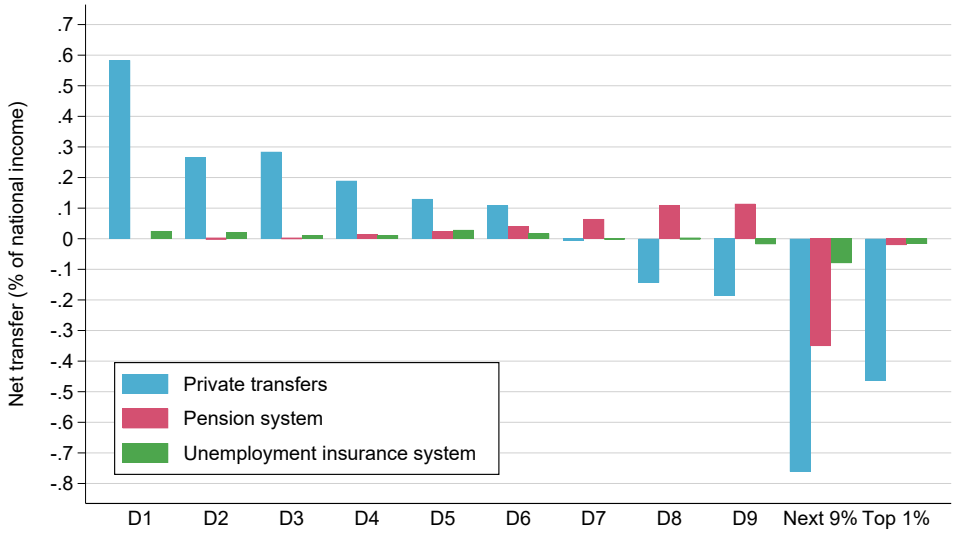
Notes: The figure plots the evolution of factor income inequality within and across racial groups from 1993 to 2019. Panel A shows the evolution of real average factor incomes by racial group in 2023 PPP USD, decomposing the Black population into the top 10% and bottom 90% of Black individuals. In 2019, the average income of the bottom 90% of Black earners reached approximately the same level as the net national income per capita of Zimbabwe, while the average income of White earners was comparable to that of Denmark. Panel B plots total factor income growth by factor income group within each racial group from 1993 to 2019. The bottom 50% of Black individuals saw their average factor income grow by about 40%, compared to almost 200% for the top 10% of Black individuals.

Figure 5: The Distribution of Domestic Private Transfers, Pensions, and Unemployment Benefits

(A) Net Transfers in 1993



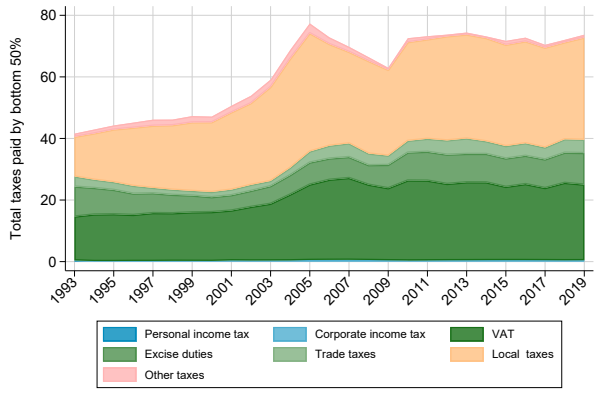
(B) Net Transfers in 2019



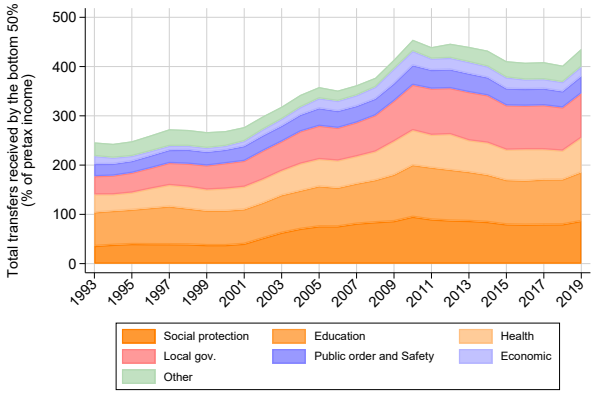
Notes: The figure plots the net transfers operated by the pension system, the unemployment insurance system, and domestic private transfers by factor income group in 1993 (panel A) and 2019 (panel B). In 2019, the poorest 10% received about 0.6% of national income in the form of remittances, compared to close to 0% of pension and unemployment insurance income.

Figure 6: Effective Tax Rates and Transfers Received by Pretax Income Group

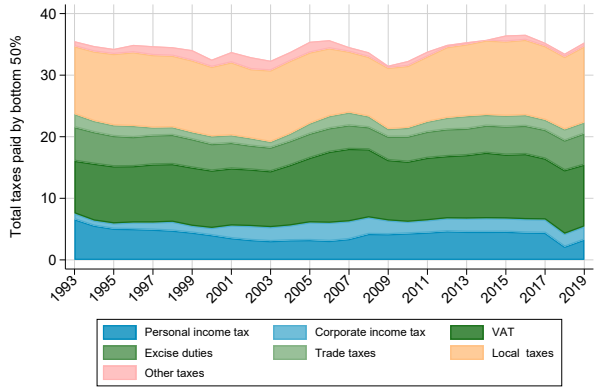
(A.1) Bottom 50%: Taxes



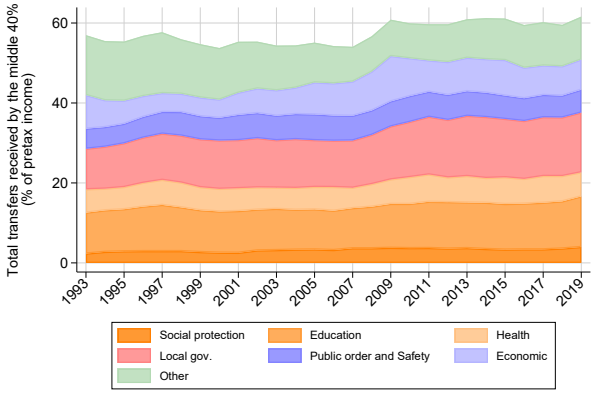
(A.2) Bottom 50%: Transfers



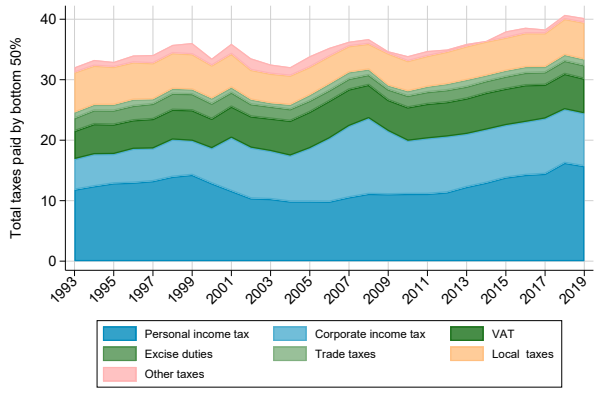
(B.1) Middle 40%: Taxes



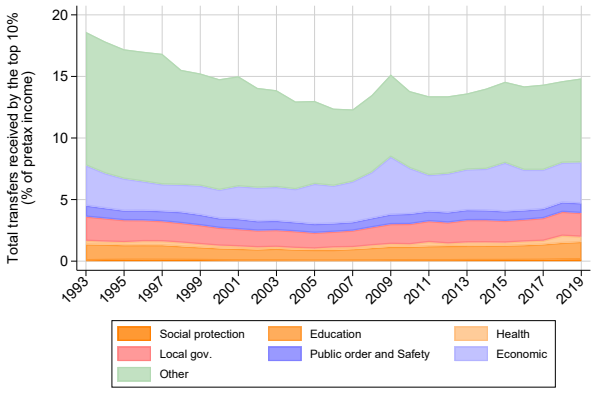
(B.2) Middle 40%: Transfers



(C.1) Top 10%: Taxes



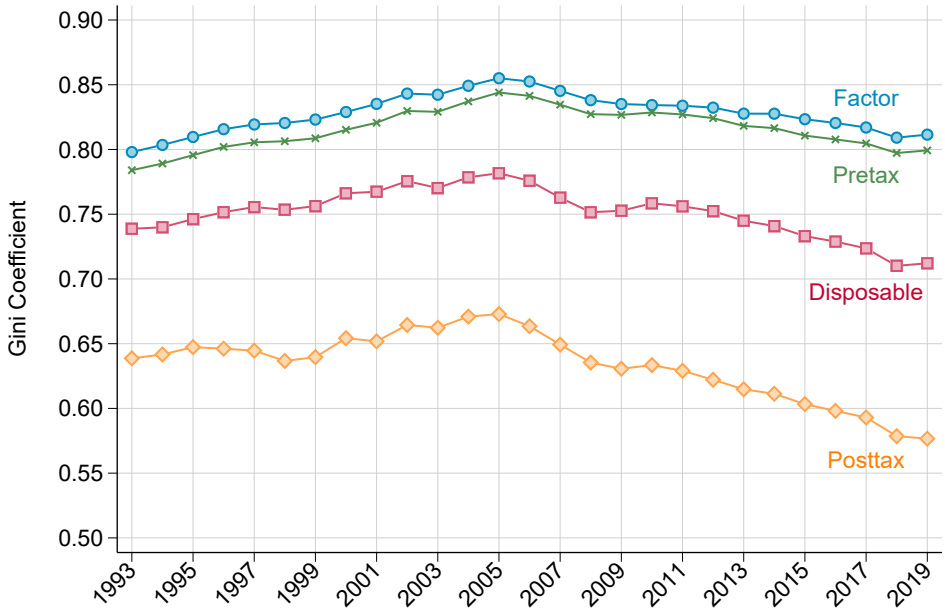
(C.2) Top 10%: Transfers



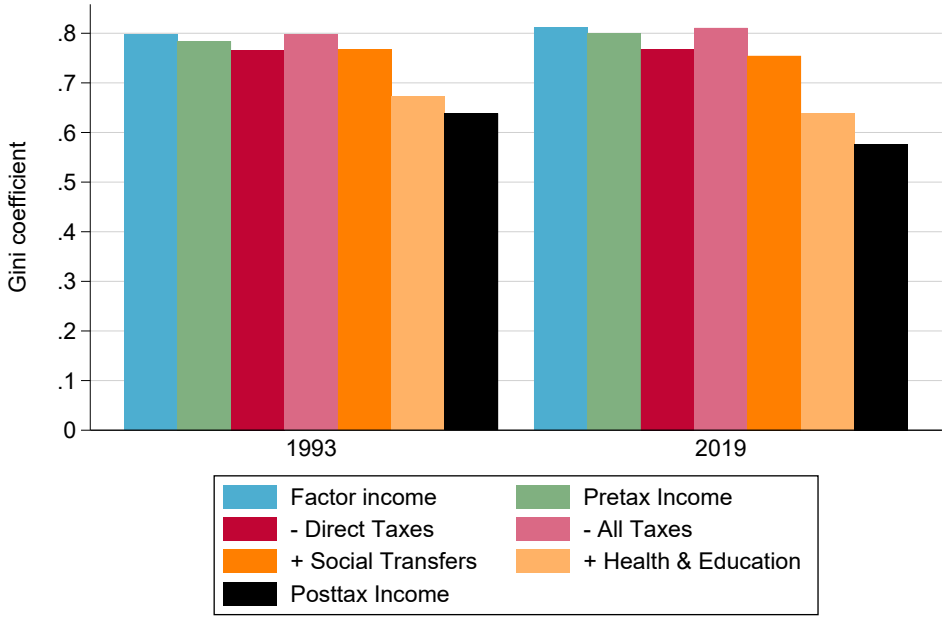
Notes: The figure plots the evolution of effective tax rates and government transfers received by the bottom 50% (p0p50), the middle 40% (p50p90), and the top 10% (p90p100) of the pretax income distribution. Taxes paid by the bottom 50% represented about 40% of their pretax income in 1993, compared to 70% in 2019. Transfers received by the bottom 50% represented about 250% of their pretax income in 1993, compared to over 400% in 2019.

Figure 7: Inequality Before and After Redistribution

(A) Main Concepts



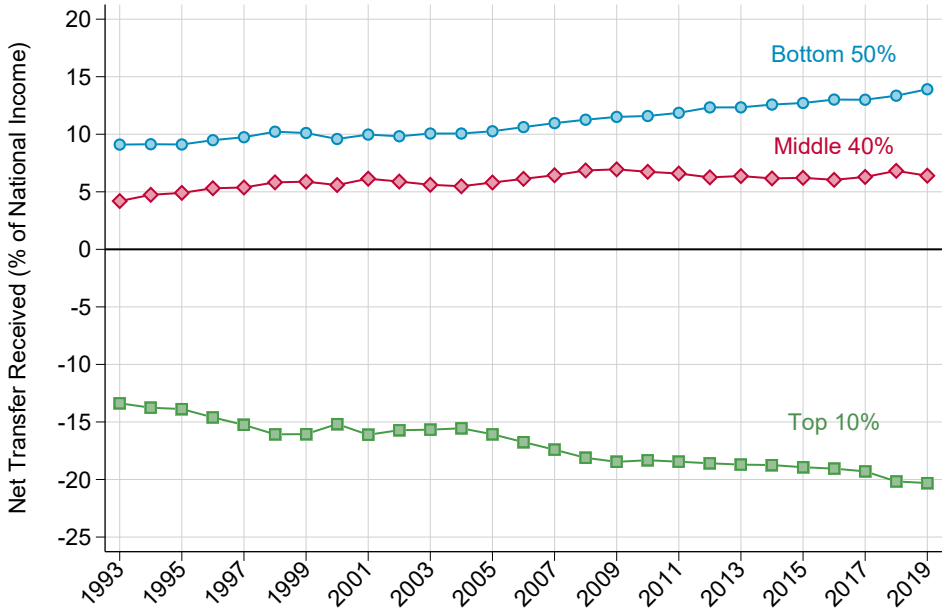
(B) By Type of Government Intervention



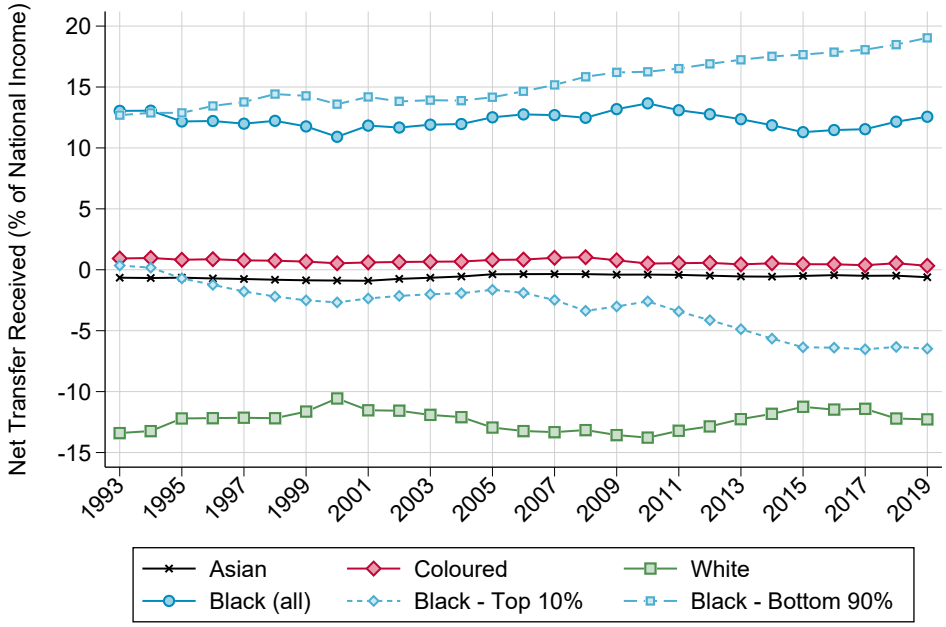
Notes: The figure plots the evolution of income inequality before and after redistribution from 1993 to 2019. Panel A shows the evolution of the Gini coefficient for different income concepts. Panel B shows how different layers of government redistribution affected the Gini coefficient in 1993 and 2019. The Gini coefficient of factor income reached 0.8 in 2019, almost the exact same level as in 1993, while the Gini coefficient of posttax income declined significantly.

Figure 8: Trends in Overall Redistribution: Net Transfers Received (% of National Income)

(A) By Income Group



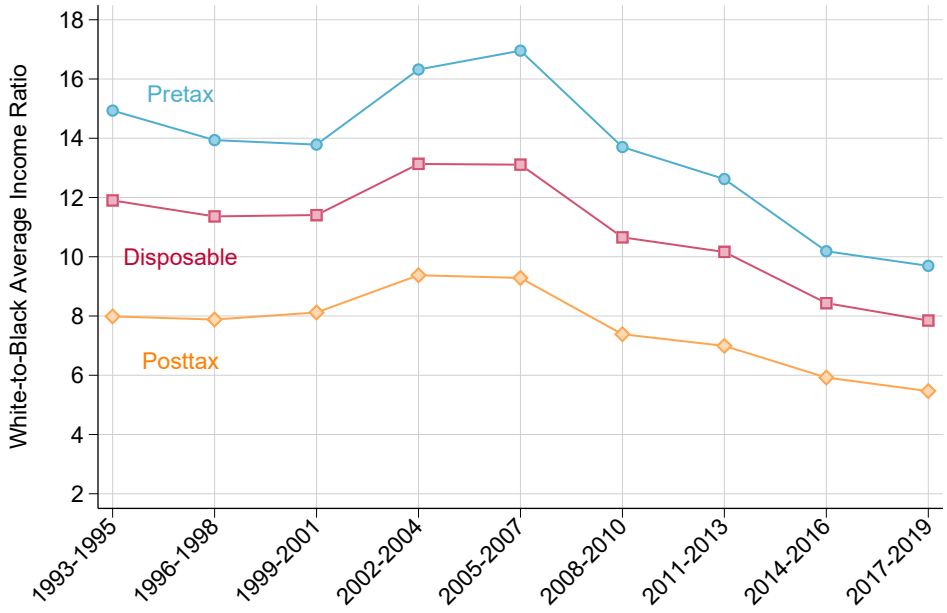
(B) By Race



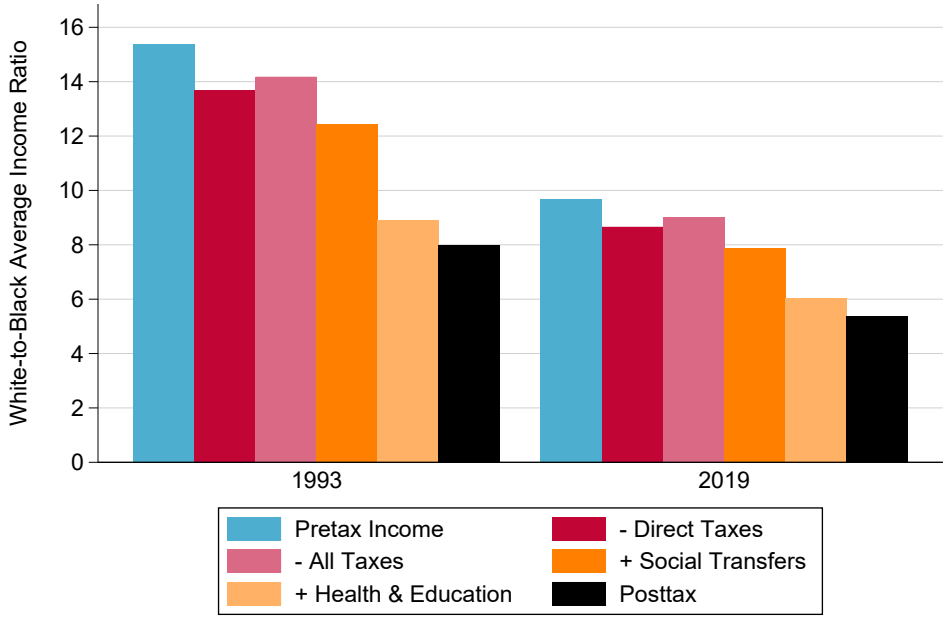
Notes: The figure plots the evolution of net transfers operated by the tax-and-transfer system between pretax income (panel A) and racial (panel B) groups from 1993 to 2019. The net transfer received by the bottom 50% increased from about 10% to 15%. The net transfer received by the Black population as a whole remained stable around 10-15%, but the net transfer received by the poorest 90% of Black individuals grew from 13% to almost 20%.

Figure 9: Racial Inequality Before and After Redistribution

(A) Main Concepts



(B) By Type of Government Intervention



Notes: The figure plots the evolution of racial inequality in South Africa before and after redistribution from 1993 to 2019. Panel A plots the evolution of the White-to-Black income ratio for different income concepts. Panel B shows how different layers of government redistribution affected the White-to-Black income ratio in 1993 and 2019. The White-to-Black income ratio declined from about 15 to 10 in terms of pretax income, and from about 8 to 6 in terms of posttax income. Social transfers and especially education and healthcare generate the largest reduction in racial inequality.

Appendix

Table A.1: Decomposition and evolution of aggregate taxes

Year	NNI real	Total taxes	Personal Income taxes		Corporate Income taxes		Value added taxes		Excise taxes		Trade taxes		Municipal taxes		Other taxes	
	growth p.c. since 1993	as % of NNI	as % of NNI	as % of Tax.	as % of NNI	as % of Tax.	as % of NNI	as % of Tax.	as % of NNI	as % of Tax.	as % of NNI	as % of Tax.	as % of NNI	as % of Tax.	as % of NNI	as % of Tax.
1993	0.0	35.3	10.3	29.0	3.6	10.2	6.3	17.9	3.4	9.5	1.4	4.0	9.3	26.3	1.1	3.0
1994	1.4	35.9	10.6	29.4	3.8	10.5	6.8	18.8	3.3	9.2	1.3	3.6	9.4	26.1	0.8	2.4
1995	1.7	35.5	10.7	30.3	3.5	9.9	6.7	18.7	3.2	9.0	1.3	3.5	9.3	26.2	0.8	2.3
1996	5.4	36.5	11.1	30.5	4.1	11.3	6.4	17.7	3.1	8.5	1.3	3.6	9.4	25.8	0.9	2.5
1997	6.0	36.6	11.6	31.6	4.1	11.1	6.6	18.1	3.2	8.8	1.0	2.6	9.3	25.3	0.9	2.5
1998	4.0	37.8	12.2	32.1	4.7	12.3	6.7	17.6	3.4	8.9	1.0	2.6	9.3	24.4	0.8	2.1
1999	3.6	38.1	12.6	33.1	4.2	11.1	6.8	17.7	3.3	8.7	0.9	2.4	9.3	24.3	1.1	2.8
2000	6.2	35.8	11.2	31.3	4.5	12.6	6.5	18.2	3.1	8.5	1.0	2.8	8.8	24.5	0.7	2.1
2001	7.4	38.0	10.6	27.8	7.1	18.7	6.7	17.6	2.9	7.5	1.0	2.6	9.1	23.9	0.7	1.9
2002	11.6	36.1	9.6	26.5	7.0	19.3	6.7	18.5	2.6	7.1	0.9	2.6	8.5	23.5	0.9	2.6
2003	14.2	35.5	9.3	26.3	6.7	18.8	6.8	19.3	2.5	7.2	0.7	2.1	8.8	24.9	0.6	1.6
2004	20.3	35.8	9.1	25.5	6.5	18.1	7.3	20.5	2.5	7.1	0.9	2.6	8.9	24.8	0.5	1.4
2005	25.8	37.9	9.2	24.4	7.5	19.9	7.7	20.5	2.5	6.5	1.2	3.2	8.9	23.5	0.8	2.0
2006	32.3	39.1	9.0	23.0	8.8	22.5	8.2	21.0	2.4	6.1	1.4	3.6	8.5	21.7	0.8	2.1
2007	36.2	40.0	9.4	23.4	9.7	24.1	8.2	20.5	2.4	6.0	1.5	3.7	8.1	20.2	0.9	2.1
2008	38.7	40.2	9.7	24.2	10.0	25.0	7.7	19.1	2.3	5.7	1.2	3.1	8.3	20.7	0.9	2.3
2009	37.4	37.8	9.5	25.2	8.4	22.2	7.1	18.7	2.4	6.2	0.9	2.4	8.8	23.3	0.7	1.9
2010	42.6	37.2	9.6	25.7	7.1	19.2	7.3	19.7	2.4	6.6	1.1	2.8	8.8	23.5	0.9	2.5
2011	46.6	38.2	9.5	24.8	7.4	19.5	7.6	19.9	2.5	6.5	1.2	3.2	9.0	23.6	1.0	2.6
2012	45.9	39.5	9.6	24.4	7.5	19.0	7.6	19.2	2.5	6.4	1.4	3.5	9.6	24.4	1.2	3.0
2013	44.5	40.3	10.3	25.5	7.1	17.7	7.8	19.4	2.5	6.1	1.5	3.8	9.9	24.5	1.2	3.1
2014	43.5	40.8	10.7	26.3	7.2	17.6	8.1	19.8	2.5	6.2	1.3	3.2	10.0	24.6	1.0	2.4
2015	42.7	42.3	11.3	26.7	7.0	16.6	8.0	18.8	2.7	6.4	1.3	3.1	10.3	24.2	1.7	4.1
2016	40.5	42.5	11.6	27.2	7.1	16.6	8.1	19.2	2.8	6.5	1.3	3.1	10.4	24.6	1.2	2.8
2017	40.6	42.0	11.6	27.6	7.3	17.3	7.6	18.0	2.8	6.7	1.2	3.0	10.4	24.6	1.1	2.7
2018	39.2	43.0	12.1	28.0	7.0	16.3	8.0	18.7	3.0	7.0	1.4	3.2	10.5	24.4	1.1	2.5
2019	37.2	43.3	12.0	27.8	7.0	16.1	7.8	18.0	3.1	7.2	1.4	3.2	10.9	25.1	1.1	2.6

Notes. This table reports the evolution of each type of tax as a percentage of net national income and as a percentage of total taxes. In the first two columns we also include numbers on the evolution of net national income per capita cumulated growth since 1993, as well as total taxes as a percentage of net national income. Corporate income taxes include the CIT as well as the dividend tax and the skill development levy.

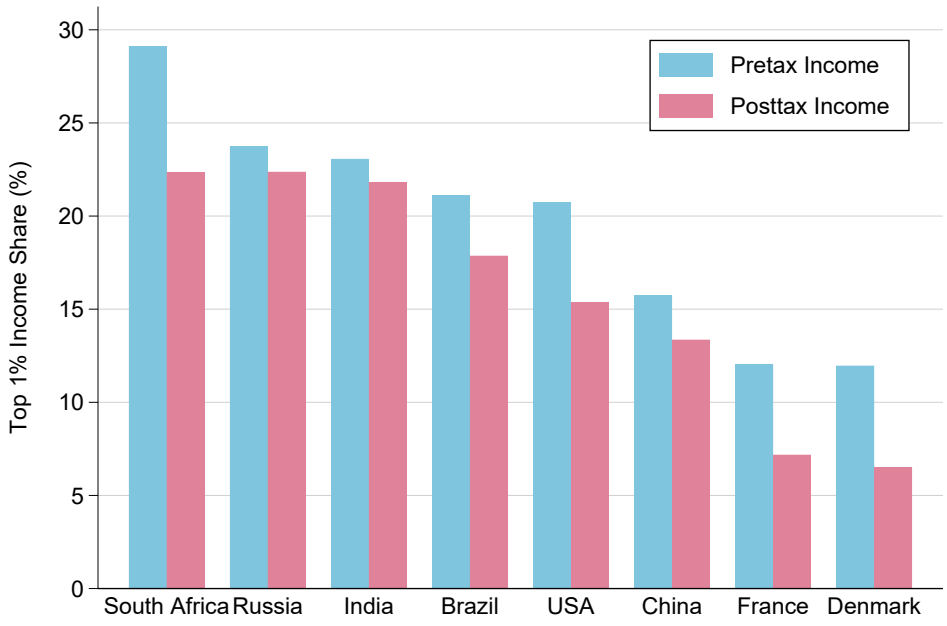
Table A.2: Trends in Public Expenditure

Year	NNI real	Total Gov. exp.	Social Protection		Education		Health		Local Expenditures		Public Order and Safety		Transport and Eco. Affairs		Defense and General admin.	
	growth p.c. since 1993	as % of NNI	as % of NNI	as % of Exp.	as % of NNI	as % of Exp.	as % of NNI	as % of Exp.	as % of NNI	as % of Exp.	as % of NNI	as % of Exp.	as % of NNI	as % of Exp.	as % of NNI	as % of Exp.
1993	0.0	37.1	3.0	8.2	7.8	20.9	4.0	10.8	6.9	18.6	3.5	9.3	5.5	14.9	6.5	17.4
1994	1.4	35.6	3.2	9.1	7.6	21.5	3.6	10.2	6.9	19.4	3.3	9.2	4.5	12.6	6.4	18.1
1995	1.7	33.9	3.2	9.5	7.5	22.0	3.6	10.5	6.8	20.1	3.1	9.2	3.9	11.5	5.8	17.2
1996	5.4	34.1	3.2	9.2	7.6	22.4	3.9	11.3	7.0	20.4	3.2	9.5	3.5	10.2	5.8	17.0
1997	6.0	34.5	3.1	9.0	7.8	22.7	4.1	11.8	7.2	20.8	3.3	9.6	3.2	9.2	5.8	16.8
1998	4.0	32.9	3.1	9.5	7.4	22.4	4.1	12.4	7.1	21.6	3.6	10.9	3.2	9.6	4.5	13.6
1999	3.6	32.3	3.0	9.2	7.0	21.7	3.8	11.9	7.3	22.6	3.5	10.8	3.3	10.1	4.4	13.7
2000	6.2	31.4	2.8	9.0	6.6	21.2	3.7	11.9	7.1	22.8	3.3	10.4	3.2	10.1	4.6	14.7
2001	7.4	32.3	2.9	8.9	6.6	20.3	3.7	11.5	7.0	21.8	3.5	11.0	3.7	11.6	4.8	14.8
2002	11.6	32.1	3.4	10.4	6.2	19.4	3.5	11.0	7.1	22.1	3.4	10.6	4.0	12.4	4.6	14.2
2003	14.2	33.2	3.9	11.7	6.5	19.6	3.5	10.7	7.1	21.3	3.4	10.2	4.1	12.5	4.6	14.0
2004	20.3	32.5	4.0	12.4	6.1	18.8	3.6	11.0	7.1	21.9	3.4	10.3	4.2	12.8	4.2	12.8
2005	25.8	32.9	4.2	12.7	6.1	18.5	3.5	10.8	6.8	20.6	3.4	10.3	5.0	15.3	3.9	11.9
2006	32.3	32.5	4.1	12.6	6.0	18.4	3.7	11.5	6.8	20.9	3.3	10.1	4.9	15.2	3.7	11.2
2007	36.2	33.3	4.3	12.9	6.2	18.7	3.5	10.6	7.2	21.5	3.3	9.8	5.3	16.0	3.5	10.4
2008	38.7	36.3	4.4	12.1	6.7	18.5	3.9	10.8	7.8	21.4	3.4	9.3	6.1	16.8	4.0	11.0
2009	37.4	40.3	4.6	11.5	7.3	18.2	4.4	11.0	8.6	21.4	3.6	8.8	7.4	18.4	4.3	10.6
2010	42.6	38.7	4.6	11.8	7.3	19.0	4.4	11.4	8.9	23.0	3.6	9.4	6.1	15.7	3.7	9.7
2011	46.6	38.5	4.6	11.9	7.7	20.1	4.5	11.7	9.2	24.0	3.6	9.3	5.0	12.9	3.9	10.2
2012	45.9	39.3	4.6	11.7	7.8	20.0	4.5	11.6	9.6	24.4	3.7	9.4	5.3	13.4	3.8	9.6
2013	44.5	39.8	4.6	11.6	7.8	19.5	4.5	11.3	10.1	25.5	3.7	9.3	5.4	13.7	3.6	9.2
2014	43.5	40.4	4.7	11.5	7.8	19.4	4.5	11.2	10.3	25.5	3.7	9.1	5.5	13.5	3.9	9.8
2015	42.7	41.1	4.7	11.4	7.9	19.2	4.7	11.4	10.1	24.6	3.6	8.8	6.1	14.8	4.0	9.7
2016	40.5	40.4	4.7	11.7	8.0	19.7	4.8	11.8	10.1	25.0	3.6	8.9	5.2	12.9	4.1	10.1
2017	40.6	40.9	4.8	11.7	8.2	20.1	4.8	11.8	10.3	25.2	3.6	8.8	5.1	12.3	4.1	10.0
2018	39.2	41.5	5.0	12.2	8.6	20.7	5.0	12.0	10.5	25.3	3.6	8.7	5.1	12.4	3.6	8.7
2019	37.2	42.6	5.3	12.4	9.0	21.2	5.1	12.1	10.5	24.7	3.7	8.7	5.3	12.3	3.7	8.6

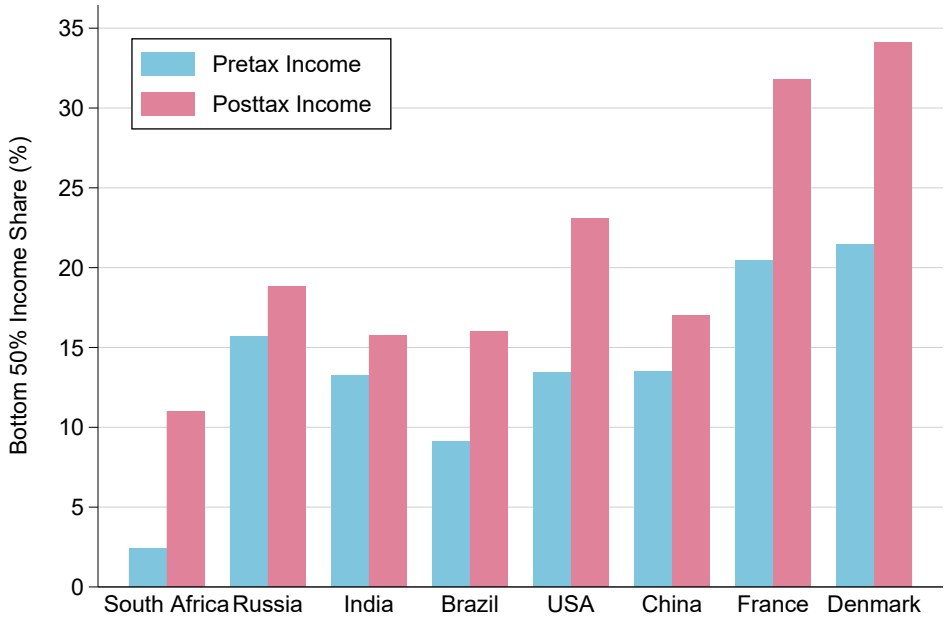
Notes. This table reports the evolution of each type of expenditure as a percentage of net national income and as a percentage of total expenditure. In the first two columns, we also include numbers on the evolution of net national income per capita cumulated growth since 1993, as well as total expenditure as a percentage of net national income.

Figure A.1: South African Inequality in Comparative Perspective: Top 1% and Bottom 50% Income Shares

(A) Top 1% Income Share



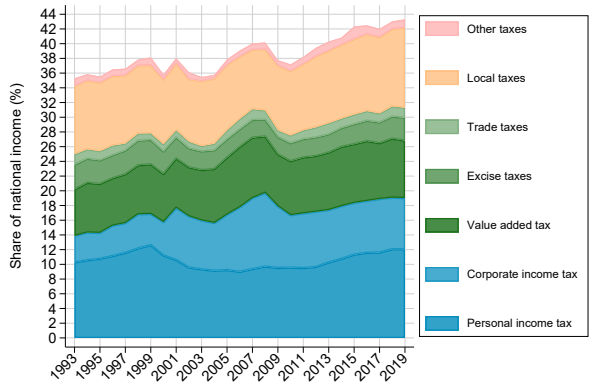
(B) Bottom 50% Income Share



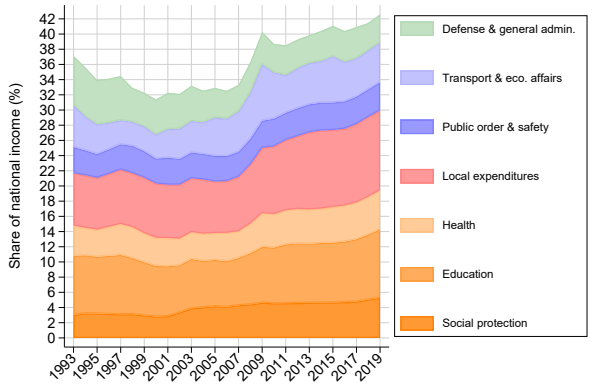
Notes: The figure compares the top 1% and bottom 50% pretax and posttax income shares in 2023 (2019 for South Africa) in selected countries. Data from the World Inequality Database (pretax income), Fisher-Post and Gethin (2025) (posttax income), and this paper (South Africa).

Figure A.2: Trends in Macroeconomic Aggregates

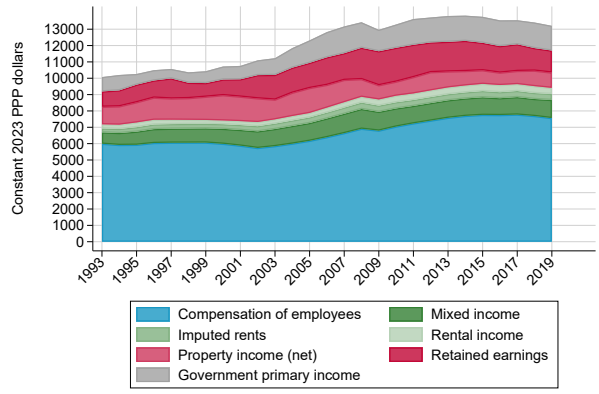
(A) Taxes



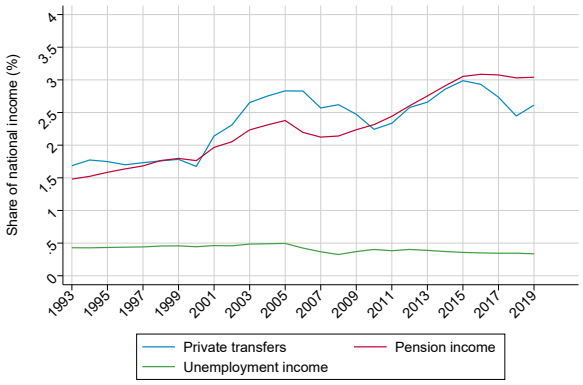
(B) Transfers



(C) National Income per capita



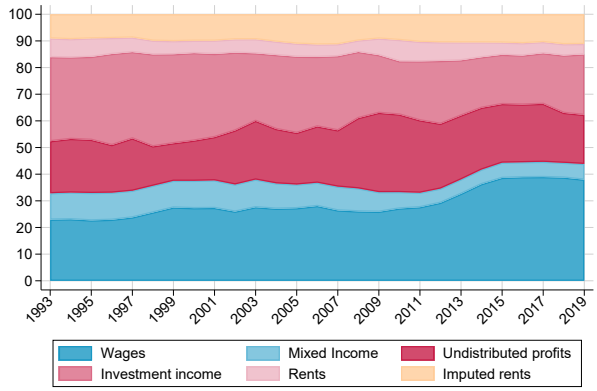
(D) Pensions, Unemployment Insurance, and Domestic Private Transfers



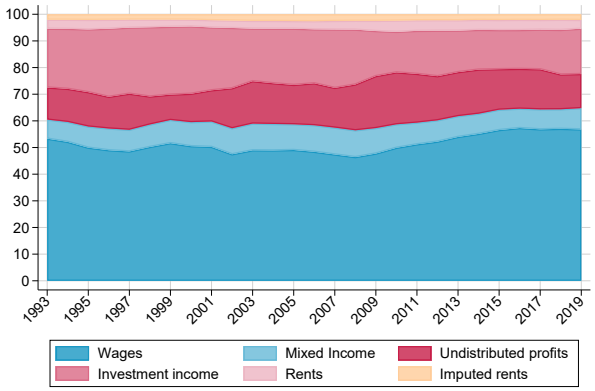
Notes: The figure plots the level and composition of general government revenue (panel A), general government expenditure (panel B), net national income per capita (panel C), and pensions, unemployment insurance, and domestic private transfers received in South Africa from 1993 to 2019.

Figure A.3: The Composition of Factor Income by Factor Income Group

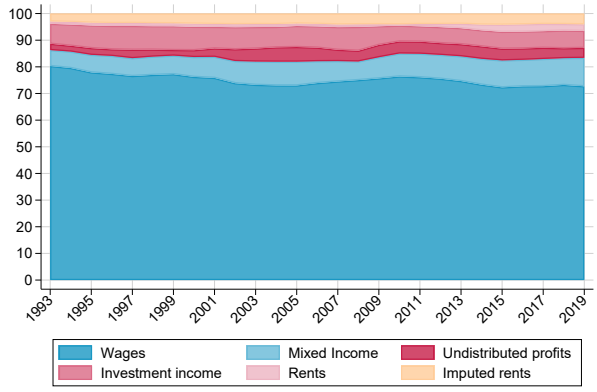
(A) Top 1%



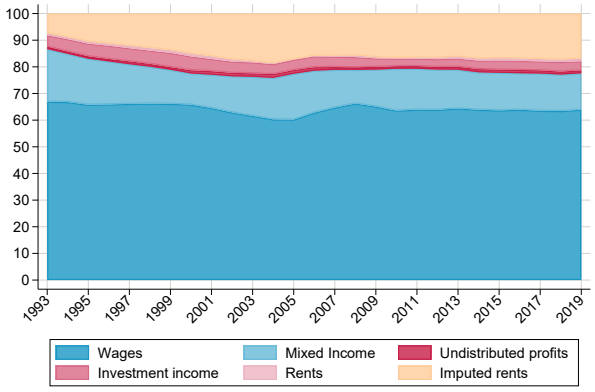
(B) Top 10%



(C) Middle 40%



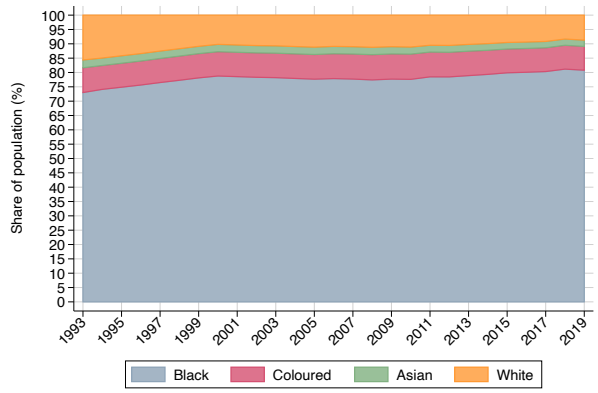
(C) Bottom 50%



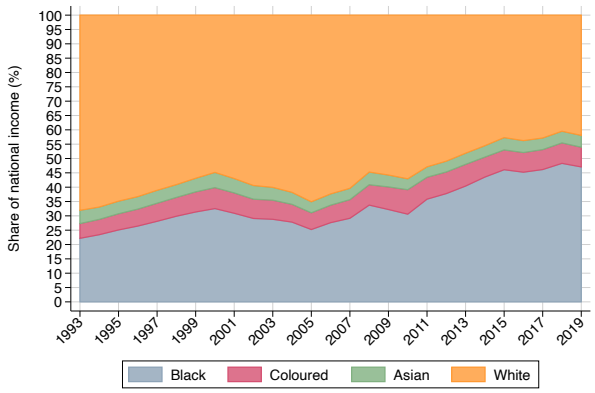
Notes: The figure plots the composition of factor income by factor income group from 1993 to 2019. Throughout the period, over 50% of top 1% factor incomes consist in capital income (undistributed profits, investment income, rental income, and imputed rents), while most of factor income among the bottom 50% consists in wages and mixed income.

Figure A.4: The Evolution of Population and Income Shares by Racial Group

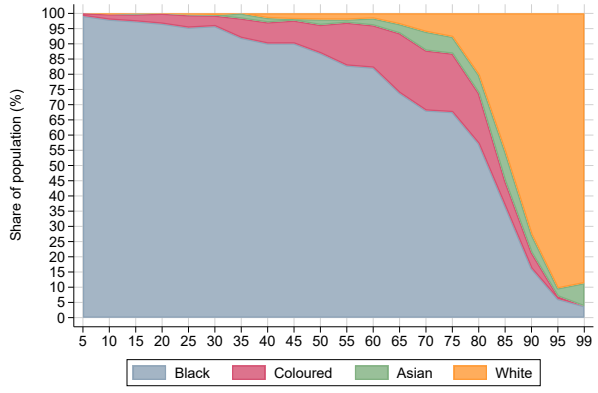
(A) Population Shares by Race



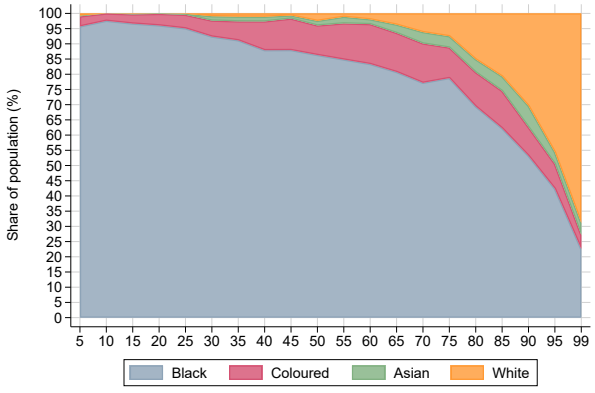
(B) Share of Factor Income Received by Race



(C) Composition of Income Groups, 1993

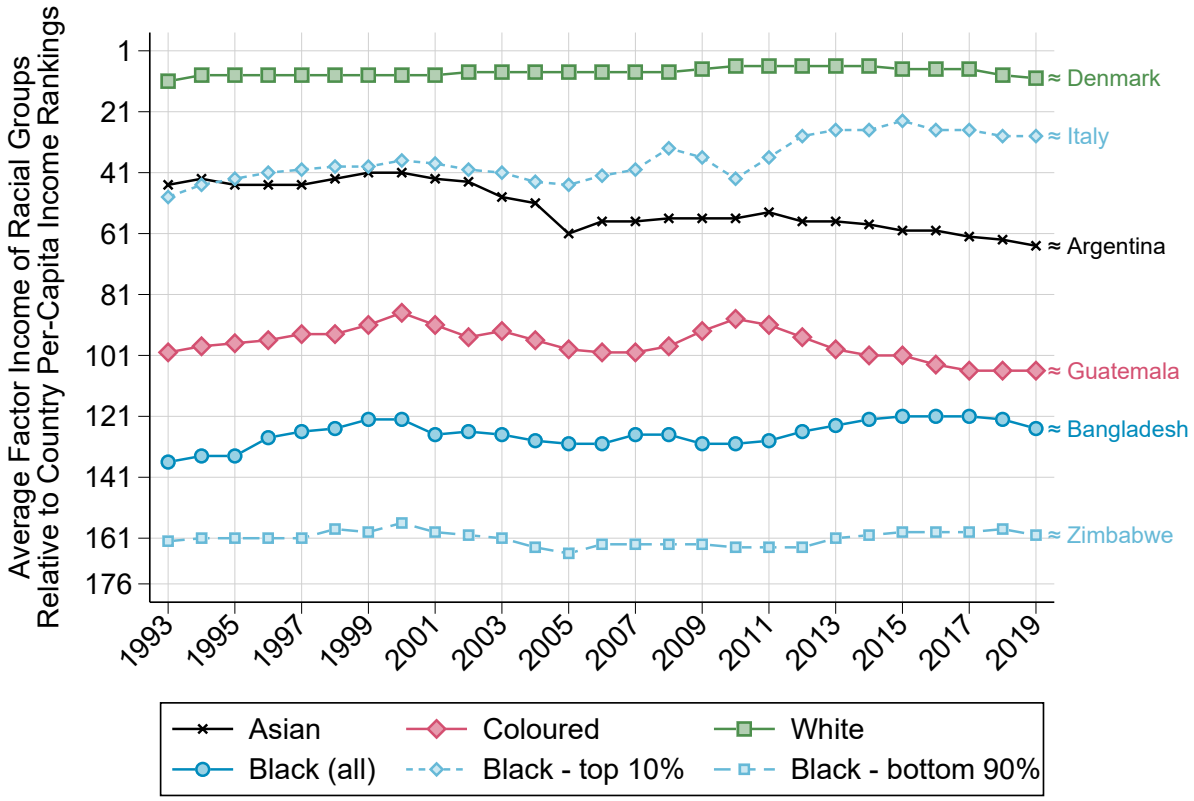


(D) Composition of Income Groups, 2019



Notes: The figure plots population shares by race (panel A), the share of factor income received by racial group (panel B), as well as the racial composition of factor income groups in South Africa in 1993 (panel C) and 2019 (panel D). In 2019, Black South Africans represented about 82% of the population and received about 45% of factor income.

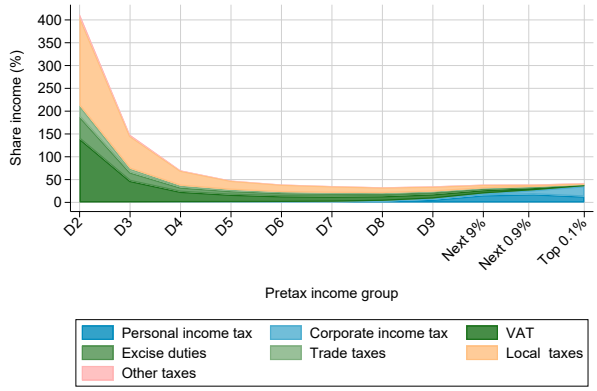
Figure A.5: The Relative Positions of South African Racial and Income Groups in International Perspective



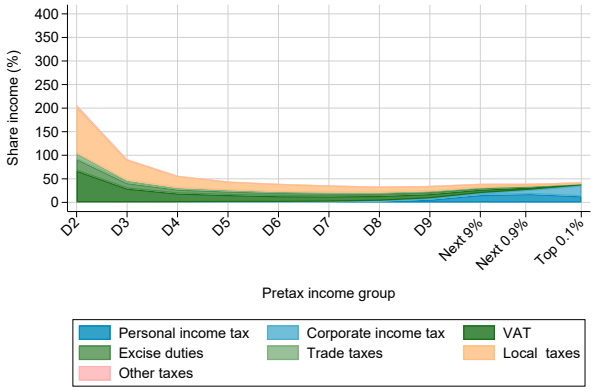
Notes: The figure plots the evolution of real average factor incomes by racial group in 2023 PPP USD, decomposing the Black population into the top 10% and bottom 90% of Black individuals. The y-axis reports how these average factor incomes compare to the world country ranking of average net national per capita in 2019. In 2019, Black South Africans had approximately the same average income as the net national income per capita of Bangladesh.

Figure A.6: The Distribution of Taxes in 2019 by Income Concept

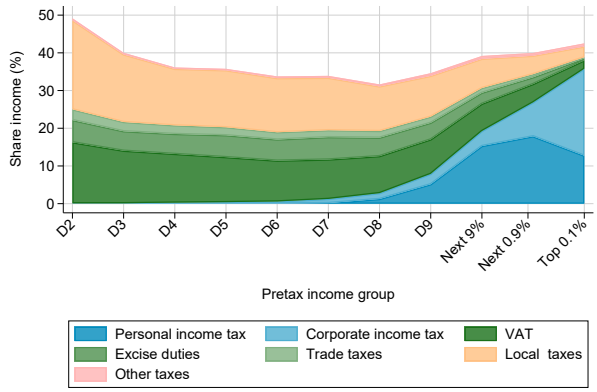
(A) Pretax Income excl. Transfers



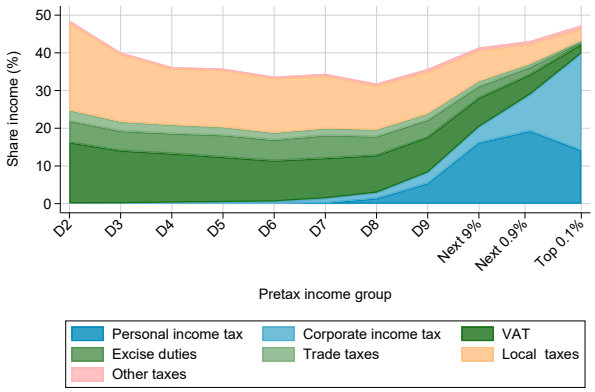
(B) ... + Domestic Private Transfers



(C) ... + Cash Transfers



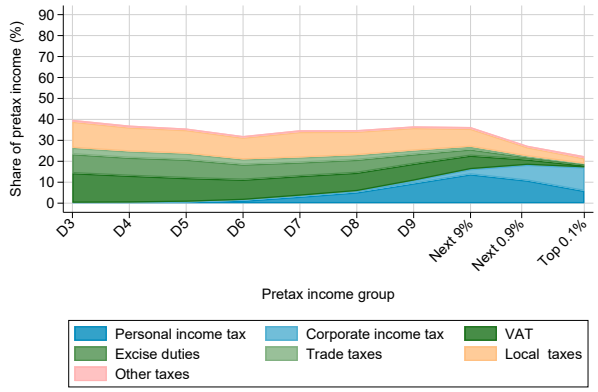
(D) ... – Direct Taxes Funding Cash Transfers



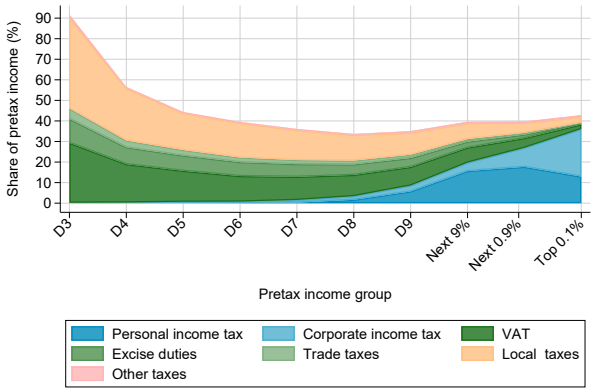
Notes: The figure plots the level and composition of taxes paid by income group for different income concepts. Panel (A) expresses taxes paid as a share of a pretax income, excluding domestic private transfers. Panel (B) adds domestic private transfers to the denominator. Panel (C) further adds cash transfers. Panel (D) further deducts the fraction of direct taxes funding cash transfers from the denominator, thus expressing taxes paid as a share of disposable income. In 2019, the top 1% faced an effective tax rate of about 45% of their disposable income.

Figure A.7: The Distribution of Taxes and Transfers by Pretax Income Group, 1993-2019

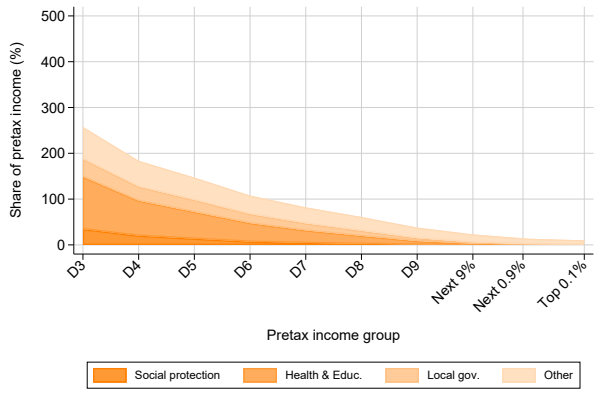
(A.1) Taxes, 1993



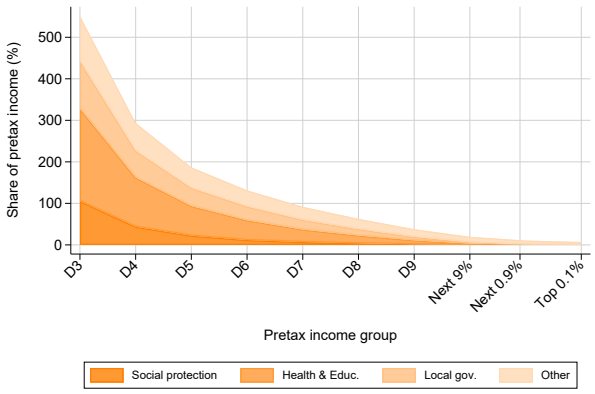
(A.2) Taxes, 2019



(B.1) Transfers, 1993



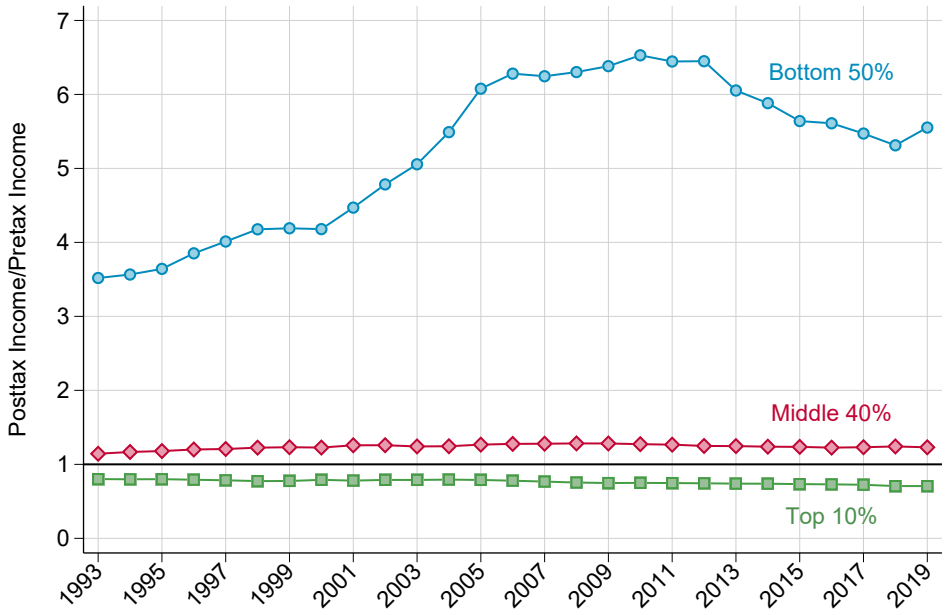
(B.2) Transfers, 2019



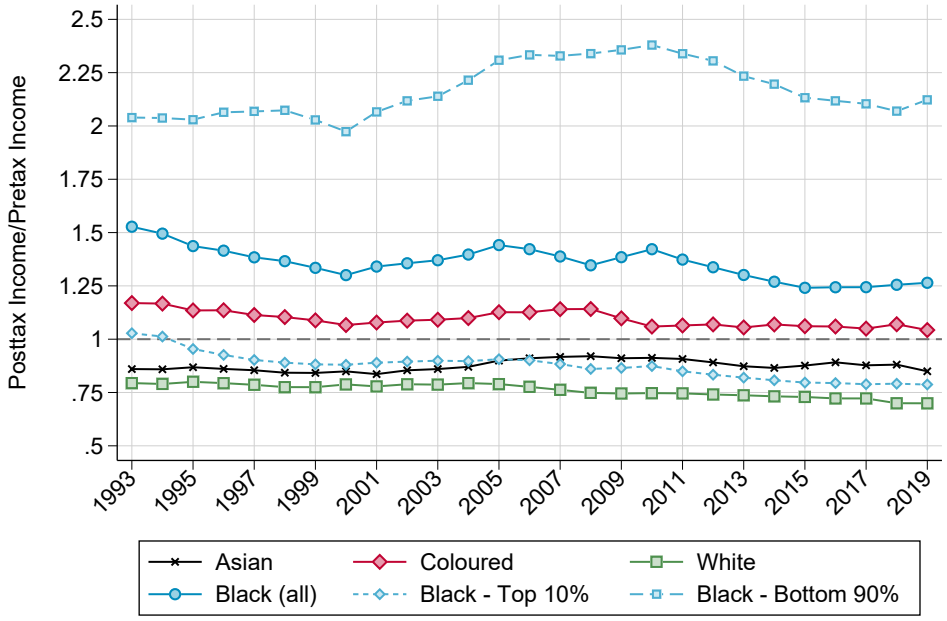
Notes: The figure plots the level and composition of taxes paid and transfers received by pretax income group in 1993 and 2019. In 2019, taxes paid by the third decile amounted to about 90% of their pretax income, while transfers received exceeded 500% of their pretax income.

Figure A.8: Trends in Overall Redistribution: Posttax to Pretax Income Ratios

(A) By Income Group



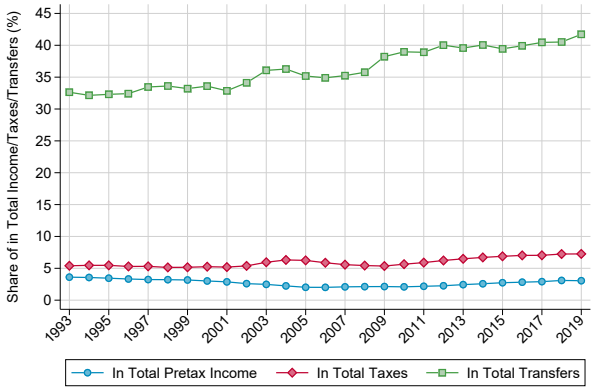
(B) By Race



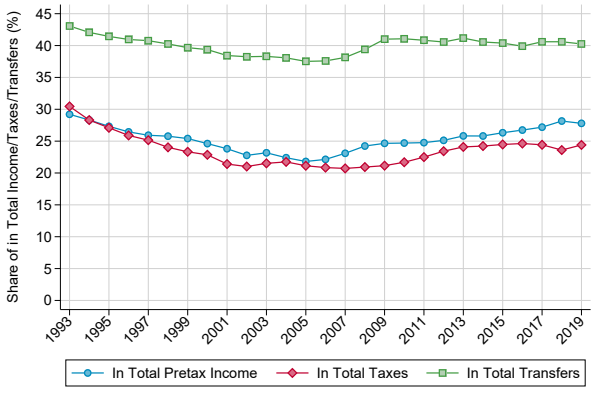
Notes: The figure plots the ratio of posttax to pretax income by income group (panel A) and race (panel B) from 1993 to 2019. The posttax income of the bottom 50% was about 5.5 times higher than their pretax income in 2019, compared to about 3.5 times higher in 1993.

Figure A.9: Shares of Pretax Income Groups in Total Pretax Income, Taxes, and Transfers

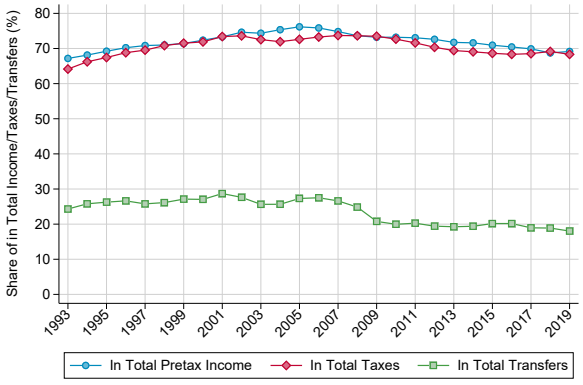
(A) Bottom 50%



(B) Middle 40%

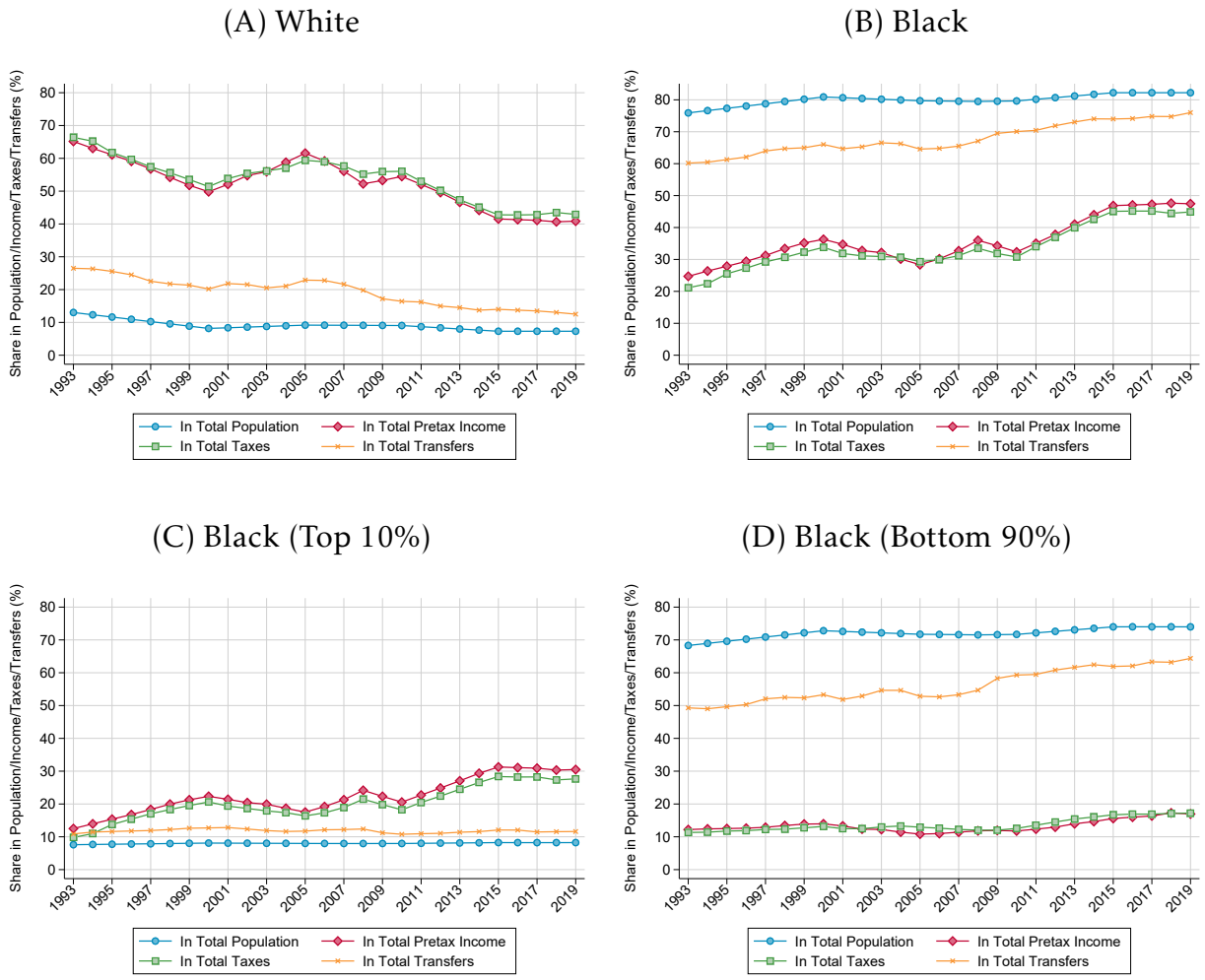


(C) Top 10%



Notes: The figure plots the share of pretax income, the share of taxes paid, and the share of transfers received by the top 10%, the middle 40%, and the bottom 50% of the pretax income distribution from 1993 to 2019. In 2019, the bottom 50% received about 4% of pretax income, paid about 7% of total taxes, and received about 42% of total transfers.

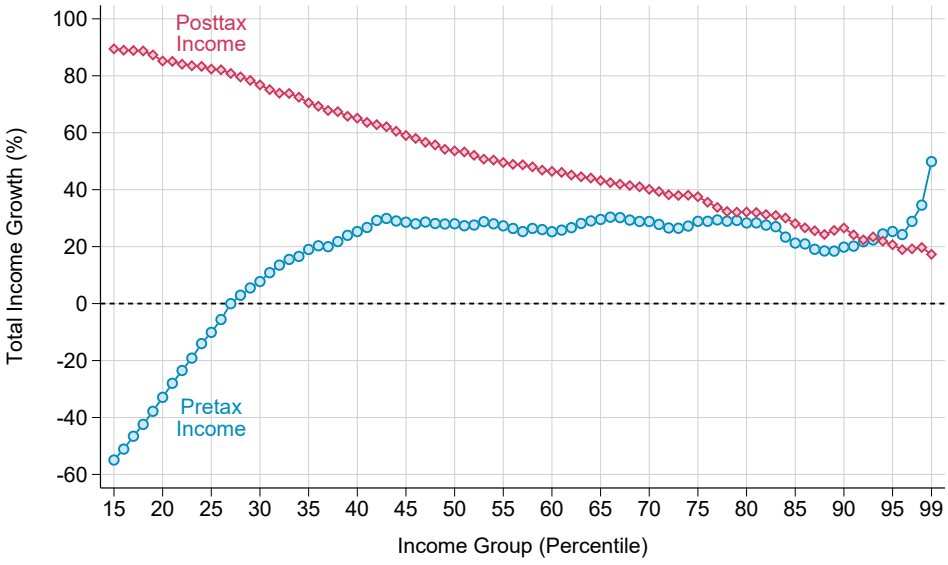
Figure A.10: Shares of Racial Groups in Total Population, Pretax Income, Taxes, and Transfers



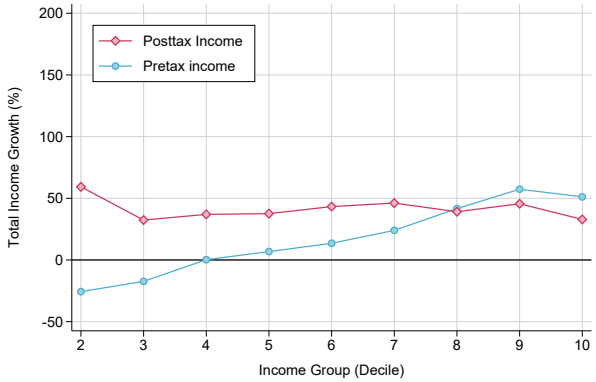
Notes: The figure plots the share of the total South African population, of pretax income, of taxes, and of transfers represented by each racial group from 1993 to 2019. In 2019, White South Africans represented about 7% of the South African population. They received about 40% of pretax income, paid about 40% of taxes, and received about 12% of transfers.

Figure A.11: The Distribution of Economic Growth by Income Group and Race, 1993-2019

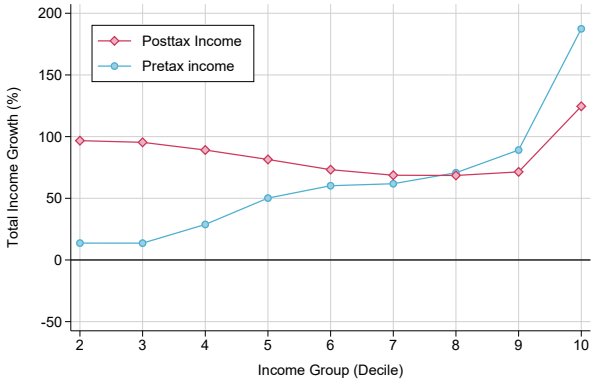
(A) Full Population



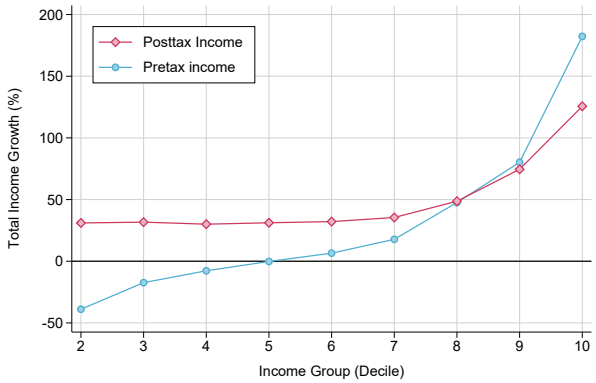
(B) Asian



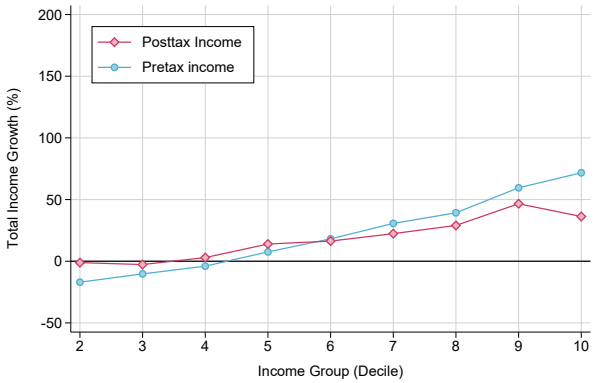
(C) Black



(D) Coloured

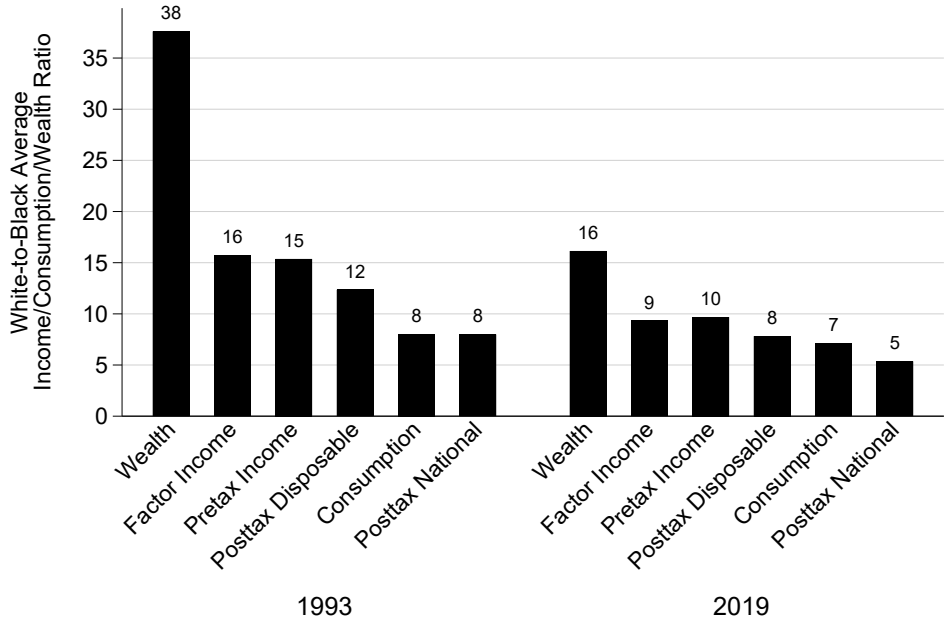


(E) White



Notes: The figure plots total real income growth by income group for the population as a whole (panel A) and within each racial group (panels B to E) from 1993 to 2019. The top 1% average income grew by about 50% in terms of pretax income, compared to less than 20% in terms of posttax income. The average pretax income of the top 10% of Black individuals grew by almost 200%.

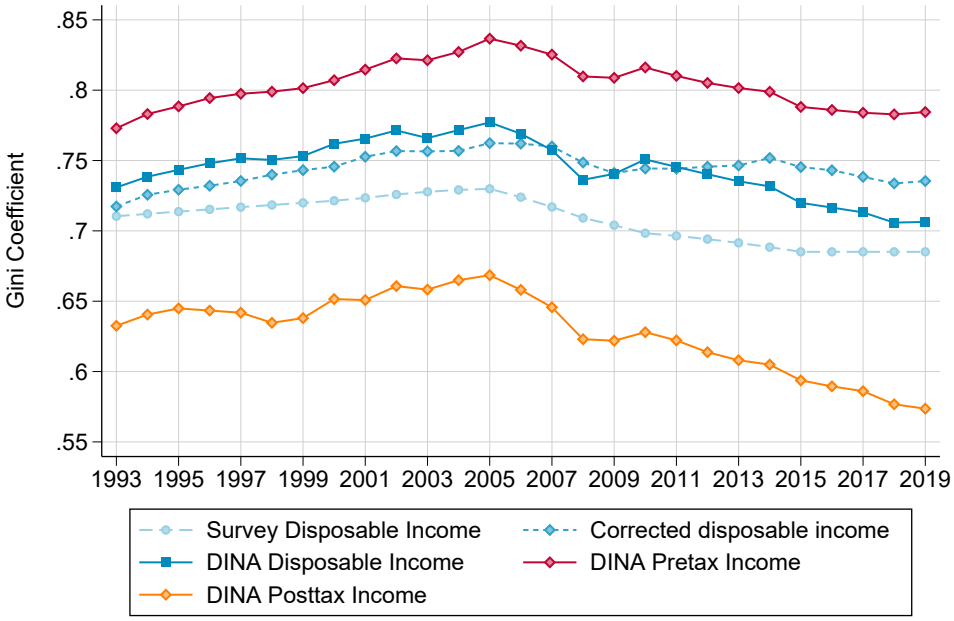
Figure A.12: Racial Inequality in Terms of Income, Consumption, and Wealth



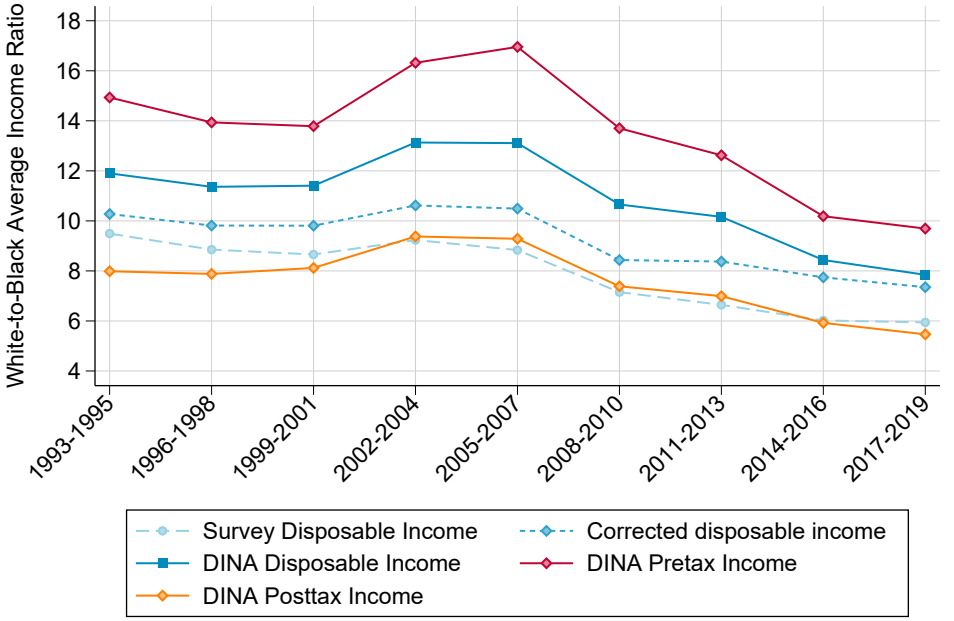
Notes: The figure plots the Black-to-White ratio in terms of wealth, factor income, pretax income, posttax disposable income, consumption, and posttax national income in 1993 and 2019. In 2019, White South Africans had an average wealth about 16 times higher than that of Black South Africans.

Figure A.13: Main Results by Methodological Step

(A) Gini



(B) Average White-to-Black ratio



Notes: The figure plots the evolution of overall inequality (panel A) and racial inequality (panel B) by methodological step and income concept. Survey disposable income: disposable income as reported in household surveys. Corrected disposable income: disposable income corrected for the underrepresentation of top incomes using tax data. DINA disposable income: disposable income after adding missing national income components (corporate undistributed profits, etc.) to individual incomes.