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**Research Report**

## Fiscal policy and income inequality: The role of taxes and social spending

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# Fiscal policy and income inequality

The role of taxes and social spending

Hazel Granger, Laura Abramovsky and Jessica Pudussery

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September 2022



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# Contents

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## **Executive summary / 2**

Taxes: findings and policy implications / 3

Social spending: findings and policy implications / 4

---

## **1 Introduction / 6**

1.1 Background and objectives / 6

1.2 Structure of the report / 8

---

## **2 Analytical framework and key concepts / 9**

2.1 Focus on within-country inequality and relationship to poverty reduction / 9

2.2 Why does income inequality matter? / 9

2.3 What is the role of taxes and social spending? / 11

2.4 Fiscal space for social spending: beyond taxes / 14

2.5 Practical challenges and opportunities for equitable fiscal reform / 15

---

## **3 Trends in within-country pre-tax income inequality: 1980–2019 / 18**

---

## **4 Trends in taxes and public spending: 1990–2018 / 24**

4.1 Trends in the level and composition of domestic revenue / 24

4.2 Patterns of public spending on social sectors across countries / 29

---

## **5 Evidence of fiscal redistribution / 33**

5.1 The distributional impact of taxes and social spending combined / 33

5.2 Analysis of individual fiscal instruments / 39

---

## **6 Implications and lessons for addressing income inequality through fiscal policy / 60**

6.1 Implications for tax and revenue mobilisation / 60

6.2 Implications for social spending / 63

---

## **7 Conclusions / 67**

---

### **Appendix 1 Measuring income, income inequality and the effect of taxes and social spending / 69**

---

### **Appendix 2 Matrix of fiscal policy instruments and design considerations / 76**

---

## **References / 82**

# Display items

---

## Boxes

**Box 1** The universal cash transfer programme in Iran / 64

## Tables

**Table 1** Pre-tax income Gini coefficients, country income groups average / 18

**Table 2** Redistributive impact of income taxes and direct transfers (2018 or latest available), country income groups averages / 35

**Table 3** Redistributive impact of fiscal systems on income (2016 or latest available), country income group averages / 36

**Table 4** Components of fiscal incidence analysis to estimate impact of fiscal policy instruments on income and its distribution / 71

## Figures

**Figure 1** Inequality convergence between country income groups (pre-tax income Gini coefficients), 1980–2019 / 19

**Figure 2** Pre-tax income shares by country income groups, 1980–2019 / 20

**Figure 3** Pre-tax income Gini coefficient by region, 1980–2019 / 22

**Figure 4** Average domestic revenue as a percentage of GDP by country income group, 1990–2018 / 25

**Figure 5** Domestic tax revenue composition by country income group, 1990–2018 / 27

**Figure 6** Level and composition of social spending across income groups of countries, latest available estimates, 1990–2017 (% of GDP) / 29

**Figure 7** Redistributive impact of income taxes and direct cash transfers / 34

**Figure 8** Redistributive impact of fiscal systems (2016 or latest available) / 37

# Acronyms

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<b>CEQ</b>	Commitment to Equity initiative
<b>CIT</b>	corporate income tax
<b>DINA</b>	distributional national accounts
<b>EATR</b>	effective average tax rate
<b>EITC</b>	earned income tax credit
<b>GDP</b>	gross domestic product
<b>GNI</b>	gross national income
<b>GST</b>	goods and services tax
<b>HIC</b>	high-income country
<b>IDA</b>	International Development Association
<b>IFPRI</b>	International Food Policy Research Institute
<b>ILO</b>	International Labour Organization
<b>IMF</b>	International Monetary Fund
<b>LAC</b>	Latin America and the Caribbean
<b>LIC</b>	low-income country
<b>LMIC</b>	lower-middle-income country
<b>MENA</b>	Middle East and North Africa
<b>NIC</b>	national insurance contributions
<b>ODA</b>	official development assistance
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PIT</b>	personal income tax
<b>PSNP</b>	Productive Safety Net Program (Ethiopia)
<b>ROSCA</b>	Rotating Savings and Credit Association (Kenya)
<b>SDGs</b>	Sustainable Development Goals
<b>SPFs</b>	social protection floors
<b>SSA</b>	sub-Saharan Africa
<b>SSC</b>	social security contribution
<b>UBI</b>	universal basic income
<b>UMIC</b>	upper-middle-income country
<b>VAT</b>	value added tax
<b>WID</b>	World Inequality Database

## Key messages

- Fiscal policy can reduce within-country income inequality by up to 40%. Richer countries have greater capacity to redistribute than poorer ones. Fiscal policy in low-income countries achieves only a 3% reduction in inequality on average.
- Variation in income inequality within country income groups suggests policy choices matter, beyond the level of development. While fiscal capacity needs to expand overall to achieve greater fiscal redistribution in most low-income settings, better-designed fiscal policy can also improve impact.
- Revenue mobilisation does not need to preclude more equitable policy choices since some revenue reforms can be both efficient at raising revenue and equalising, especially when combined with high-quality equitable social transfers. Lower income inequality before and after fiscal intervention can also be beneficial for economic growth and, in turn, for revenue mobilisation as the tax base expands.
- Opportunities for equitable economic growth include increasing progressivity of income tax, improving efficiency of consumption taxes, removing inefficient subsidies and tax exemptions to help finance enhanced social insurance and a mix of complementary in-kind transfers and targeted equitable cash transfers. The design and quality of cash transfers and in-kind transfers, through the delivery of health and education public services, are paramount to ensure positive net returns to fiscal intervention.
- Implementation of these reforms faces political and institutional challenges. Better analysis of net impacts of tax and spending on income inequality and poverty can inform country-specific choices, and a whole-of-government approach can help deliver them.



# Executive summary

This report provides a comprehensive and updated survey of the available evidence on the combined impact of taxes and social spending (cash transfers and health and education in-kind transfers) on within-country income inequality and poverty. It also looks at studies of individual fiscal instruments across countries with different income levels.

A better understanding of how to design tax and social spending policies to achieve the greatest impact on income inequality and poverty within existing constraints is crucial to inform countries' efforts to build more equitable and sustainable fiscal systems as they recover from the Covid-19 pandemic and tackle the impacts of high energy and food prices.

While inequality is often important from a political or ethical perspective, there is also an increasingly strong economic argument for addressing income inequality. The tension between equality and efficiency (and economic growth, in particular) that has underpinned arguments against progressive tax and spending systems is not supported by the empirical evidence. There is a cost to raising taxes and providing public services and social protection of course, including on incentives to save, invest and work. But it is important to assess the whole system so that the many benefits are considered together with costs to assess their net effects on societies and economies. Not all fiscal instruments have to be progressive, equalising and pro-poor; what matters the most is their combined effect on poverty and income inequality.

Our analysis shows that incomes before taxes and transfers in lower-income countries are

distributed more unequally than in others. We also show that in many countries, even in richer ones that are relatively equal, inequality is rising. Yet, within income country groups and geographic regions, there are high levels of heterogeneity in income inequality and poverty outcomes, both before and after the effects of fiscal policy are assessed. This heterogeneity suggests the importance of both political and social choices, as well as the design and implementation of policy. While lower-income countries have narrower tax bases and redistribute less than richer ones, there is evidence that social spending tends to expand as fiscal capacity expands. Even if richer countries are better equipped to address income inequality through tax and social spending systems, all countries can measure and improve the performance of policies to create more equitable and efficient outcomes. From our review of the evidence, we find the following:

- Fiscal policy can reduce within-country income inequality by up to 40%. The greatest impact on inequality has been in high-income countries (HICs) and upper-middle-income countries (UMICs), where fiscal capacity is high and there is a broad tax base. Fiscal policy in low-income countries (LICs) achieves only a 3% reduction in inequality on average.
- In richer countries, social safety nets and flexible tax policy played a key role in enabling a quicker recovery to the Covid-19 pandemic, and in some cases partially mitigated further poverty and inequality. This experience highlighted the need for fiscal systems to both be redistributive over the lifecycle, as well to build resilience during shocks.
- Revenue mobilisation efforts do not need to preclude more equitable policy choices since

some revenue reforms can be both efficient at raising revenue and equalising, especially when combined with high-quality equitable social transfers, both in cash and in-kind. Reduced income inequality that supports economic growth can also be beneficial for revenue mobilisation as the tax base expands.

- Evidence on the impact of tax and spending on income inequality shows that direct taxes and cash transfers and in-kind transfers (education and health spending) have the greatest equalising effect. Indirect subsidies are often not pro-poor and not the best way to address poverty and inequality.
- Analysis of the distributional impact of individual fiscal instruments suggests specific steps countries can take to foster a more equitable and fiscally sustainable economic recovery through both tax and spending policies (see also the summary in Appendix 2 Matrix of fiscal policy instruments and design considerations).

## Taxes: findings and policy implications

### Direct taxes

- Personal income tax systems are largely progressive and equalising. Most countries have progressive rate structures, but various factors have eroded progressivity over time. These include falling top marginal rates, fiscal drag bringing more poor individuals into the tax net, poorly targeted tax relief and lower marginal tax rates on capital income (and increasing share of capital ownership combined with greater tax avoidance opportunities among the rich).
- Corporate tax can be progressive if borne by capital owners, who tend to be richer than workers, and acts as a backstop to prevent the rich avoiding personal income tax, although empirical evidence on who bears the true burden of this tax is inconclusive.

- Wealth and property taxes can be designed to be income-equalising and can provide additional revenue especially for local service provision in the case of property taxes.
- Opportunities to improve progressivity of direct taxes include:
  - personal income tax: raising top marginal rates (evidence suggests there is scope to do this without negatively affecting economic growth)
  - adjusting lower rate thresholds for inflation to protect the poorest
  - improving progressivity of tax relief
  - equalising tax rates across sources of income, particularly across capital income from different types of investments
  - improving progressivity of property taxes and considering one-off wealth taxes
  - strengthening general compliance and administration, especially for multinationals and high net worth individuals

### Indirect (consumption) taxes

- General consumption taxes are typically an efficient source of revenue but mostly regressive, except with high levels of informality, when they may be progressive. Value added tax (VAT) exemptions on essential goods are inefficient compared to cash transfers as a means of protecting the poor.
- Excises and trade taxes have a mixed impact on inequality depending on consumption patterns across income levels. Excise duties on fuel are progressive in LICs and LMICs, but can be poverty-increasing. Health taxes (e.g. alcohol, tobacco) are more regressive and poverty-increasing, but both environmental and health taxes have wider benefits from curbing harmful consumption.

- Opportunities to improve revenue potential, progressivity and efficiency of indirect taxes include the following:
  - Aim for uniform rates for general consumption taxes (or reduced dispersion of tariffs in the case of trade taxes) and a broad, efficient base.
  - Remove VAT exemptions or reduced rates on essential goods, mitigating impoverishing effects with targeted cash transfers.
  - Set excise rates in line with wider social costs (externalities) to support health and environmental objectives and in some cases also raising additional revenue, with pro-poor compensating transfers.
  - Strengthen compliance and administration.
- National (contributory) social insurance schemes are not equalising if many are excluded due to unemployment or informal employment, requiring non-contributory cash transfers to be provided alongside contributory schemes.
- Opportunities to improve design and impact on income inequality and poverty include the following:
  - In practice, there is a continuum of options between targeted and universal transfers. Targeting can be designed to mitigate perverse incentives and simplify administration, while universal approaches can claw back unneeded funds from the rich through a progressive tax system. Universal approaches can also be narrowed to smaller groups through categorical targeting.
  - Most countries choose a combination of measures to suit the context. Options would depend on the objectives, budget and administrative and institutional capacity to deliver cash transfers.

## Social spending: findings and policy implications

### Cash transfers

- Cash transfer instruments are generally equalising and poverty-reducing, but impact varies depending on their financing, design, beneficiaries' behaviour responses and the underlying income distribution.
- Means-tested transfers targeted at smaller groups in need can have a more meaningful impact on beneficiaries but can be complex to administer and risk introducing perverse incentives if they are not carefully designed.
- Universalism (or at least universal basic social floors) can have a significant impact if there are sufficient resources to cover a wide population, and may be simpler to administer and more popular. Limited resources may mean benefits are inadequate and unnecessary for those on higher incomes.

### Indirect subsidies

- Indirect subsidies are not the most cost-efficient instrument to achieve inequality and poverty outcomes when compared to alternatives such as cash transfers.
- Opportunities to improve their design and the equality and efficiency of the fiscal system include the following:
  - Consider how best to remove these subsidies, compensating lower-income households with cash transfers for the increase in prices and/or using part of the revenues recouped by the removal of subsidies to finance a universal cash transfer (even if temporary) to compensate all households and achieve political buy-in.

## In-kind transfers

- In-kind transfers tend to be equalising and poverty-reducing – when assessed according to the cost of provision – as well as having the potential to increase human capital. Their impact depends on the level and type of spending on education and health, as well as the quality of service delivery.
- The value of health and education services for each household may be different to the cost of provision, which is less well documented and remains a critical gap for further research to evaluate and formulate better policies.
- Opportunities to improve their design and cost-effectiveness in achieving equality and poverty outcomes include the following:
  - Ensure expansion of access to high-quality education and health services in order to achieve meaningful outcomes.
  - Address corruption and waste. This is key, as is consideration of the role of subnational governments in delivery.

Estimates of the cost of providing universal basic income or basic social floors suggest that it may be fiscally achievable over the medium term in UMICs and some lower-middle-income countries (LMICs) with reforms to taxes and transfers, but the costs far exceed the potential from domestic revenue, budget efficiencies, borrowing or external financing in LICs. This suggests a more targeted approach to both tax and spending is needed until fiscal capacity expands.

A well-designed package of measures should be able to enhance fiscal capacity over time, as well as making better use of available resources to optimise impacts on inequality and governments' wider social and economic outcomes. Implementing these reforms faces political and institutional challenges. Better analysis and

understanding of net impacts of tax and spending on income inequality and poverty needs to inform country-specific choices. A whole-of-government approach and support and dialogue between government, citizens and partners to understand how the challenges and trade-offs can best be overcome will be crucial to deliver these reforms in practice.

# 1 Introduction

## 1.1 Background and objectives

While the last decade has brought improvements in living standards across the world,<sup>1</sup> there has been sustained interest in persistent high levels of income and wealth inequality within and between countries, and the role of national fiscal systems in reducing income and wealth inequality and poverty.<sup>2</sup> The interest of international and national policy-makers and the wider public has been amplified by the Covid-19 pandemic and emerging evidence on its social and economic impacts.<sup>3</sup> At the time of writing the pandemic is still ongoing and the full impact on within-country income inequality is unknown (Ferreira, 2021). However, available evidence shows that the crisis has most affected individuals with limited access to credit, capital and essential public services, and those with jobs not amenable to remote working or with no access to social protection. This means that the effects of the pandemic on income inequality will vary across countries depending on the specific structure of their economy and labour markets

and the strength of their social protection systems (Chancel et al., 2022). Evidence from previous pandemics, which were less widespread than Covid-19, indicates that an increase in income inequality is likely, especially where fiscal policy is constrained (IMF, 2021a). In this context, exacerbated by rising inflation and the global repercussions of the war in Ukraine, there are concerns that long-term progress towards better living standards and policy objectives around reducing poverty and inequalities, including within-country income inequality, set out under the Sustainable Development Goals (SDGs), will be undermined.<sup>4</sup>

This report examines the trajectories in within-country income inequality before taxes and social spending, and the role of national fiscal systems in addressing inequality and poverty, with a focus on lower-income countries.<sup>5</sup> By fiscal systems<sup>6</sup> we mean the combined effect of social policies (social protection transfers and social spending on transfers in-kind in education and health) and

1 See, e.g., UNDESA (2020); Piketty (2013; 2019); Alvaredo et al. (2018).

2 In total, 193 countries officially adopted the highly ambitious Sustainable Development Goals, which include addressing poverty (SDG 1, eradicating poverty) and income inequality (SDG 10, reduce income inequality within countries and across countries). This shows that there is a widespread declared intention among national governments and multilateral and international organisations to address these issues based on both equity values and efficiency considerations. See [www.un.org.cn/info/6/620.html](http://www.un.org.cn/info/6/620.html).

3 Estimates suggest both wealth concentration and poverty levels have been increasing since the start of the pandemic. For example, the number of billionaires increased from 660 to 2,755 in 2021 (Forbes, 2021). There were 5.2 million additional millionaires (Credit Suisse, 2021). An additional 75 million to 95 million people are estimated to be living in extreme poverty in 2022, compared to pre-pandemic projections (Mahler et al., 2022).

4 See, for example, Mahler et al. (2022).

5 In this report we use the term 'lower-income countries' to refer to countries classified by the World Bank as either low income or lower-middle income.

6 Throughout this report we will use interchangeably the following terms: 'fiscal systems', 'taxes and government spending', 'taxes and transfers' and 'taxes and benefits'. When discussing specific evidence, we will refer to the subset of fiscal instruments being analysed. We refer largely to formal fiscal systems but recognise that, in many lower-income country contexts, informal systems that affect income inequality and poverty are very prevalent (Evans and Salomon, 2020).

domestic revenue sources (mostly taxes, but also national insurance contributions). We will look at both the combined impact and, where possible, the individual impact of taxes and social spending on income inequality and poverty.

Our aim is to update and build on Bastagli (2015), which provided a synthesis of evidence on the incidence and distributional impact of taxes and social spending, and how mobilising domestic revenue sources could improve fiscal space for social protection financing.<sup>7</sup> Since 2015, new evidence assessing the distributional impact of fiscal policy has emerged covering a larger sample of countries, including lower-income countries. It is worth noting that the volume of academic and policy studies on this topic is vast and increasing. We aim to provide a comprehensive survey, synthesis and analysis of the main findings, but this is not a systematic literature review. It is also worth highlighting that the phenomenon of within-country income inequality is situated in the wider context of global income inequality. However, consideration of global inequality is beyond the scope of this report.

Our analysis highlights the heterogeneity within income country groups and across regions in their pre-tax income inequality trajectories and policy choices, resulting in significant differences in the income inequality and poverty outcomes achieved through fiscal redistribution. This shows that average national incomes are not a good predictor of income inequality, as shown by the diverging

trajectories of the US and European countries (Chancel et al., 2022). Even if the level of national income and development is positively associated with the ability of national governments to address income inequality through tax and social spending systems, and there are some common patterns driven by economic factors, the design and implementation of progressive tax and social spending systems are also the result of political and social choices.

The tension between equity and efficiency that has underscored much of the debate against progressive tax and spending systems because of their detrimental effect on economic growth is not supported by the empirical evidence. Of course, there are costs to raising taxes and providing public services, which affect incentives to save, invest and work, but also benefits; and these are not easy to measure. But there is a body of work that has examined the impact of income inequality on economic growth. Overall, this evidence is inconclusive and does not support unambiguously the idea that more progressive tax and social spending systems are detrimental to growth (Baselgia and Foellmi, 2022). In fact, the historic trajectory of HICs in the West suggests the opposite (Chancel et al., 2022). While the highly globalised and automated world looks different now to that which HICs faced a century ago, lessons from their experience are still relevant to today's inequalities. Moreover, recent evidence suggests higher market income inequality and

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<sup>7</sup> Fiscal space was traditionally defined as the 'room in a government's budget that allows it to provide resources for a desired purpose without jeopardizing the sustainability of its financial position or the stability of the economy' (Heller, 2005). More recently, concepts of budgetary space have been developed to include both revenue/finance and expenditure measures such as budget execution, thus encompassing public finance management decisions, to increase the budget allocated to specific areas like health, education or cash transfers. This is elaborated in Barroy and Gupta (2020; 2021) in the context of health systems. They argue that this framework can facilitate productive dialogue between health and finance policy-makers to enhance budgetary space for health systems.

weak redistributive policies are associated with lower and less sustainable economic growth (Berg et al., 2018).

Through this survey of evidence and review of economic principles, we aim to draw out practical implications for the design and financing of fiscal policy options relevant to policy-makers and their partners, particularly in lower-income countries. A better understanding of how to design tax and social spending policies to achieve the greatest impact on income inequality within existing constraints is crucial to inform countries' efforts to build more equitable and sustainable fiscal systems as they recover from the Covid-19 pandemic and confront the impact of the rising energy and food prices exacerbated by the Russia-Ukraine war and future economic uncertainties.

## 1.2 Structure of the report

The analysis is structured as follows:

- We start by providing an analytical frame, including a discussion on why tackling within-country income inequality is considered important. We also outline key concepts (Section 2).
- We next provide a description of national trends in pre-tax income inequality over the period 1980–pre-2020, i.e. income before taxes and social spending but after pension and unemployment contributions and benefits (Section 3).
- The ability of governments to influence income inequality depends on the size and composition of public spending and how this is financed. Thus, we provide a picture of the levels and composition of domestic (tax) revenue and public spending on cash transfers and transfers

in-kind, focusing on education and health (Section 4). We include a discussion on how this varies across different geographies and periods, and the drivers and implications of trends in fiscal policy regimes.

- We then present a comprehensive survey, synthesis and analysis of studies on the distributional impact of tax and transfers, both together and separately (Section 5). This provides the latest available evidence on the effectiveness of tax and transfers on income redistribution and poverty in different country contexts.
- We draw policy implications for the design and implementation of more equitable systems of taxation and social spending, emphasising their relative merits, opportunities and practical challenges, with a special focus on lower-income countries (Section 6).
- Finally, we provide concluding remarks and takeaways (Section 7).



## 2 Analytical framework and key concepts

This section explains why we focus on within-country inequality, why it matters and the framing principles we use as the basis for exploring the role of fiscal policy in addressing inequality. We also outline key factors in understanding how, in practice, governments approach this issue, including the effect of fiscal space limitations, political commitment to equity and institutional challenges in the design and delivery of redistributive fiscal policy.

### 2.1 Focus on within-country inequality and relationship to poverty reduction

**This report focuses on within-country income inequality and the role of national tax and spending policies in affecting these trends.**

While national income inequality is intrinsically intertwined with global income inequality between countries, this is not the focus of this report. There is a wealth of new evidence and literature on global inequality, its drivers and consequences, and implications for social justice, including the global and national policies that could address global inequality (see, for instance, Milanovic (2018) and Chancel et al. (2022)). Chancel et al. (2022) estimate that within-country inequality makes up about 70% of global inequality across the world population, whilst the remaining 30% is accounted for by differences in average incomes between countries.

**Even though poverty analysis is not the focus of this report, we look at how fiscal policies**

**can impact national absolute poverty counts.**

Income inequality is often correlated with poverty incidence, and reducing both global poverty and inequality are stated, first-order priorities for international multi-stakeholder partnerships, debates and policy initiatives.

**We present a significant portion of the evidence in this report using the World Bank's country income classification as a proxy for countries' relative levels of development.**

However, we emphasise the significant heterogeneity across countries within income groups and regional classifications. The World Bank's income classification from 2020<sup>8</sup> organises countries into four country income groups: high-income countries (HICs), upper-middle-income countries (UMICs), lower-middle-income countries (LMICs), and lower-income countries (LICs) based on the GNI per capita using the World Bank's Atlas method.<sup>9</sup> We acknowledge that, in the discussion around inequality and fiscal systems, this approach may seem oversimplified, though it is widely used for analytical purposes and for operational decisions around development assistance, albeit not without controversy.<sup>10</sup>

### 2.2 Why does income inequality matter?

**Historically, the question of inequality has been at the centre of political, economic, philosophical and wider debates in societies.**

The reasons why (income) inequality matters can

8 This link provides a description of the World Bank country income groups classification.

9 The Atlas Method is described here.

10 See, for instance, Fantom and Serajuddin (2016) and Prydz and Wadhwa (2019).



be broadly grouped into three categories: morality or fairness, efficiency or economic growth and politics (see, for instance, Milanovic, 2018).

**Societies may be intrinsically averse to income inequality on grounds of fairness or morality.**

Concerns about the impact of income inequality on equality of opportunities and social mobility may also be at play. In welfare economics terms, the presence of declining marginal utility of income implies that the poor may value a dollar more, so transferring a dollar from rich to poor may increase overall welfare. In this sense, there may be a moral motivation to address observed market income inequalities within a country. Some suggest that income inequality is not an issue per se; what matters, rather, is that some people do not have enough to ensure access to food, decent housing, education or health care. The argument is that ensuring everyone has enough to live a decent life (see, for instance, Frankfurt, 2015), rather than levelling income across society to eliminate inequality, should be the aim. The reduction of poverty and any subsequent reduction in inequality through taxation and transfers to the poor is then a side-effect of this aim. Some studies suggest that wellbeing can be negatively affected by localised income inequality, highlighting the importance of addressing within-country inequality if one considers broader wellbeing as the policy goal (Luttmer, 2005).

**From an efficiency point of view, evidence on the impact of inequality on economic growth (both theoretical and empirical) is inconclusive, though recently the negative correlation has been emphasised by policy and economics experts.** The mechanisms through which greater income inequality can have a growth-dampening effect include: (1) the suppression of aggregate demand by shifting a larger share of income to richer households

that save rather than spend (Bivens, 2017); and (2) inequality of opportunities (for example, by limiting investment in health and education), constraining social mobility of the most disadvantaged groups of the population and wasting talent (see, for example, Cingano (2014) for a review). Others argue that inequality in fact has growth-promoting effects because: (1) it can improve incentives to work harder and invest and take more risks in activities with higher rates of return (Mirrlees, 1971; Lazear and Rosen, 1981); and (2) higher income inequality leads to higher savings, needed to finance growth-enhancing investments (e.g. Kaldor, 1956; Bourguignon, 1981). The latter arguments lend support to the deep-seated, though not necessarily correct, belief among many economists and policy-makers that there is always a trade-off between equity and efficiency when choosing tax and spending policies. However, the empirical evidence on the impact of income inequality on economic growth is mixed and inconclusive (OECD, 2015; Baselgia and Foellmi, 2022). Furthermore, the negative correlation between economic growth and both market income inequality and inequality of income after redistribution through direct tax and transfers has been recently emphasised by policy and economic research (Ostry et al., 2014; Berg et al., 2018). This suggests that reducing market income inequality and redistributive fiscal policies can have a positive impact on sustainable economic growth.

**From a political perspective, evidence suggests that inequality may undermine democratic governance and political stability.** In countries governed by democratic systems, governance and political stability are in turn essential for economic growth (Alesina and Perotti, 1996; Keefer and Knack, 2002; Lakner, 2016; Agnello et al., 2017).

**In practice, most societies care about inequality in some shape or form, but how concerned they are, what level of income inequality is deemed tolerable, whether some inequality is inevitable and opinions about what the state should do to address these inequalities vary widely** (Johnson and Joyce, 2021). Market forces such as technological change and globalisation affect the distribution of what people are paid in the market, but so do social norms, and the tax and benefit system can redistribute market income, showing that governments can play an important role in shaping social norms towards market pay and the role of the state. The role of the state in addressing income inequalities and poverty is a political and societal choice, affected by complex dynamics that can change over time, and rising income inequality should not necessarily be seen as inevitable (Atkinson, 2015; Chancel et al., 2022).

### 2.3 What is the role of taxes and social spending?

**The observed increase in income inequality within countries has put the role of fiscal policy at the centre of national and global policy debates.** Calls for progressive tax systems to fund equitable access to public services and ensure social protection floors (SPFs) have been made repeatedly. Public policy can affect income inequality within countries in different ways, and fiscal policy is one of the key mechanisms. In fact, the diversity of (post-tax and transfer) income inequality within countries indicates that national fiscal policies matter.<sup>11</sup>

**The commitment and ability of governments to influence income inequality depends on the size and composition of public spending, its quality and how this is financed, including the size and composition of tax revenues, as well as a society's preferences for the role of the state.** The size of the state is typically correlated with national income. That is, the richer the country, the larger the share of national income spent or collected in tax (there are outliers, like the US).

**There is some evidence to suggest that, as incomes rise and domestic revenues expand, social spending also increases.** Long-term trends show that, as domestic revenues expanded across Europe, spending patterns shifted from covering basic state functions (defence, security and administration) to a broader range of functions including increasing levels of social spending (Piketty, 2019). Studies looking at a broader set of countries also find a positive correlation between tax revenues and social spending (Reeves et al., 2015; Carter and Cobham, 2016; Long and Miller, 2017).

**The specific design and implementation of individual taxes and social spending matters as well.** Some countries may raise the same share of national income in public revenues from personal income taxes, but their redistributive and poverty impact could diverge significantly depending on the policy details, including the quality and effectiveness of public services and transfer schemes.

<sup>11</sup> We focus on income inequality and poverty. However, we recognise the importance of increasing wealth concentration and how this is a source of growing economic inequality. Wealth inequality within countries is much higher than income inequality (Gupta, 2018) and is increasing.

**Considering jointly the net effects of taxes and social spending on income inequality and poverty is key, since the use of individual instruments may serve a multitude of objectives, one of which may (or may not) be income redistribution.** While many tax systems include progressive income taxes, which if levied on a broad section of the population will provide some income redistribution directly, the primary function of tax systems is typically to mobilise revenue to finance public spending. How revenue is raised matters, however, not just for income distribution but also for other policy objectives, including ensuring a conducive environment for business and investment through stable and transparent policy and fair and efficient administration of taxes. Through adjustments to relative prices, taxes can also provide incentives or disincentives for consumption or production that have wider costs or benefits to society (usually addressed through excise taxes). Broad-based consumption taxes are thought to be less progressive but better able to raise public funds efficiently, which can be used to finance progressive social spending.

**On the social spending side, the focus of this report is mainly on public expenditure on the three largest social sectors: social protection, health and education.** Social protection includes mainly: (1) social assistance (non-contributory transfers, conditional or unconditional cash and in-kind transfers or public works programmes); and (2) social insurance (contributory benefits mainly for old age and unemployment shocks). Social spending encompasses other sectors that may have some social purpose, such as public expenditures on water and sanitation. However, in many LICs and LMICs, health and education account for most social spending (Bastagli, 2015;

Zouhar et al., 2021). Nonetheless, it is important to ground the discussion in broader social spending and social policy, and where possible we include in the discussion other spending that can be considered social spending, such as indirect subsidies (including expenditure through the tax system in the form of reduced rates or exemptions) to fuel, food and water consumption.

**Like tax instruments, the objectives of social spending are typically also manifold and are not solely or necessarily focused on pure redistribution.** Social protection systems may be focused on poverty reduction, providing minimum living standards or services and smoothing incomes of individuals over the lifecycle.<sup>12</sup> The provision of education and health services may aim to level opportunities or address social externalities and efficiency considerations. While such policies may have some redistributive effect on income, the explicit objective may not be entirely focused on this, and there may be other policy packages that could maximise the overall redistributive effect.

**On the tax side, the focus of the report (as with most available fiscal incidence analysis) is on the following groups of taxes: (1) direct personal taxes (mainly personal income tax on earned income and property and land taxes); and (2) indirect taxes.** Corporate income tax (CIT) is not systematically analysed across countries. This is due to extra challenges of modelling the economic incidence of this tax on workers and capital owners, and hence households, causing disagreement among researchers on how best to do this and resulting in a lack of comparable empirical studies across

12 As is the case with some old age pension programmes.

countries. However, we do discuss the role of CIT and the evidence from the few relevant studies available.

**On the transfer side, the fiscal incidence of the following groups of transfers and subsidies is included in the cross-country analysis: (1) cash and near cash transfers<sup>13</sup> (also referred to as direct transfers, both contributory and non-contributory); (2) indirect subsidies, mainly general or targeted consumption subsidies such as those to fossil fuels and food; and (3) in-kind transfers, comprising mostly free government services in healthcare and education (Lustig, 2018).** As such, we omit from the cross-country evidence discussion some important categories that are likely to account for a significant share of total government spending in some countries, such as specific water and sanitation subsidies, but reference individual relevant studies.

**Finding the right balance of tax and spending to address income inequality requires raising revenue efficiently, while addressing economic efficiency and equality objectives.** For example, tax instruments can be both a tool for raising revenues and a tool for redistribution in themselves (in the case of progressive income taxes, for example), or they can be designed to raise revenue in the most efficient way to finance redistribution through spending, or some combination of the two. If the objective is to reduce income inequality, it is important to recognise that not all taxes have to be progressive and equalising: what matters is the impact of the system, including different taxes, cash transfers, subsidies and transfers in-kind.

**This balance is especially important in settings where resources are constrained and there is greater need for revenue mobilisation.** Even in lower-income contexts with limited resources, there are still opportunities to create fiscal space and design policies that are targeted more effectively to lessen market inequalities (Ravallion, 2008). Despite the increasingly global nature of our world, the capacity to reduce within-country inequality may remain largely in the hands of national governments (Anand and Segal, 2015).

**Non-tax revenues, particularly those collected from natural resources (such as mining or oil and gas royalties), can also be significant, but little is known about their impact on income inequality.** Discussion of resource revenues in the literature tends to focus on the macroeconomic effects of the ‘resource curse’ or ‘Dutch disease’,<sup>14</sup> but most tax incidence studies do not include non-tax revenue. Since resource revenues are also subject to the volatility of global commodity prices, countries are often encouraged to focus on broadening the tax base to ensure more sustainable non-resource revenue. For these two reasons we focus on tax revenue, rather than non-tax revenue, in this report. Having said this, it is worth noting that the distributional impact of natural resource revenues tends to be discussed in the literature in terms of how the funds are spent or whether there is an allocation of revenues shared between the national budget and local communities directly affected by the extractive industries. The spending debates acknowledge that, as finite resources owned by the state (including its citizens), natural resource revenues should be enjoyed by future generations as well as used to fund existing priorities. Fiscal rules,

13 These are conditional and unconditional cash transfers, non-contributory pensions, school feeding programmes, free food transfers and contributory pensions (Lustig, 2018: Figure 1-1).

14 See, for example, Ebrahimzadeh (2020) for a discussion of the literature and key concepts.

fund arrangements and governance procedures can therefore be designed to ensure the effective management of resource revenues to balance longer-term investments, savings and annual spending, as well as improving macro-fiscal stability and mitigating ‘Dutch disease’.<sup>15</sup>

**Addressing income inequality in the short and long run will also require policies that affect market income (before taxes and social spending).** This includes policies beyond tax and transfers, such as employment and wage policy, regulation and other economic policies (Blanchard and Rodrik, 2021). Taxes and social spending can also affect future outcomes. For example, public spending in health and education can lower out-of-pocket health or education spending of low-income households and has the potential to improve health and education in the future, affecting intergenerational outcomes and alleviating future market income inequality. Progressive personal income taxes can redistribute income today whilst changing work, saving and investment incentives in a way that affects market income distribution in the future.

## 2.4 Fiscal space for social spending: beyond taxes

**Fiscal space can be created through raising additional tax revenues, raising debt, reallocating existing resources within the public sector or via accessing external grants in the form of aid or debt relief.** Together, these form what has been referred to as the ‘fiscal space diamond’ (Aguzzoni, 2011; Roy et al., 2012). While taxes may be costly to raise and administer, higher levels of debt can lead to macroeconomic instability and unsustainable debt servicing

obligations. Reallocation of spending can happen in several ways, for instance scrapping generalised subsidies, which may be ill-targeted to the poor, in favour of more inclusive and progressive social assistance (or non-contributory transfer) programmes (Zouhar et al., 2021).

**The choice of mechanism for expanding fiscal space matters for long-term growth and fiscal capacity.** For instance, rapid expansion in debt may crowd out private investment, in turn reducing fiscal space in the long run. Alternatively, reallocations of public expenditure towards social spending could also lead to reductions in capital spending on infrastructure that could be detrimental, particularly in lower-income countries which have higher returns to investment (see, for instance, Zouhar et al., 2021). If using tax instruments, consumption taxes are considered more efficient and better for economic growth than income taxes (Acosta-Ormaechea et al., 2018) and are a powerful tool to mobilise domestic revenue that can be part of an overall progressive tax and spending package. Finally, in the context of fiscal consolidation following an economic downturn (e.g. in the aftermath of the Covid-19 pandemic), evidence suggests that a revenue-led consolidation is less harmful for growth and inequality than cutting public investment or consumption in lower-income countries (Arizala et al., 2021; Clements et al., 2021), whereas for OECD countries, expenditure-based consolidations have less damaging impacts on output and employment than revenue-based ones (Alesina et al., 2019a).

<sup>15</sup> See, for example, Quak (2020) for a discussion of lessons from the use of fiscal rules and frameworks in lower income countries for managing resource revenues.

**The concept of budgetary space extends the concept of fiscal space to include both revenue and expenditure measures within a public finance management framework.** Barroy and Gupta (2020; 2021) introduce the new notion of budgetary space, which expands the concept of fiscal space with the aim of empowering policy-makers in charge of budget execution to make positive changes in the way the funds are used beyond allocated resources. This emphasises the importance of quality of service delivery and budget execution.

**Aid flows and borrowing options and their associated costs are dependent on the level of national income.** Bilateral and multilateral aid flows are a particularly important source of financing for lower- and middle-income countries, and the income classification used by these organisations affects the supply of loans available to countries. In addition, lower-income countries may lack access to international capital markets or face relatively high levels of interest compared to richer countries, increasing the burden of debt servicing and reducing fiscal space (Nair et al., 2021).

**International aid flowing to lower-income countries helps fund social sectors, mostly education and health, whilst resources allocated to social protection are more limited and ill-targeted to countries that need it the most.** Social protection as a share of total official development assistance (ODA) globally was relatively small before the pandemic, representing less than 2% of the total ODA budget globally. Most ODA funds for social spending are allocated to education and health. Compared to ODA funding to other (non-social) sectors, social

protection ODA was relatively well-targeted at LICs,<sup>16</sup> but it was still insufficiently targeted to those LICs that needed it most and was insufficient to meet their financing gaps (McCord et al., 2021).

## 2.5 Practical challenges and opportunities for equitable fiscal reform

**High-level advocacy on the SDGs and SPFs can help build consensus for reform and development of more effective and equitable systems of taxes and social spending.** In all, 193 countries have officially adopted the ambitious SDG agenda, including the eradication of poverty (SDG1) and income inequality within and across countries (SDG 10). SDG 1.3 includes the introduction of social protection floors. These are nationally defined goals to ensure universal access to a level of health care deemed essential and basic income security throughout people's lifetime to live a life in dignity (SDG 1.3 and ILO SPF Recommendation 2012 (no. 202)). The focus is on covering whole populations, and particularly the poor and the vulnerable (those unable to work due to disability, paternity/maternity, sickness or disability or other reasons).

**Institutional arrangements often do not create incentives for policy-makers across relevant parts of government to collaborate and improve existing fiscal systems that meet multiple policy objectives.** Tax and social protection systems are viewed separately, making it difficult to combine packages of reforms. For example, a study of the tax policy-making process in Uganda (Wales and Lees, 2020) found that the tax policy function had a 'narrow focus on the

<sup>16</sup> LICs received 55% of ODA to social protection in 2019, compared to an estimated flow of only 32% of total bilateral ODA and 11% of international financial institution ODA to LICs in 2020.



component parts of the tax system and [made] too small a contribution to the development of solutions to major economic and social policy problems that might require, or benefit from, the use of a variety of tax levers'. A tax policy proposal that is regressive could prove highly unpopular within government as well as publicly when not clearly taken together with a complementary compensating spending policy.

**Some studies indicate a lack of strong organised political support for redistribution through fiscal policies in lower-income countries.** For instance, few governments in sub-Saharan Africa (SSA) are elected on a platform of higher, broad-based taxation to fund better service provision that is more equitable and pro-poor; rather, the focus tends to be on (largely unfunded) economic development promises (Fjeldstad and Therkildsen, 2020; Simson and Savage, 2020). This may reflect an economic growth and efficiency imperative which may be perceived as a trade-off with equity, though it does not need to be.

**More progressive taxation relies on public support and a 'social contract' that includes a level of acceptance by the rich to be taxed. This is often lacking.** Relatively high levels of tax avoidance and evasion among the rich, for whom low-tax offshore options are more accessible, may represent a breakdown in this social contract. Alstadsæter et al. (2019) discuss this in the context of Scandinavian countries, and suggest that it is likely to apply to other contexts. Political incumbents in many countries often include

wealthy elites, who will advocate for policies that benefit those with above-median incomes (Besley and Parsson, 2014).

**In some circumstances, the pandemic may present opportunities for building public support for progressive taxation, including elite 'collective action'.** Political economists have argued that states' ability to mobilise tax revenue is shaped by patterns of 'elite collective action' in response to threats from 'below' (Slater, 2010; Steinmo, 2018). Slater (2010) argues that, in situations of intense conflict that threaten the property or welfare of elites, they may come together to form 'protection pacts' that support a strong, well-funded and durable political regime.<sup>17</sup> The Covid-19 pandemic posed a significant threat in terms of health and economic interests across economies globally. In some countries, this led to increased public support for progressive taxation to finance the response and ensure a fairer burden of taxation.<sup>18</sup> Yet, countries that place an increasing burden on the middle classes, from increasing tax incidence and deprioritising social assistance,<sup>19</sup> face rising resistance to more progressive taxation. Gupta and Tovar Jalles (2021) find that past pandemics have induced countries to implement tax reforms, particularly in corporate income taxes, excises and trade taxes, rather than more progressive personal income taxes.

**Public trust and stronger connections between taxes and public services can help build public support and tackle resistance to progressive taxation.** Besley and Persson (2014) show that the higher the perceived levels of corruption,

17 In Malaysia and Singapore, for example; in regimes that mobilise fewer of these elites and resources are weaker and less stable, like the Philippines, Thailand and Vietnam, revenue mobilisation is less successful.

18 For example, Ipsos-Mori (2020) found high levels of support for a net wealth tax in the UK. There have been calls in the US to tax the rich more (<https://patrioticmillionaires.org/2022/04/19/this-tax-day-its-all-about-billionaires/>).

19 Such as some Latin American countries during the Covid-19 pandemic (Blofield et al., 2021).

the lower the tax take as a share of national income. A lack of trust in government and poor communication of the intended benefits can lead to a lack of public support.<sup>20</sup> Higher levels of trust in political institutions can reduce opposition from the affluent towards more progressive taxation, since effective spending facilitates investment in sectors that will generate economic gains for earners (Berens and von Schiller, 2017).

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20 As with the recent protests around tax reforms in Colombia (see, for instance, [www.bloomberg.com/news/articles/2021-05-13/colombia-s-tax-reform-backlash-warns-others-not-to-balance-budgets-just-yet](https://www.bloomberg.com/news/articles/2021-05-13/colombia-s-tax-reform-backlash-warns-others-not-to-balance-budgets-just-yet)).



### 3 Trends in within-country pre-tax income inequality: 1980–2019

Before looking at the impact of fiscal policy on income inequality, we provide an overview of the baseline trends in within-country income inequality across country income groups.

**Data across countries on within-country pre-tax income inequality<sup>21</sup> shows that lower-income countries are more unequal than richer ones.**

Pre-tax income inequality appears to be negatively correlated with national income. HICs on average have the lowest pre-tax income Gini coefficients (greater equality) over the period 1980–2019 (Table 1), followed, in order of country income groupings, by UMICs, LMICs and LICs. The measure of pre-tax income in this dataset includes social insurance benefits (pensions and unemployment benefits, net of contributions), which, according to Chancel et al. (2022), play

the most significant role in redistributing market income, more than taxes and social spending, particularly in HICs and UMICs. This may explain, to some extent, the lower levels of pre-tax income inequality observed in these countries relative to LMICs and particularly LICs, where social insurance systems are only emerging and have a very limited role (as discussed further in Sections 4 and 5).<sup>22</sup>

**Richer countries are getting more unequal on average and lower-income countries less unequal, suggesting some convergence of inequality over time.** The convergence in average country income group inequality levels observed in Figure 1 was primarily driven by an increase in inequality in richer countries and a slight decrease among LICs. Within-country pre-tax income

**Table 1** Pre-tax income Gini coefficients, country income groups average

Country income group	1980 Gini coefficient	2019 Gini coefficient	Percentage point increase (decrease)
HICs	46.2%	50.0%	3.8
UMICs	56.1%	57.4%	1.3
LMICs	59.5%	58.6%	(0.9)
LICs	61.8%	59.7%	(2.2)

Source: Authors' own elaboration based on World Inequality Data.

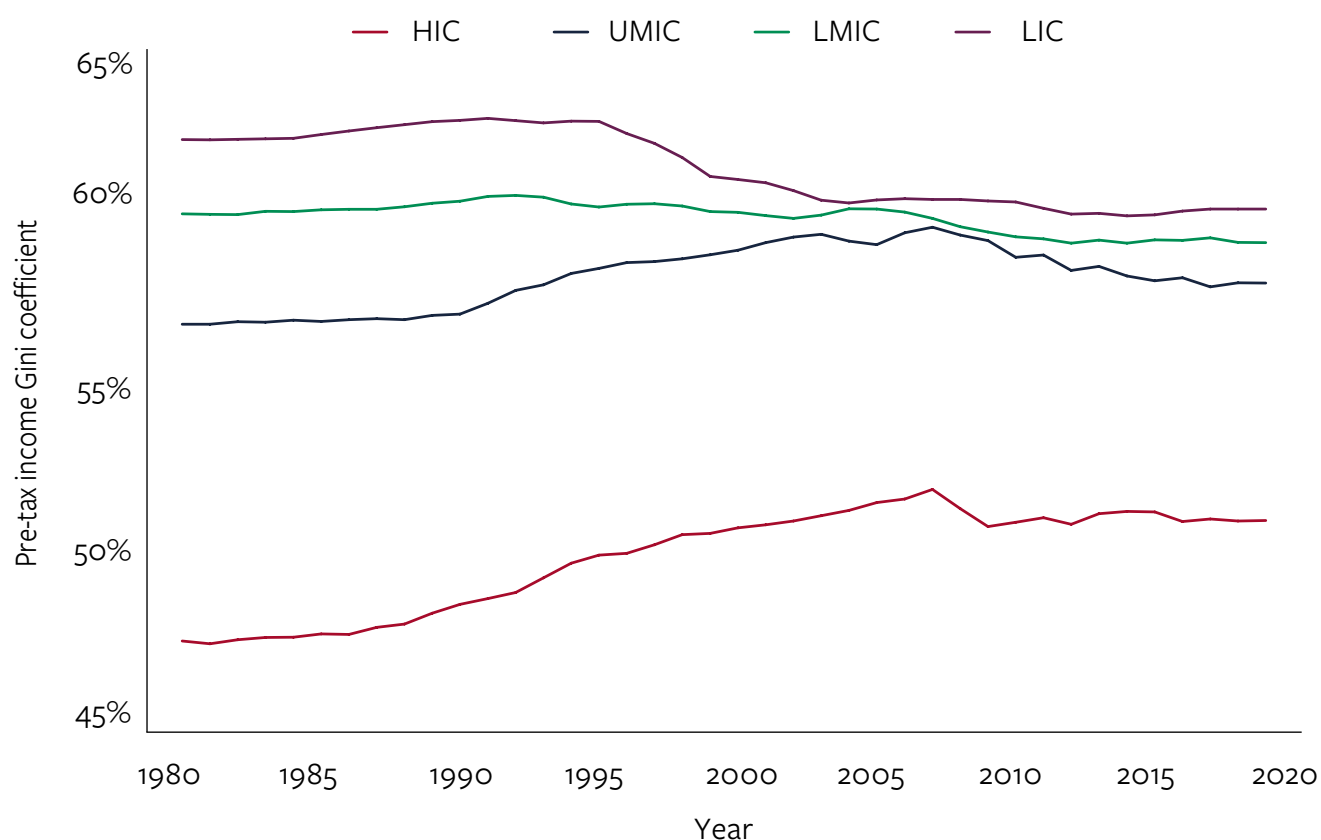
<sup>21</sup> Measured by pre-tax income Gini coefficient, as discussed in Appendix 1.

<sup>22</sup> It is worth noting that the average levels across country income groups and the ranking of the groups according to the average Gini in pre-tax income shown in Table 1 is different to what is observed when looking at market income measures for a smaller sample of countries (using a different methodology) in Section 5.

inequality, as measured by the Gini coefficient, is shown in Figure 1 and Table 1.<sup>23</sup> Between 1980 and 2019, the average Gini coefficient increased by 3.8 and 1.3 percentage points in HICs and UMICs from a 1980 base of 46.2% and 56.1%, respectively. LMICs and LICs, on the other hand, experienced

a decrease of 0.9 and 2.2 percentage points in the average Gini coefficient, from 59.5% and 61.8%, respectively, over the same period.

**Figure 1** Inequality convergence between country income groups (pre-tax income Gini coefficients), 1980–2019



Note: The lines show the simple (unweighted) average pre-tax income Gini coefficient across each country income group.

Source: Authors' own elaboration based on World Inequality Data.

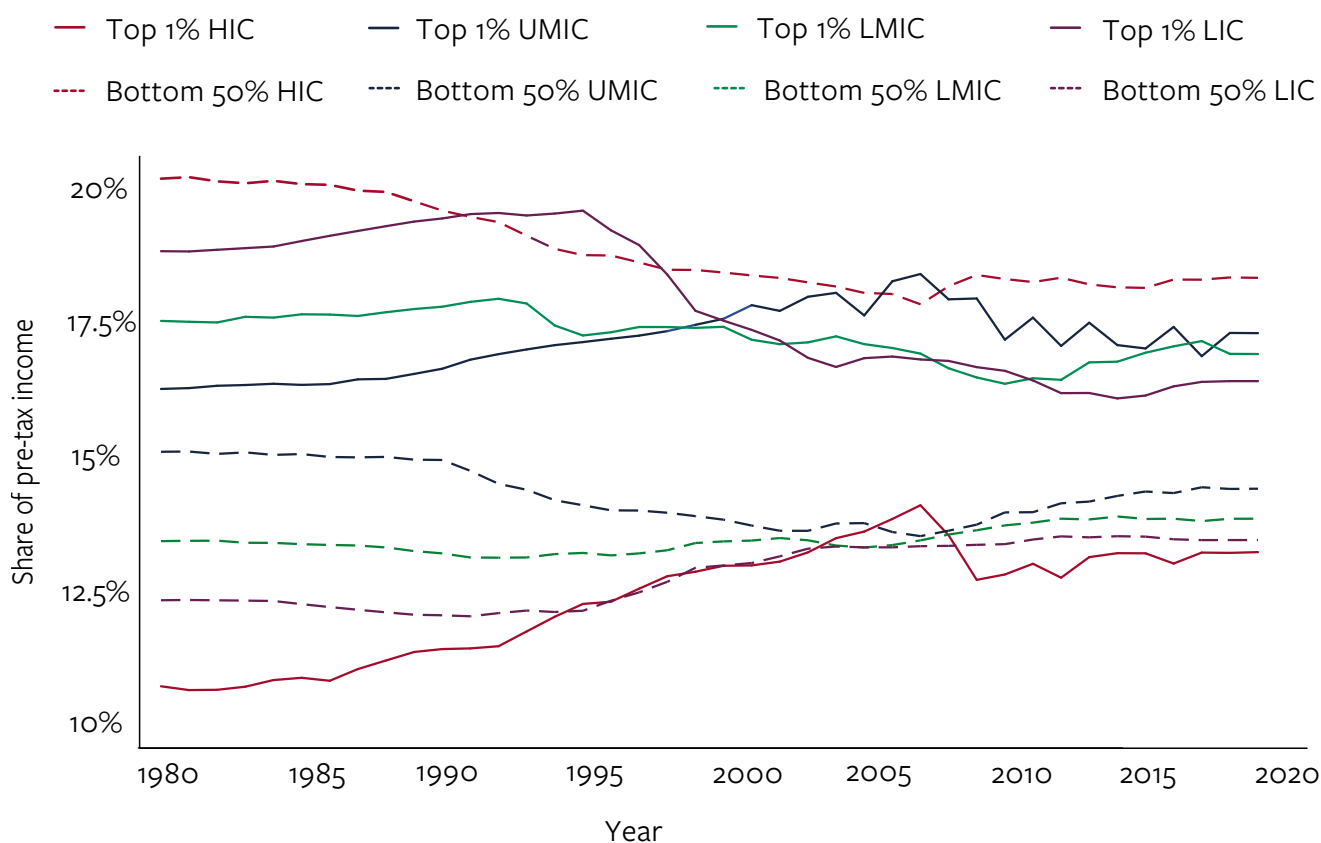
<sup>23</sup> We focus on within-country income inequality, but it is worth noting that global inequality in pre-tax income declined: the global Gini coefficient (adults) fell from 68.9% in 1980 to 66.3% in 2019 (WID, April 2021), mostly driven by economic growth in populous countries like India and China causing convergence across country incomes (Alvaredo et al., 2018). However, there is divergence in income shares globally: the bottom 50% captured only 12% of total real income growth per adult in 2016 (from 7% in 1980) while the top 1% captured almost 20% of total global income by 2016 (27% of growth) (Alvaredo et al., 2018). Emerging evidence shows that global inequality has increased following the Covid pandemic (World Bank, 2022).

**This convergence can also be seen in the share of income earned by the top 1% compared to the bottom 50%.** Figure 2 charts pre-tax income shares accruing to the top 1% richest individuals in a country (solid lines) and to the bottom 50% poorest individuals in a country (dashed line) over the period 1980–2019. The share of income accruing to the top 1% grew steadily until the financial crisis of 2008 in HICs and UMICs, and declined slightly thereafter. Over the same period to 2008, the share of national income accruing to the bottom 50% decreased

among HICs and UMICs on average.

As of 2019 this remains lower than historical levels, at 18.4% and 14.4%, respectively. In LMICs and LICs the share of the top 1% decreased until 2010 (until around 2005 for LICs), reaching 17% and 16.4% in 2019, respectively. At the same time, the share of the bottom 50% increased, particularly between 1995 and 2005 for LICs, after which the trend flattened. In 2019, the share of the bottom 50% was 13.9% and 13.5% for LMICs and LICs, respectively.

**Figure 2** Pre-tax income shares by country income groups, 1980–2019



Note: The lines show the simple (unweighted) average pre-tax income share across each country income group accruing to the top 1%, top 10% and bottom 50% of the population. The pre-tax income variable is the same as used in Figure 1.

Source: Authors' own elaboration based on World Inequality Data.

**The top 1% of adults receives a higher overall share of income than the bottom 50% combined in all non-HIC groups on average.**

Figure 2 shows that more pre-tax income accrues to the very highest earners than to half of the adult population on average in LICs, LMICs and UMICs, suggesting a high level of income inequality using this alternative measure.

**Emerging evidence suggests that the Covid-19 pandemic has resulted in an increase in income inequality within countries before government intervention.**

Some microsimulation studies have modelled the impact of pandemic lockdowns on incomes ‘at risk’ across affected sectors. These indicate the scale of impact on poverty and inequality that would have been observed without policy packages to mitigate the effect, and reveal increases in both income inequality and poverty.<sup>24</sup> Across countries in all income groups, this has been attributed to the fact that the pandemic hit lower-income individuals harder in terms of jobs losses, with long-lasting scarring effects on human capital and employment, and an inability to take advantage of remote working (Stantcheva, 2021b; World Bank, 2022).

**While there may be convergence on average between country income groups, income inequality varies significantly across countries and regions, reflecting different paths of development and different policy choices.** Figure 3 shows pre-tax income Gini coefficients by region. While it indicates broad convergence at higher levels of inequality across all regions, there are a variety of experiences within regions. The importance of national policies in shaping inequality of both market and

disposable income cannot be overstated even in a globalised world, and less so still in a post-2019 world where the Covid-19 pandemic may have induced some degree of deglobalisation (see, for instance, Antras, 2020).

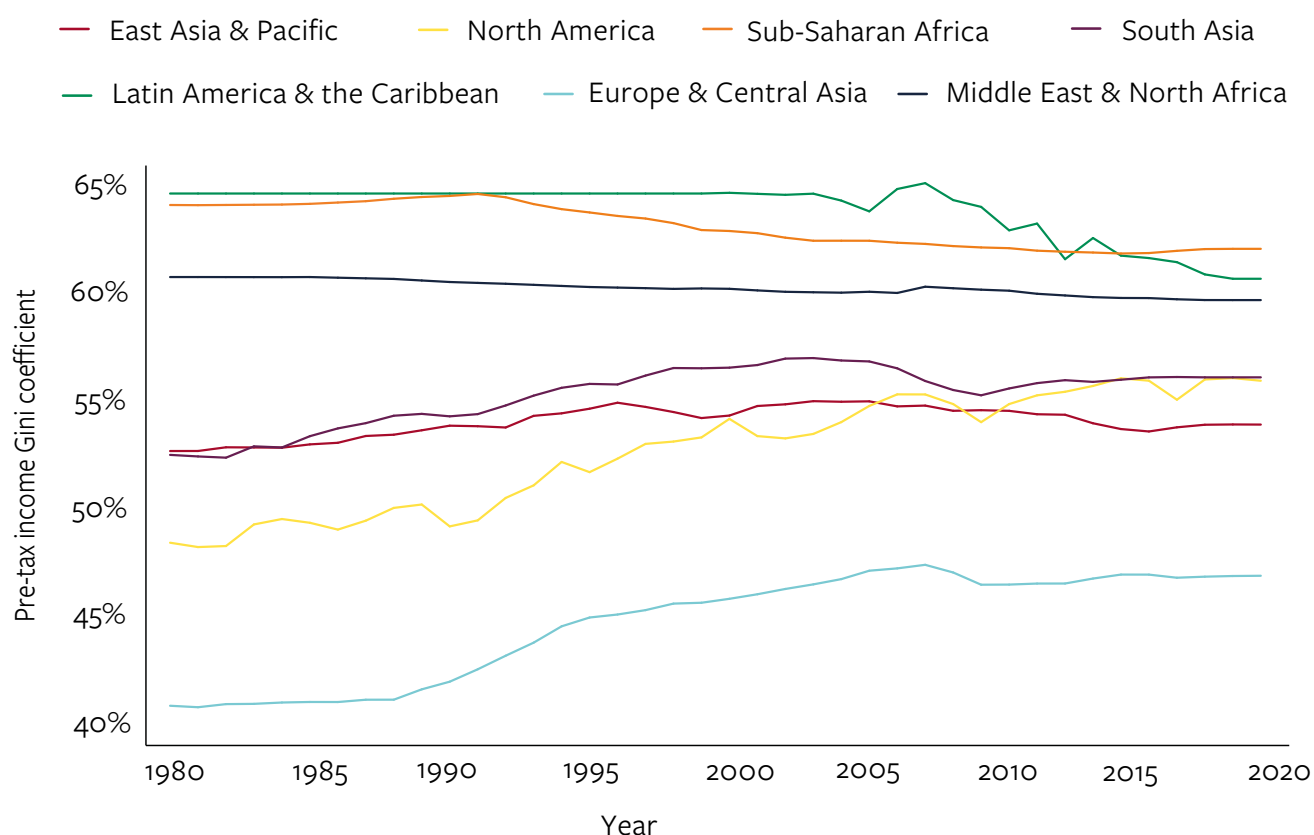
**The Middle East and North Africa, Latin America and the Caribbean and SSA have the highest income inequality in the world, with Gini coefficients at around 60% or above.**

On average, inequality remained relatively stable in the MENA region, and showed a decline in Latin America and SSA. However, these regions host the majority of the world’s most unequal countries. The most unequal countries as of 2019 were Peru (68%), Guinea-Bissau, Angola, Brazil and Chile (69%), Mexico, Botswana and Eswatini (70%), Zambia and Mozambique (73%), Namibia (74%), South Africa (75%) and Sao Tome and Principe (76%).

**There is wide variation in income inequality across countries within these three regions.**

Some large countries, such as South Africa, Brazil, Chile and Mexico, experienced significant increases in inequality after 1980. Others saw a decline in inequality over the same period. For example, Mali’s Gini coefficient decreased from 68% in 1980 to 53% in 2019. The country with the lowest Gini value was Mauritania (52%, down from 60% in 1980). In Latin America and the Caribbean, Argentina, Cuba and Uruguay are among the least unequal, with a Gini of 53%, 51% and 52%, respectively, in 2019. All three experienced a decrease since 1980.

<sup>24</sup> Emerging evidence finds this pattern in Brazil, Argentina, Colombia, Mexico (Blofield et al., 2021), Ecuador (Jara et al., 2021), Zambia, Mozambique and Tanzania (Lastunen et al., 2021).

**Figure 3** Pre-tax income Gini coefficient by region, 1980–2019

Note: The lines show the simple (unweighted) average pre-tax income Gini coefficient across each region. The pre-tax income variable is the same used in Figure 1.

Source: Authors' own elaboration based on World Inequality Data.

**Variation in pre-tax inequality across countries is also observed among HICs, with the most striking difference being between the US and Europe.** The US and Europe show significant differences in inequality levels, with Gini coefficients of 58.2% and 48.2%, respectively.

The most equal countries in the world in 2019 were in Europe: the Czech Republic (pre-tax income Gini of 38%), Sweden and Iceland (39%), Slovakia (40%) and Norway and Slovenia (41%). The striking differences between the US and Europe have been explained by factors including a stronger preference for a more active and

larger state and redistributive policies in the Europe relative to the US, and perceptions about underlying income inequality (see, for instance, Alesina et al., 2019; Stantcheva, 2021a).

**Changes in income inequality do not necessarily coincide with changes in poverty.**

China is a good illustration of this: inequality within the country increased during a period of significant poverty reduction. Earlier this year, the government declared 'complete victory' over extreme poverty<sup>25</sup> after the poverty headcount ratio fell from around 90% 40 years ago to less

than 1% in 2019.<sup>26</sup> At the same time, the pre-tax income Gini rose from 39% in 1981 to 56% in 2019 (Jain-Chandra et al., 2018).

**While it appears that addressing poverty does not always have a significant impact on inequality, at least in the countries with large populations of extreme poor, there is some evidence to suggest that addressing inequality can have an important impact on poverty.**

Cross-country modelling by Lakner et al. (2019) found that the income distribution can affect the way in which economic growth feeds through to poverty reduction, estimating that ‘reducing each country’s Gini index by 1% per year has a larger impact on global poverty than increasing each country’s annual growth 1 percentage point above forecasts’.

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26 World Bank Data, 2021: Poverty headcount ratio at national poverty lines (% of population) – China.

## 4 Trends in taxes and public spending: 1990–2018

**As discussed in Section 2, the ability of governments to influence income inequality depends partly on the level of revenue and spending, as well as how it is raised and spent.** In this section we provide an overview of trends across country income groups in the levels and composition of domestic tax revenue (direct and indirect) and public spending on social sectors (social protection through direct transfers and wider social spending transfers in-kind, focusing on education and health). We include a discussion on how this varies across different geographies and time periods, the drivers, and the implications for fiscal capacity for redistribution.

### 4.1 Trends in the level and composition of domestic revenue

**While the amount of total domestic revenue collected as a share of GDP varies across countries, richer countries tend to collect more than poorer ones.** Figure 4 shows that, in 2018, on average HICs collected domestic revenue close to 38% of GDP, compared with 28% in UMICs, 23% in LMICs and 17% in LICs (yellow bars).<sup>27</sup> However, LICs have expanded their revenue collection more than HICs: since 1990, total revenue as a share of GDP has increased only 2 percentage points (from 36% to 38%) in HICs, compared to 8 percentage points in LICs (from 9% to 17%). A significant share of this revenue in all country income groups comes from natural resources and non-tax sources, ranging from 5% of GDP in LICs to 8% in HICs in 2018. Since natural

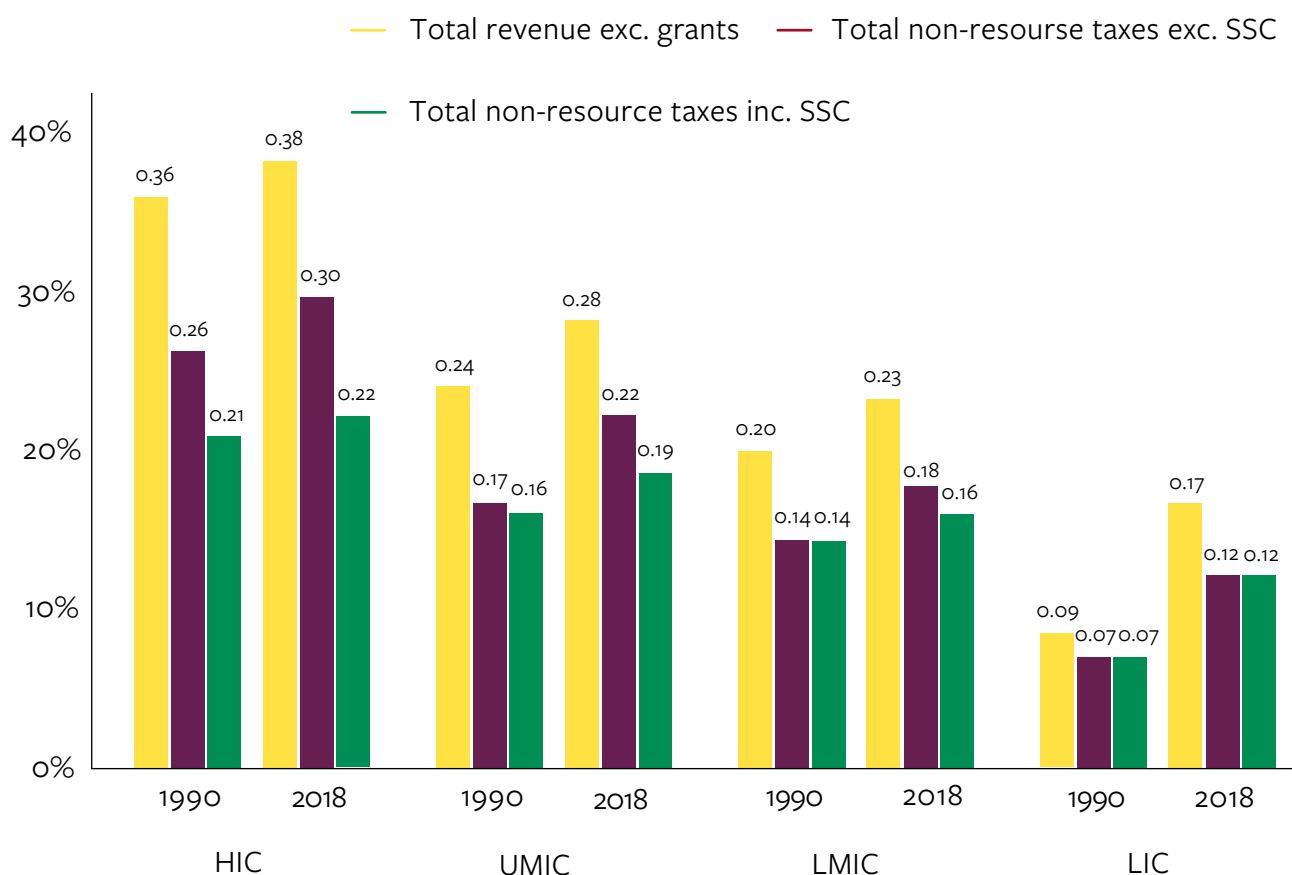
resource revenues tend to be more volatile, and data on collections is patchy, a better indicator of countries' revenue capacity is non-resource tax revenue excluding social security contributions (green bars in Figure 4).

**The tax-to-GDP ratio is also correlated with national income and has expanded across all country income groups since 1990, with the greatest growth observed in LICs.** On average, HICs, UMICs, LMICs and LICs collected tax revenues totalling 22%, 16%, 14% and 12% of GDP, respectively. Over the same period, the tax-to-GDP ratio increase by 5 percentage points, from 7% in 1990 (around a third of HICs' tax-to-GDP ratio in that year) to 12% in 2018 (over half of what HICs collected in 2018).

**While LICs collect significantly less than HICs, LICs today collect relatively more tax than current HICs did at a similar or higher level of development** (Miller and Long, 2017; Tanzi and Schuknecht, 2000). Total revenue (including social contributions) in rich countries was below 10% of GDP until the First World War, when it began to increase until a peak in the 1970s–1980s, after which it has stabilised at varying levels across countries (Piketty, 2019).<sup>28</sup> Similarly, South Korea, which experienced a period of economic growth to HIC status, had tax revenues below 15% in the 1970s, and expanded to its current level of almost 30% over 40–50 years (Miller and Long, 2017).

27 Domestic revenue is defined here as total revenue excluding grants. We present figures from 1990 onwards, instead of 1980 as the previous section did, due to data availability constraints in social spending series.

28 Around 30% in the US, 40% in the UK and 45%–55% in Germany, France and Sweden.

**Figure 4** Average domestic revenue as a percentage of GDP by country income group, 1990–2018

Note: ‘Total Revenues exc. grants’ includes total government revenue including taxes (resource and non-resource), non-tax revenue (resource or otherwise), and social contributions (SC) but excluding grants (yellow bar). ‘Total non-resource taxes inc. SC’ includes tax revenues from non-resource sources and SC (purple bars). For the countries for which data is not available for 2018, values for 2017 are used. Data for SSC is referred to as social contributions SC in the GRD dataset.

Source: Authors’ own elaboration using UNU-WIDER GRD (2020).

**As observed for overall tax collections, revenues from social security contributions (SSCs)<sup>29</sup> appear to be positively correlated with income across countries.**

In addition to standard tax revenues, almost all countries have some form of contributory national

social insurance scheme, collected alongside employment income taxes.<sup>30</sup> It is worth noting that there is a wide spectrum of how countries treat SSCs. In some cases, these can appear akin to employment income taxes, where revenues can be used to fund a range of services, as in the UK.

<sup>29</sup> Social security contributions are different to other taxes in many countries in that they are typically earmarked for specific areas of public spending, like the health system, or used to pay contributory employment benefits including pensions, levied on employment income. Data coverage of SSCs suffers from missing data and inconsistencies in reporting across countries.

<sup>30</sup> According to the Tax Introduction Database (European University Institute, 2019), 191 countries have introduced a social security contribution scheme at some point.



In other cases, contributions are treated more like private savings or investments administered by pension funds, as in Chile and Uganda, to which governments have no access and hence no mandate to use them to redistribute income. Sometimes private funds can be nationalised at a later stage, in effect becoming government revenues, as was the case in Argentina in the late 2000s. Trends indicate an expansion in revenue collections from SSCs since 1990 in all country income groups except LICs. Based on available estimates, the level of SSCs collected<sup>31</sup> in LICs is, on average, negligible compared to HICs (up to 8% of GDP in 2018). It is important to note, however, that SSC data for LICs may have significant gaps,<sup>32</sup> making any consistent analysis of the effect of income tax and social contributions on inequality challenging.

**The broad trends observed between country income groups on average mask significant variation in tax-to-GDP ratios across regions within country income groups.** For example, LICs in South Asia on average raised 21% of GDP in total tax revenues in 2018 compared to 12% in LICs in SSA.

**There has been broad harmonisation in tax structures across countries over time.**

Most countries have adopted a standard tax structure based on progressive personal income tax (PIT), mostly based on employment income, corporate income tax (CIT) and broad-based taxes on the consumption of goods and services (GST), with the latter accounting for half or more of total tax revenues across all countries on average

(Figure 5). These three instruments together account for between 80% and 90% of tax revenue across all countries on average.

**Progressive direct taxes play a smaller, albeit increasing, role in lower-income countries, indicating more limited fiscal capacity for redistribution through taxes.**

HICs collected 29% of tax revenues from PIT on average and 5% from taxes on property in 2018. This compares to 18% and 0.5%, respectively, in LICs. The importance of CIT has grown particularly in LICs since 1990, accounting for 17% of tax revenues in 2018 compared to 11% in 1990 (Figure 5). Taxes on the transfer of wealth are also more common in HICs than in other countries. OECD (2021) reports that 24 out of 38 countries have some form of inheritance tax, although they typically raise relatively little tax revenue. Taxes on the stock of wealth have been declining globally, and the few countries that currently have a wealth tax collect a small amount of revenue from it.<sup>33</sup> However, the possibility of its reintroduction, either as a permanent tax or a one-off wealth tax, has been recently supported by leading experts (e.g. Piketty, 2013; Atkinson, 2015; Advani et al., 2021a) and a wide range of public advocates in the context of increasing wealth concentration across all countries.

**Trade taxes are more important revenue sources in non-HICs than in HICs, though currently accounting for less revenue than PIT in all income groups.**

Figure 5 shows a higher, but declining, reliance on trade taxes in LICs (13% of tax revenues), LMICs (15%) and

31 Indicated by the difference between the purple and green bars in Figure 4.

32 This is because SSC revenues are generally not reported in central government accounts, on which cross-country revenue datasets are based.

33 According to Pineda et al. (2021), three countries in the OECD (Spain, Switzerland and Norway) and three countries in Latin America (Argentina, Colombia and Uruguay) currently have a wealth tax. Revenue collections amounted to 1.8% and 0.25% of total revenues, respectively, in each group of countries.

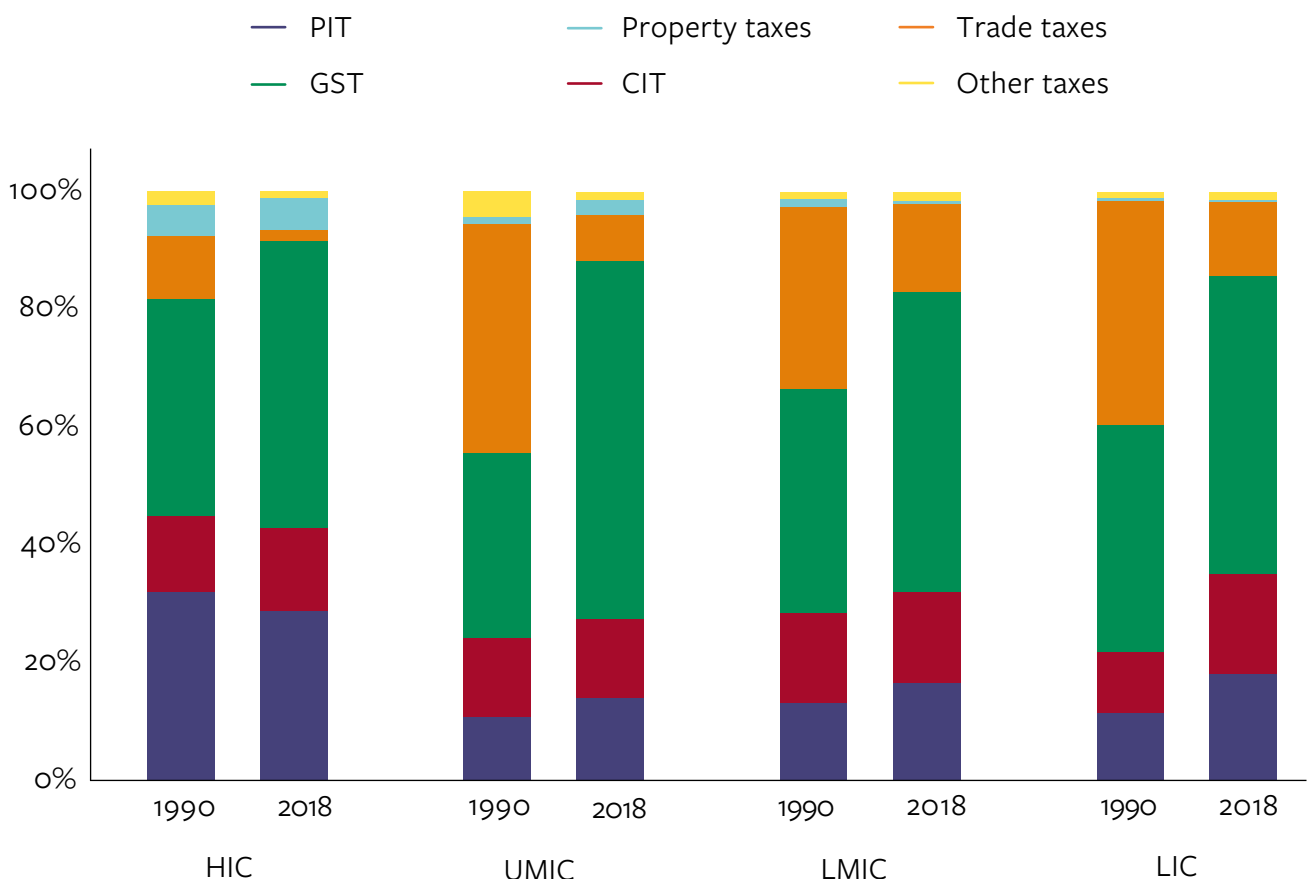
UMICs (8%) compared to HICs (2%) in 2018. Revenues from trade taxes have been partly replaced by the expansion of GST, which grew significantly in all country groups. The greatest expansion in GST was in UMICs, where it accounted for almost two-thirds of total tax revenues in 2018, whereas in the other income groups it accounted for half of tax revenues in 2018.

**not fully explain differences in inequality.**

For example, among UMICs, South Africa raised 35% from PIT in 2018 and 40% from GST, yet is more unequal than China, which raised 8% of tax revenues from PIT and 60% from GST. Among LMICs, Kenya, Tunisia and Sri Lanka have similar levels of inequality, but Kenya and Tunisia raise around 25% from PIT (more than the average for LMICs and most African countries),

**Policy choices differ within country income groups, and the share of direct taxation does**

**Figure 5** Domestic tax revenue composition by country income group, 1990–2018



Note: PIT: Personal Income Tax, CIT: Corporate Income Tax, GST: Goods and Services Taxes (includes Value Added taxes and Excise Duties). Only countries with data available on individual tax instruments have been used, resulting in a smaller sample than shown in Figure 4, particularly for non-HICs. Unweighted averages across countries for each income group.

Source: Authors’ own elaboration using UNU-WIDER GRD (2020).

less than 10% from trade taxes and 50% or less from GST, whereas Sri Lanka raises less than 4% from PIT, 20% from trade taxes and over 60% from GST. Tunisia has a tax composition similar to that of OECD countries.<sup>34</sup>

#### 4.1.1 Why do LICs and LMICs raise less tax revenue as a share of national income than higher-income countries?

**The economic structure of lower-income countries is a major factor explaining the low levels of tax receipts.** Besley and Persson (2014) and Piketty (2019) note that these countries today are not very different to HICs a century ago in terms of economic structure and the structure of taxation. From this perspective, fostering economic development would be more effective for achieving higher levels of taxation and revenues. Lower-income countries typically feature a large agriculture sector, low levels of industrialisation and high levels of informality in labour and product markets (Besley and Persson, 2014).<sup>35</sup> This in turn affects the relative importance of different tax instruments and their redistribution outcomes.

**The relatively large size of the informal sector in lower-income countries is a major limiting factor in the expansion of the PIT base, which is collected from a very narrow segment of the working population** (Moore et al., 2018).

While there has been some expansion in the share of revenue collected from personal income taxes in lower-income countries, overall levels

as a share of GDP remain relatively low. PIT has been described as ‘essentially a tax on employees’ (Jensen, 2022) who are formally employed. This limits the ability of lower-income countries to effectively redistribute via PIT, but it is expected that, as countries develop, the tax base will expand.

**Policy choices play an important role at any given level of development.** As discussed in Section 2, different attitudes towards the role of the state and the social contract affect the level of acceptance of higher taxation to provide public services and social protection. As LICs and LMICs grow and develop, tax collection should automatically expand, but further gains can be made through choices to invest in tax reforms, both in policy design and administration. Weak compliance is affected by low tax administration capacity and lack of trust in government to spend effectively, which can be compounded by a narrowing of the tax base due to exemptions granted to firms, sectors and types of expenditures and activities with debatable economic rationale (Besley and Persson, 2014; Moore et al., 2018). Political control by wealthy elites is widespread in many countries, leading to policies that benefit the wealthier segments of the population and reducing the appetite for higher levels of taxation and the desire for progressive taxation and social spending (Besley and Persson, 2014).

34 See OCED (2021b) for a comparison of Tunisia’s tax composition to other African countries and other regions; see OECD (2021c) for a similar comparison for Kenya.

35 Medina and Schneider (2018) estimate that informality was around 32% across 158 countries over 1991 to 2015, with the highest figures of above 60% for Georgia, Bolivia and Zimbabwe. In the context of tax, informality is relevant if it affects the potential for individuals to alter behaviour to avoid or evade tax (see, for example, Abramovsky et al., 2013).

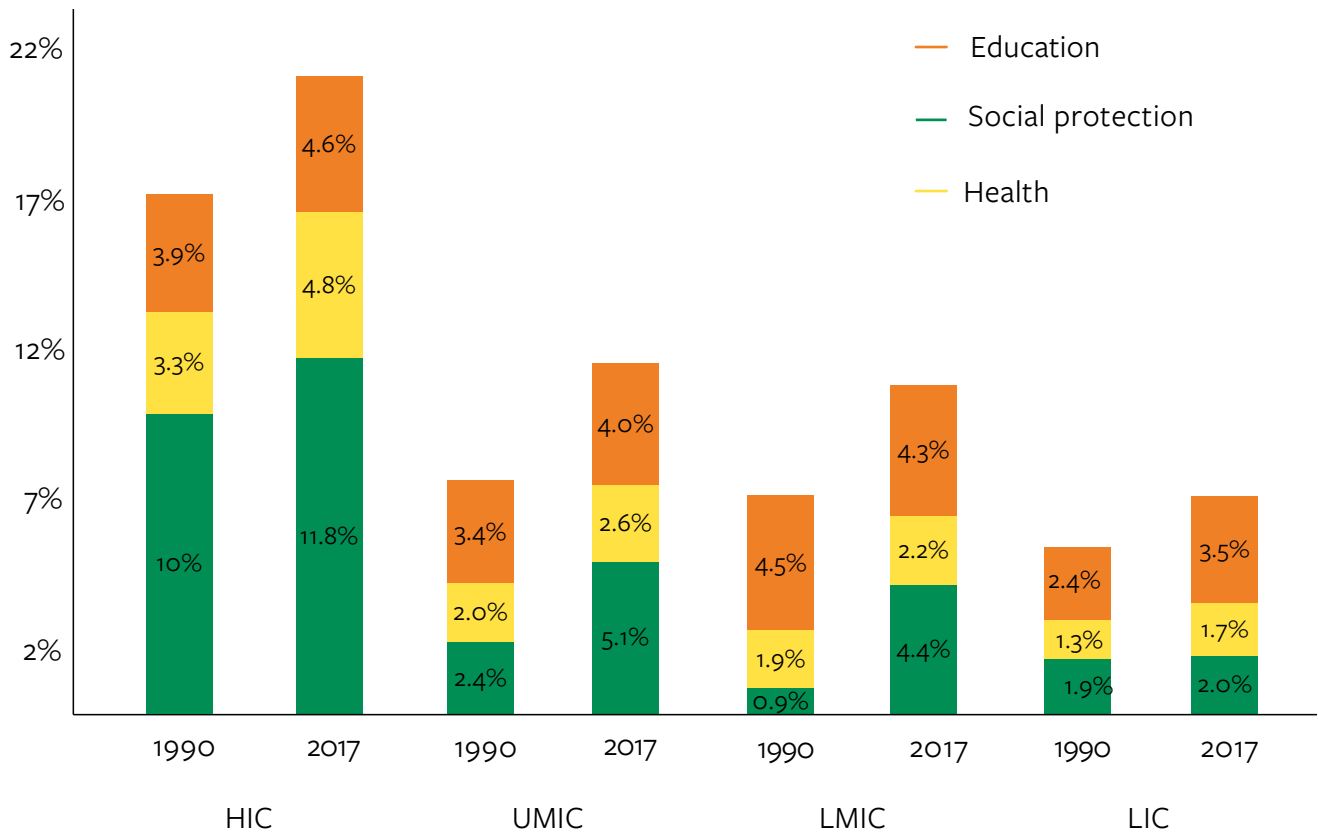
## 4.2 Patterns of public spending on social sectors across countries

**Social spending as a share of GDP has been increasing across all country income groups on average over the last three decades, growing faster in lower- and middle-income countries.** Figure 6 shows that social spending increased as a share of GDP across all income groups between 1990 and 2017. UMICs and LMICs showed the highest growth, expanding their social

spending as a share of GDP by 50%, (from 7.8% to 11.6% and 7.3% to 10.9%, respectively). The faster growth in social spending as a percentage of GDP across non-HICs has led to a degree of ‘catch-up’ between country income groups on average between 1990 and 2017.

**Lower- and middle-income countries still spend less on social sectors than richer countries (both as a share of national income and of total public expenditure).**

**Figure 6** Level and composition of social spending across income groups of countries, latest available estimates, 1990– 2017 (% of GDP)



Note: Data points are based on averages of individual country data (last available) with outliers removed (e.g. Zimbabwe). The sample size in each country group is as follows: HIC (50 countries), UMIC (42 countries), LMIC (36 countries), LIC (14 countries).

Source: IFPRI Statistics on Public Expenditures for Economic Development (SPEED) 2020.

As with revenue trends, countries' share of national income allocated to social spending, and hence their capacity to influence income distribution, increases with national income, on average. HICs spend 21% on average, followed by LMICs and UMICs at 11.6% and 10.9% respectively, and then LICs at 7.3% of GDP (Figure 6). In 2017, HICs spent over half of their total public budget on social sectors, whilst UMICs spent just short of 40%, LMICs just over a third and LICs less than a third.<sup>36</sup>

**Within social spending, HICs tend to prioritise social protection whereas LICs spend relatively more on health and education.** HICs allocate the largest share of social spending to social protection (11.8% of GDP on average in 2017). This trend has remained largely unchanged over the last 30 years, with the exception of a marginal increase in the share allocated to health, consistent with increasing demands due to demographic changes. LICs and MICs allocate relatively more to education and health. While the share of GDP spent on social protection in LICs has barely changed in preceding decades (from 1.9% in 1990 to 2% in 2017), the increase in average total social spending has been allocated mostly to education.

**Middle-income countries have significantly increased the allocation of social spending to social protection since 1990.** UMICs have more than doubled social protection spending (from 2.4% to 5.1%) and LMICs have seen social protection spending, on average, quadruple since 1990 (from 0.9% to 4.4%), with both groups now allocating around 40% of total social spending to social protection.

**As with the inequality and revenue trends discussed in previous sections, there is wide variation in social protection and broader social spending across regions and across countries within country income groups.** For example, South Asian and SSA countries spent around 2% as a share of GDP on social protection and 6% and 8%, respectively, on total social spending (social protection, health and education spending) in 2017. Europe and Central Asia spend the most on social protection, around 14% of GDP, and a total of 25% on social sectors. Within LMICs, Bolivia and Nicaragua spent around 4% of GDP on social protection and 8% and 10% on social spending, respectively, in 2017. Many countries in SSA classified as LMICs spend less than 1% on social protection, including Cameroon, Congo, Kenya, Nigeria and Zambia, with some variation in spending on education and health, but usually totalling less than 10% as a share of GDP in terms of total social spending.

**While social spending overall has increased across country income groups, the quality of social spending varies significantly, since richer countries can afford to provide greater coverage and adequacy.** Gaps in the quality of social spending can greatly affect the impact of such spending on inequality of income and opportunity. This can be a significant challenge in all countries, but particularly in those with weak state capacity. Focusing on results, particularly in health and education, rather than inputs (value of public spending) alone is crucial for reducing inequalities and fostering inclusive growth (Filmer et al., 2021). Recent estimates indicate that approximately 53% of the world's population is covered by at least one form of social protection benefit, ranging from almost 90% in HICs to just

<sup>36</sup> Source: IFPRI Statistics on Public Expenditures for Economic Development (SPEED) 2020.

13% in LICs.<sup>37</sup> However, the adequacy and targeting of social protection schemes will impact the distributional outcomes achieved.

**In HICs there is high coverage across a range of demographic groups, whereas non-HICs provide mainly for retirement.** Between 80% and 90% of each of these groups receive a benefit in HICs: children/households with children, persons above retirement age, people with disabilities and mothers with new-borns. In non-HICs the group with highest coverage is persons above retirement age. In UMICs this reaches 65%, in LMICs 41% and in LICs 15%. Gaps in general social safety nets were starkly revealed in LICs and LMICs during the Covid-19 pandemic, during which existing social insurance systems excluded those most in need. Bastagli and Lowe (2021) report that the focus of emergency response was on cash transfers, which reflects a broader policy shift towards direct income support and away from investment in public service delivery and in-kind transfers. While some LICs and LMICs were able to step up social assistance, especially those with external assistance, others were unable to provide adequate support where it was most needed.

**In addition to social spending, countries provide social protection indirectly. These include subsidies to the production and consumption of, for example, fossil fuels and water and sanitation services, or via the tax system through reduced rates. These subsidies can be higher in value than the share spent on social protection in some countries.** Subsidies provided through the tax system (or

‘tax expenditure’), such as reduced VAT or sales tax on basic goods and services, or tax credits on earned income, aim to support poorer households to access goods and services, labour markets and education. Since these subsidies are often less transparent, estimates of their value are patchy and vary widely, averaging 0.7% of GDP for the 33 countries available in a recent cross-country study (Haldenwang et al., 2021). Andres et al. (2019) estimate that around half a percent of GDP is spent on subsidies to water and sanitation globally (excluding China and India), and this rises to 1.5–2% of GDP in lower- and middle-income countries. Parry et al. (2021) estimate that explicit subsidies to fossil fuels took up 1.5% of GDP on average across 190 countries in 2019, varying significantly across countries, country income groups and geographical regions.<sup>38</sup> HICs spent almost 1% of GDP on fossil fuel subsidies on average, compared to 2.7% in UMICs, 1.5% in LMICs and 0.6% in LICs. Taken together with water and sanitation, subsidies exceed the 2% on average spent in LICs on social protection.

#### 4.2.1 Why do LICs and LMICs spend less on social protection, health and education as a share of national income?

**While policy choices and social preferences over the role of the state play a part in determining the scale of social spending, fiscal space is a clear limiting factor, on average, across country income groups.** As discussed in Section 2, countries that collect more domestic revenue tend to spend more on social

<sup>37</sup> These estimates on social spending sectors as a share of GDP are based on last available data between 2000 and 2019 for each country from the International Labour Organization (ILO) World Social Protection Database.

<sup>38</sup> Explicit subsidies are defined by the authors as the subsidies resulting from undercharging for supply costs. They also estimate implicit subsidies to fossil fuel, which relate to the environmental costs (including the negative impact on air pollution and congestion) and foregone revenue from consumption taxes.

sectors. We showed in Section 4.1 that LICs and LMICs collect less domestic revenue on average, limiting the fiscal space for social spending. Further constraining factors include the relatively high share of revenue spent on servicing existing debt, limited access to credit markets at low interest rates and inefficiency of public spending and service delivery.

**According to World Bank data, in 2019 6–12% of LICs’ revenue was spent on debt repayment and up to 14% in UMICs, compared to 3–7% in HICs.** In SSA, the increasing reliance on private non-concessional debt has driven debt-servicing costs even higher (Prinz et al., 2021). Almost half of all LICs were experiencing difficulties in servicing their public debts (in ‘debt distress’, or at a ‘high risk’ of distress) in 2019 (more than double the number in 2013) (IMF, 2021b).

**The Covid-19 pandemic has increased the strains on fiscal space for social spending in lower-income countries.** All financing options have been negatively affected (Prinz et al., 2021; IMF, 2021b). This meant that lower-income countries had fewer resources to mitigate the negative effects of the crisis, including on income inequality and poverty, relative to HICs. These countries are more likely to need fiscal adjustments in future, reducing further the fiscal space to implement social spending policies beyond the pandemic.

**While expanding fiscal space is a prerequisite to address income inequality and reduce poverty through the fiscal system, in lower-income countries the variation in LIC outcomes suggests there remains scope for improvement even with limited resources.** With limited resources, one would expect a smaller impact in countries with lower revenues.

Nonetheless, the redistributive impact of fiscal policy depends not only on budget size, but also on the nature and design of the policy instruments implemented, in terms of both taxes and social spending, underlying population characteristics, the quality of public spending and other context-specific factors. Evidence on the redistributive impact of individual policy instruments and their design is discussed further in Section 5.



## 5 Evidence of fiscal redistribution

**This section provides a comprehensive survey of the available evidence on the combined impact of taxes and social spending on income inequality and poverty as well as studies of individual fiscal instruments across countries with different income levels.** In the last decade, there has been a growing literature documenting the impact of taxes and social spending on income inequality and poverty in non-HICs. This has been facilitated by improved data availability, and fostered by renewed interest in the topic among researchers, policy-makers and the wider public. It is important to note that this is not a systematic literature review of all the new studies produced in the last three decades on this topic. Furthermore, as highlighted in Bastagli (2015), there is limited scope for generalisation and broad conclusions on the impact of specific categories of taxes and social spending since policy contexts (such as design and implementation approaches) vary significantly across countries. However, there are common lessons and helpful principles that can be drawn from reviewing the evidence.<sup>39</sup>

### 5.1 The distributional impact of taxes and social spending combined

**Across all the countries studied, direct taxes and transfers are equalising (they reduce income inequality).** Figure 7 shows, for each country (at a point in time), the Gini coefficient of market income (horizontal axis) against the Gini

coefficient of disposable income (vertical axis). The 45-degree line shows the point at which fiscal policy has a neutral impact on income distribution, that, is no net effect, since the Gini coefficient calculated using market income (before direct taxes and transfers) is equal to the Gini coefficient of disposable income (after direct taxes and transfers). When the dot of a country is below the 45-degree line, it shows that the estimated impact of direct taxes and transfers is to reduce market income inequality, since the Gini coefficient of disposable income (that is, market income adjusted after direct transfers and taxes) is lower than the Gini coefficient of market income. The further away a country is from the 45-degree line, the greater the redistributive impact of fiscal policy. All countries are below the 45-degree line, showing an equalising effect, although the magnitude of the effect varies significantly across country income groups and across countries. This is consistent with results discussed in Bastagli (2015), IMF (2017) and Lustig (2018), among others.

**The most significant redistribution effect, on average, is found in HICs even though these did not start from the highest level of market income inequality.** In HICs, there was a reduction of 15 percentage points (or a third), from 47% to 32% (Table 2). These figures provide an indication of the potential redistributive impact that direct taxes and (cash) transfers can achieve. Among HICs, direct taxes and transfers achieve a reduction of over 20 percentage points (or over

<sup>39</sup> This section uses different data sources to those in Section 3, as already discussed. This generates discrepancies in the average level of Gini coefficients across income country groups and their ranking between the two sections. This is driven by two main factors. First, in this section the starting point is market income rather than pre-tax income, which removes the effect of pension and unemployment transfers. Second, the sample of countries considered in this section is smaller.

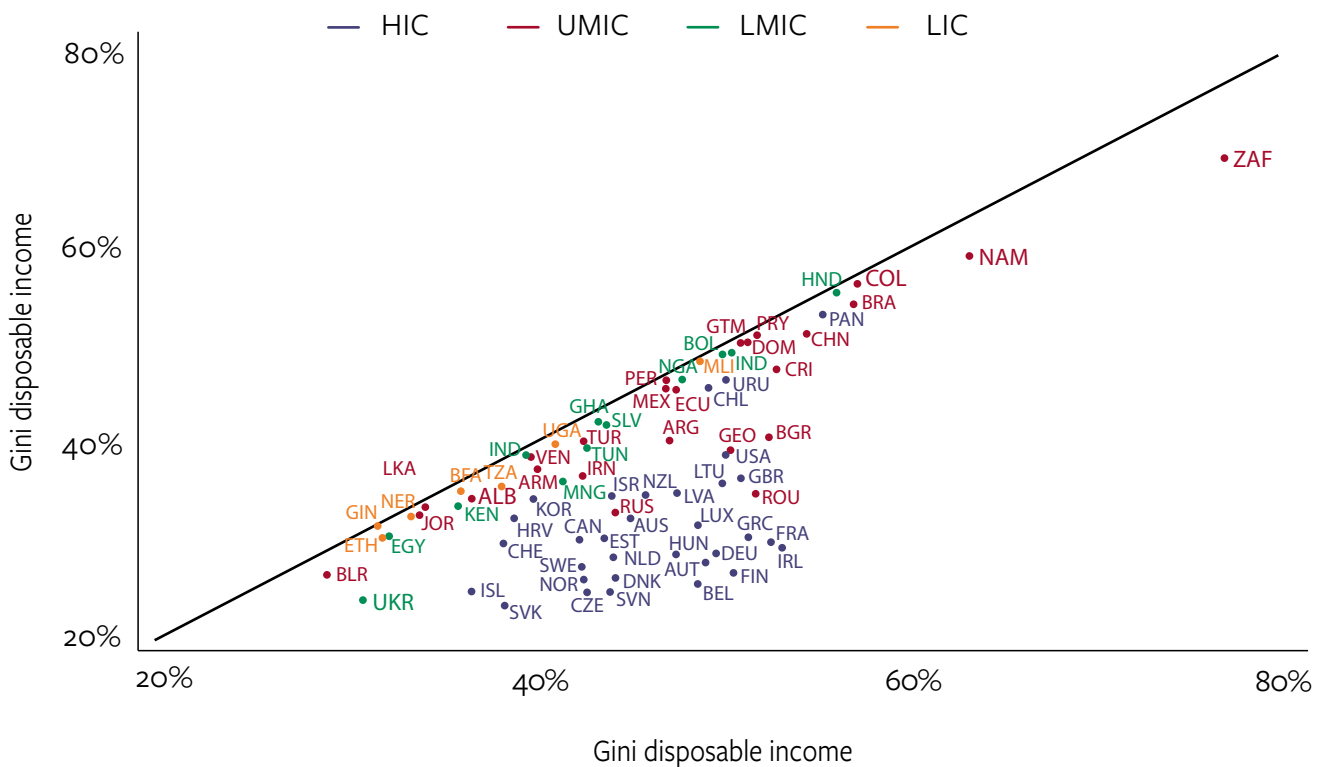


40% reduction) in 10 countries: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, and Slovenia. Causa and Hermansen (2020) show that, for OECD countries, most of the redistribution is achieved by cash transfers for working-age individuals; personal income taxes play a more important role in countries achieving less redistribution, including Japan, South Korea, Israel and the US. It is important to note that in this section we use, as a starting point, market income, which removes the effects of pension and unemployment contributions and transfers. This contrasts with Section 3, in which we showed trends in pre-tax income. Using pre-tax income measures shows

that inequality was lower in HICs than in other income groups. However, as shown in Table 2, using market income measures results in LMICs and LICs in the sample having a lower market income Gini on average than HICs, pointing to the important equalising role of pensions and unemployment benefits in richer countries. Most UMICs in the sample start from the highest levels of market income inequality.

**Non-HICs in the sample achieve a more modest reduction in Gini coefficients of less than 10% on average, whilst also showing significant variation within groups across countries.**

**Figure 7** Redistributive impact of income taxes and direct cash transfers



Note: 2018 or latest available year. Data labels use the ISO country codes from the OECD. 82 countries included: 37 HICs, 25 UMICs, 13 LMICs, 7 LICs.

Sources: Commitment to Equity Institute Data Center on Fiscal Redistribution, 2019; OECD, Income Distribution Database.

The impact declines with income across countries, with average inequality reductions for UMICs, LMICs and LICs of 8%, 6% and 5%, respectively (Table 2). Having said this, the data on redistribution from non-HICs is patchier, so observed differences should be treated with caution. Within each country income group, there is significant variation. Four countries show a reduction of 10% or above (Argentina, Costa Rica, Iran and South Africa). In these eight countries, in 2018, the ratio of tax to GDP (including social insurance contributions) was around 30% or above (except for Costa Rica, which was lower at 22%).<sup>40</sup> All in all, this suggests that policy design and implementation can have a substantial influence on the role of direct taxes and social spending in income inequality when the size of the state is larger.

**Indirect taxes and subsidies (net indirect taxes, which includes price subsidies) have on average no net impact on income inequality across all country income groups.**

This result is calculated by comparing ‘disposable income’ Gini coefficients with ‘consumable income’ Gini coefficients (after indirect taxes and subsidies), shown in Table 3. This analysis is only available for 47 countries included in studies by the Commitment to Equity (CEQ) Institute.<sup>41</sup>

**The equalising effect of in-kind transfers, in the form of education and health services, is substantial across most income groups except LICs.**

The same CEQ studies show that in-kind transfers result in lower ‘final income’ Gini coefficients relative to ‘consumable income’ Gini coefficients.

**Table 2** Redistributive impact of income taxes and direct transfers (2018 or latest available), country income groups averages

Country income group	Market income Gini coefficient	Disposable income Gini coefficient	Percentage points (decrease)	Proportional change (decrease)
HICs	47%	32%	15	32%
UMICs	48%	44%	4	8%
LMICs	43%	41%	2	6%
LICs	38%	36%	1	3%

Note: 2018 or latest available year. Data labels in figure use the ISO country codes from the Organisation for Economic Co-operation and Development (OECD). 82 countries included: 37 HICs, 25 UMICs, 13 LMICs, 7 LICs. Sources: Commitment to Equity Institute Data Center on Fiscal Redistribution, 2019;<sup>42</sup> OECD, Income Distribution Database.

40 UNU-WIDER Government Revenue Dataset (2020).

41 The Commitment to Equity Institute (see Lustig, 2018), is a pioneer initiative that estimates the incidence of fiscal policy, working with a range of partners including the World Bank. CEQ analysis currently covers 47 countries, and has modelled direct and indirect taxes, transfers and in-kind transfers in education and health sectors. Building on the CEQ fiscal incidence methodology, the World Bank has developed a customisable microsimulation tool for over 20 LICs and MICs to simulate the impact of changes in fiscal policy (Gao and Inchauste, 2020).

42 Idem fn. 39.

**Table 3** Redistributive impact of fiscal systems on income (2016 or latest available), country income group averages

Country income group	HICs	UMICs	LMICs	LICs
Market income Gini coefficient (1)	47%	48%	43%	38%
Disposable income Gini coefficient (2) [(1) + direct taxes and cash transfers]	42%	45%	40%	36%
Consumable income Gini coefficient (3) [(2) + indirect taxes and subsidies]	42%	45%	40%	36%
Final income Gini coefficient (4) [(3) + in-kind transfers: education and health]	37%	40%	38%	35%
Overall proportional change (5) $[\{(1)-(4)/(1)\} * 100]$	22%	17%	12%	8%

Note: 2016 or latest available year. Data labels use the ISO country codes from the OECD. 47 countries included: 6 HICs, 21 UMICs, 12 LMICs, 7 LICs.

Source: Commitment to Equity Institute Data Center on Fiscal Redistribution, 2019.<sup>43</sup>

They reduce the latter further by 5 percentage points (12%), 5 percentage points (11%), 2 percentage points (5%) and 1 percentage point (3%) in HICs, UMICs, LMICs and LICs respectively, as shown in Table 3. It is worth noting that in-kind transfers are valued using the cost of inputs or production costs, which may not necessarily reflect their actual value, driven by their quality and the value consumers get from these services.

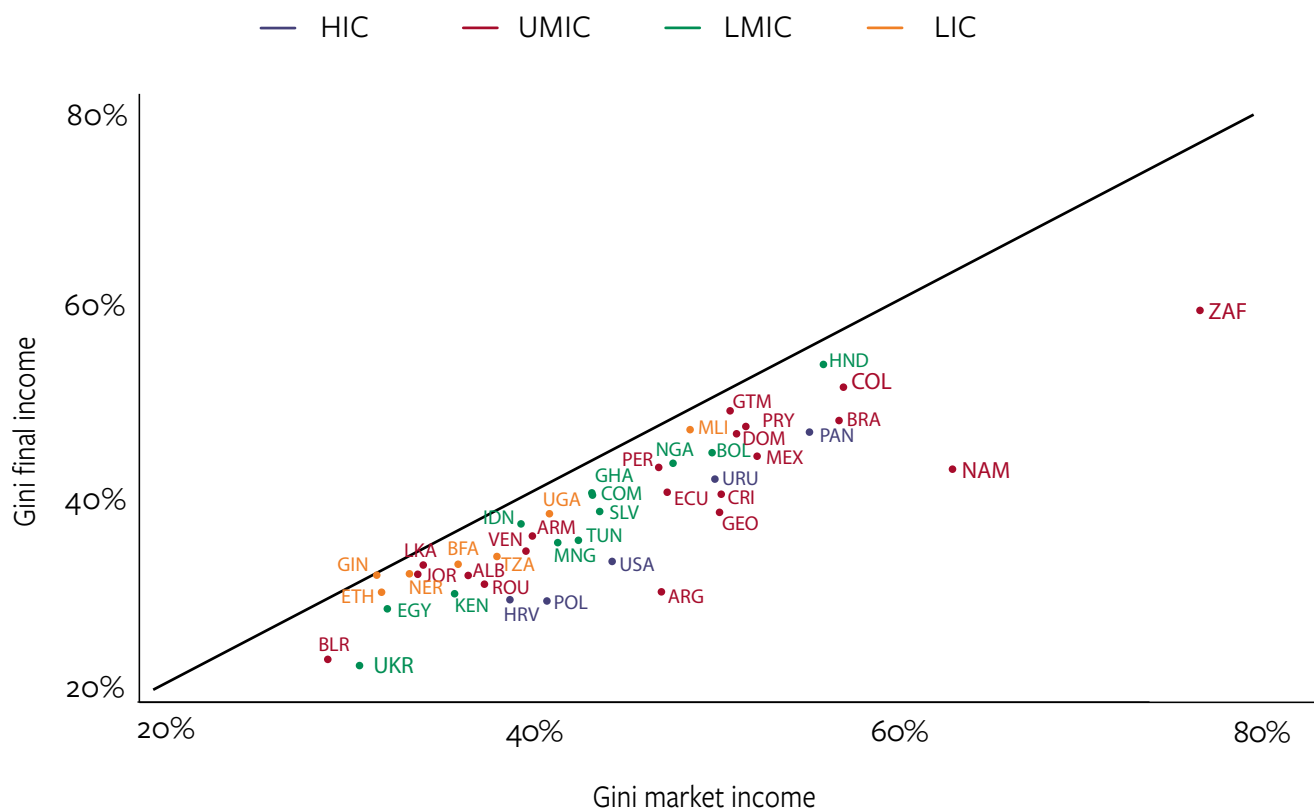
**Overall, the average proportional change in Gini coefficients due to all the fiscal instruments modelled (direct taxes and cash transfers, indirect taxes and subsidies and in-kind transfers) is higher the higher the income group.** Table 3 shows a reduction of 22% for HICs, 17% for UMICs, 12% for LMICs and 8% for LICs.

**Most of the redistribution is done by direct taxes and cash transfers and**

**in-kind transfers.** Furthermore, most of the redistribution is done by social spending rather than taxes, that is, by transfers (in cash and in-kind). Joumard et al. (2012) show that, in a group of OECD countries, most redistribution is done by cash transfers, rather than direct taxes; they report that three-quarters of the reduction in inequality achieved by direct tax and cash transfers is achieved by the latter.

**The pattern observed across country income groups masks high levels of heterogeneity across countries in initial market income inequality, and in the impact of fiscal policies in reducing it.** Figure 8 shows that South Africa is the most unequal country, with a final income Gini of 60%, even after achieving over 20% reduction through fiscal policies. South Africa is followed by Honduras, Colombia, Guatemala and Brazil, with final income Gini coefficients of around 50%. Honduras achieves a 5% decrease, and Brazil 16%.

43 Idem fn. 39.

**Figure 8** Redistributive impact of fiscal systems (2016 or latest available)

Note: 2016 or latest available year. Data labels in figure use the ISO country codes from the Organisation for Economic Co-operation and Development (OECD). 48 countries included: 6 HICs, 21 UMICs, 12 LMICs, 7 LICs. Source: Commitment to Equity Institute Data Center on Fiscal Redistribution, 2019.<sup>44</sup>

Belarus and Ukraine display the lowest levels of final income inequality, with final income Gini coefficients of just over 20%, due to both initial lower levels of market income inequality (around 30% Gini coefficients) and their fiscal policies, which reduce it further by a fifth and a third, respectively. Argentina is estimated to achieve the largest proportional decrease in inequality due to fiscal policies, almost a 40% decrease from a starting point of 47% (close to the average market income Gini coefficient in the sample).

**While these results concern income inequality, the impact on absolute poverty and income inequality need not go in the same direction.** Lustig (2018) discusses the impact of the ‘cash portion’ of the fiscal system (direct and indirect taxes and social spending) on poverty headcount ratios. In 21 of the 29 countries included in her study,<sup>45</sup> direct taxes and social spending decrease poverty, although this is partially offset by the effect of indirect taxes and subsidies. However, there are cases where poverty

44 Idem fn. 39.

45 Using the World Bank classification at the time Lustig (2018) was written, the group of countries included three low-income countries: Ethiopia, Tanzania, and Uganda; 10 lower-middle-income countries (Armenia, Bolivia, El Salvador, Ghana, Guatemala, Honduras, Indonesia, Nicaragua, Sri Lanka and Tunisia); 14 upper-middle-income countries (Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Georgia, Iran, Jordan, Mexico, Peru, Russia, South Africa and Venezuela); and two high-income countries (Chile and Uruguay).

is increased due to the ‘cash’ portion of fiscal policy, while income inequality decreases.<sup>46</sup> The drivers of this result are unclear.

**In several countries, net payers to the fiscal system start in the extreme poor or poor income groups.**

Even if the overall poverty headcount ratio decreases, in some instances households are impoverished by the fiscal system, i.e. the fiscal system makes a portion of poor households poorer, or a portion of non-poor households are pushed below the poverty line. This fiscal impoverishment effect is particularly sizeable in LICs (Lustig, 2018).<sup>47</sup> Often this is the result of bad policy design, as discussed, for example, in McNabb and Granger (2022), who show that employment personal income tax kicks in at very low income levels, sometimes below absolute poverty lines, in several SSA countries. The lack of direct cash transfers targeted to the poor and lack of access to the education and health system in lower-income countries contributes to this phenomenon.

**Evidence shows that total transfers in-kind through education and health spending are generally pro-poor (i.e. per capita government spending on the transfer tends to fall with market income)**

(Lustig, 2018). This result does not hold across all types of public spending in education and health. For example, tertiary education is often not pro-poor. This overall pro-poorness result could be the

consequence of the middle class and rich opting out of the state-funded system and choosing private sector providers (Bastagli, 2015).

5.1.1 Changes in fiscal policy impacts over time

**A few recent studies have examined changes over time in the redistributive role of fiscal policy. The emerging evidence is mixed across countries and policy instruments.**

Answering this question over time demands significant amounts of detailed data, which is difficult to find in lower-income countries, hence the sample of studies is biased towards HICs.

**Recent evidence from HICs shows that the impact of fiscal policy on income inequality has dampened in recent decades.**

This is partly because of increasing pre-tax inequality and partly because of decreasing progressivity of personal income tax, although changes in transfer schemes play a role in some countries. In Europe the tax and benefit system is only partially addressing the increase in pre-tax inequality, resulting in higher levels of within-country post-fiscal income inequality in 2019, relative to 1980 (Morgan and Neef, 2020). Similarly, the US tax system has become less progressive over time according to some measures. Tax rate gaps between the top 1% and bottom 50% have been increasingly compressed. Transfers, other than unemployment and pensions, are now being targeted essentially to the middle class, leaving the bottom 50% with little support to manage the collapse in their pre-

46 Figure 10-10 of Chapter 10 in Lustig (2018) shows that this is the case for Ethiopia, Ghana, Guatemala, Nicaragua, Uganda and Tanzania, but only when pensions are considered as deferred income rather than cash transfers.

47 See Table 10-1 of Chapter 10 in Lustig (2018).

tax incomes (Alvaredo et al., 2018). A similar trend is observed in a study of OECD countries, which shows a decrease in redistribution through taxes and cash transfers,<sup>48</sup> explained mostly by a weaker role for insurance cash transfers and, to a lesser extent, a reduction in the role of progressive personal income taxes (Causa and Hermansen, 2020).

**In non-HICs in Latin America, income redistribution through fiscal policy has been amplified over the past two decades.** For instance, cash transfers targeted to the poor and in-kind education transfers played a key role in improving the progressivity of fiscal policy and reducing post-fiscal income inequality (Lustig, 2020). Additionally, in many Latin American countries the increase in the relative reliance on progressive personal income taxes contributed to the increasing progressivity of the fiscal system and the observed decline in post-fiscal income inequality (Martorano, 2018).

**Emerging evidence shows increases in poverty and income inequality due to the Covid-19 pandemic.** For example, in Brazil, Argentina, Colombia and Mexico (Blofield et al., 2021), the greatest negative impact of the pandemic appeared to be on households in the middle of the income distribution, since non-contributory transfers (even prior to the pandemic) provided protection to those with the lowest incomes. Several schemes introduced during the crisis have since been scaled back. Individuals and households with higher incomes had also been protected by receipt of pensions or public sector employment income. In SSA,

for instance, there was a limited expansion in inequality since households across the income spectrum were equally affected.

## 5.2 Analysis of individual fiscal instruments

**While it is important to assess the overall impact of the system on income distribution and poverty, for policy design lessons it is also useful to look at the individual impact of policy instruments on distribution within the system.** Regarding tax instruments, it is important to understand their distributional impact in the context of existing trade-offs between equity and efficiency and alternative instruments. Design details concerning both tax rates and tax bases (the definition of what is taxed) affect how best to balance these trade-offs.

### 5.2.1 Direct taxes

**Direct taxes are taxes imposed on individuals or organisations. They are paid directly to the entity that imposes them, and are not transferrable.** Direct taxes can be divided into two broad categories. Taxes levied on individuals encompass personal income tax (levied on different sources of income, including employment and capital), national insurance contributions, property taxes, capital gains taxes, inheritance tax and taxes on assets. These are typically residence-based (levied on individuals that are resident in a specific country). Taxes levied on organisations include corporate income tax (typically levied on the income of both domestic and foreign investors based on their

<sup>48</sup> The authors define redistribution as the relative reduction in market income inequality through personal income taxes, employees' social security contributions and cash transfers. They use household-level surveys for their analysis for the working-age population.

source of income). Direct taxes affect the trends and patterns observed in disposable income, since disposable income is defined as market income adjusted for direct taxes and (cash) transfers.

### 5.2.1.1 Personal Income Taxes

**In practice, personal income taxes are generally progressive and equalising, and most countries operate a progressive PIT at least on employment income, taxing individuals in proportion to their ability to pay.**<sup>49</sup>

Duncan and Sabirianova Peter (2016) provide cross-country evidence covering the period 1981–2005 for a panel of 151 countries showing that the progressive structure of personal income tax is equalising.<sup>50</sup> In a study of four SSA countries,<sup>51</sup> Gemmel and Morrissey (2005) also find that personal income tax is progressive. O’Donoghue et al. (2004) come to the same conclusion for a sample of 12 EU countries, finding that PIT is more equalising than social security contributions. Causa and Hermasen (2020) find that personal income tax plays a relatively large role in reducing income inequality compared to cash transfers in countries that achieve comparatively little redistribution overall through direct tax and cash transfers, such as Japan, South Korea, Israel and the US.

**PIT is less equalising in lower- and middle-income countries due to the limited coverage of the tax system resulting from the high degree of employment informality, low compliance and associated challenges in these contexts.**<sup>52</sup> Inchauste and Lustig (2017) show that direct taxes are generally progressive and equalising in eight LICs and LMICs,<sup>53</sup> though the impact on reducing market income inequality, measured by the Gini coefficient, is modest and varies across countries, from almost zero to nearly 5 percentage points. It is only sizeable in Ethiopia (an LIC) and South Africa (a UMIC); in the rest, the equalising impact of PIT is very small. Similarly, Rossignolo (2017) shows a reduction of about 5 percentage points in the Gini in Argentina (a UMIC).

**The level of progressivity and the actual impact on income distribution and poverty depends on further elements of policy design.** This includes the tax base, tax rate structure (number and location of tax brackets and level of marginal rates), exemptions and allowances affecting the tax base, the presence and design of tax credits,<sup>54</sup> compliance and administration. The setting of marginal tax rates and thresholds, in theory, balances revenue raising and equity

49 With higher amounts being collected from high-income individuals and marginal tax rates increasing with income.

50 Their main contribution is to show that the equalising impact is larger for income-based Ginis than for consumption-based Ginis, and the gap is larger in contexts with weaker legal institutions.

51 Côte d’Ivoire, Guinea, Madagascar and Tanzania.

52 The potential impact of PIT on distribution is typically correlated with formal employment since employer withholding is often simpler to administer. Jensen (2022) shows that LICs and LMICs are likely to have a higher share of self-employed in lower income deciles relative to employees, reducing the (earned income) tax base.

53 These are Armenia, Ethiopia, Georgia, Indonesia, Jordan, Russia, South Africa and Sri Lanka. See Figure 1.4 of Inchauste and Lustig (2017) for a detailed quantification of the effect of each tax and spending instrument modelled on income inequality across countries.

54 These are usually called earned income tax credits (EITCs), which transfer money to taxpayers on low taxable earned income (more common in HICs). Unintended effects sometimes occur, including on labour supply (de Mooij, 2008) or from benefits captured by employers (Rothstein, 2010). However, recent evidence from Hoynes (2019) shows that, in the US, EITCs target low-income households effectively, reducing poverty while incentivising work and improving the lifelong outcomes of children of these households.



objectives with any effect employment taxes may have on incentives to work (and therefore economic growth), evasion and avoidance.

**The desirable or appropriate level of the top marginal income tax rate is particularly controversial. This is because there is still no conclusive evidence about its negative impact on economic growth, and whether this outweighs the distributional gains.**

Some economists have found that higher tax rates harm innovation and entrepreneurship, and hence economic growth (see, for instance, Akcigit et al., 2022), while others have proposed that the distributional gains of a progressive labour income tax structure outweigh the efficiency losses from disincentivising labour supply (see, for example, Saez, 2001). Piketty et al. (2014) have argued that taxing top incomes at a higher rate will incentivise managers to focus their efforts on productive activities rather than on bargaining to achieve higher net pay. This is consistent with the findings of Gerber et al. (2020), who find that increasing tax progressivity reduces pre-tax income inequality, and that there is no evidence that the progressivity of PIT is associated with lower economic growth.

**Top marginal income tax rates have decreased over time since the 1980s across various countries, affecting the progressivity of the system whilst having no observed impact on economic growth** (IMF, 2017;

Alvaredo et al., 2018; Gerber et al., 2020). IMF (2017) and Gerber et al. (2020) document that the progressivity of the personal tax system declined in the 1980s and 1990s, and has remained stable since then. This coincided with the decline in top marginal tax rates in OECD countries from 62% in 1981 to 35% in 2015. Often, reforms since the 1990s have increased the exemption threshold, shifting the tax burden towards the middle of the

distribution (Gerber et al., 2020). McNabb and Granger (2021) also find decreasing top marginal employment income tax rates in Africa. Klemm et al. (2018) have explored potential rationales for the decreasing trend in top marginal tax rates and have not found any rationale consistent with efficiency considerations, arguing that it must be driven by political factors. According to several economists, the current top marginal rate across many countries is below the optimal growth-maximising level. For example, Diamond and Saez (2011) argue that this should be 73% for the US, whilst Milasi and Waldman (2017) argue that it should be 60% for a group of 18 OECD countries. This suggests that there could be room to increase the top marginal income tax rates.

**In practice, capital ownership concentration among higher-income individuals combined with less progressive taxes on capital income tends to increase income inequality.**

Labour income is usually taxed at higher rates than capital income, as most countries have dual systems that combine a progressive system for earned (employment) income and a flat proportional rate for capital income (profits, dividends, interest, capital gains). Because capital ownership is concentrated among individuals at the top of the income distribution, this structure usually makes the system less progressive. For example, Advani and Summers (2020) show that effective average tax rates (EATRs), i.e. the percentage of annual income individuals pay on taxes: (1) are much lower than headline rates for UK taxpayers with incomes above £100,000; (2) are regressive at high levels of income or remuneration; and (3) vary by up to a factor of five across people with the same remuneration – depending on the source of income. Low EATRs almost exclusively benefit investors and business owners, rather than

employed or self-employed earners.<sup>55</sup> In addition, the base for capital income tax is more difficult to measure, making it easier to avoid taxes.

**Economists have not formed a consensus about whether it is better to tax capital and labour income together using the same progressive schedule, or to tax capital at a lower flat rate.**

The former is the most progressive option. At the same time, it would ensure that: (1) entrepreneurial income is taxed neutrally (self-employed people can otherwise label their income as capital to pay lower taxes); and (2) different types of capital income are taxed uniformly (in particular, capital gains and interest versus dividends), minimising behaviour distortions. However, it is also the most complicated to implement (Abdel-Kader and de Mooij, 2020) and may disincentivise investment and savings more strongly if the tax base is not reformed to minimise these distortions.<sup>56</sup> Closely related to this is the idea that taxing corporate profits (CIT) acts as a backstop to PIT, since individuals may try to avoid paying PIT by concealing their personal income as income from a corporation.

**The design of income tax breaks, which are not well-targeted and benefit the better-off disproportionately, often affects the distributional impact of PIT, rendering it less progressive.** Joumard et al. (2012) show that, in OECD countries, despite personal

income taxes being progressive overall, their progressivity is often dampened by tax breaks for childcare, savings for retirement, health and education expenditure and owner-occupied housing.<sup>57</sup> Redonda and Axelson (2021) find that pension-related tax breaks in South Africa are regressive and unequalising. Evidence from Mexico shows that personal income tax breaks are not well-targeted (Hannan et al., 2020). Forgone tax revenues due to tax breaks (so-called tax expenditures) are often opaque, and their often-regressive redistributive impact has traditionally been overlooked. However, recently they are being placed at the centre of the debate on tax reform to tackle revenue mobilisation in a fair way (see, for instance, Redonda et al., 2021).

**The redistributive impact of personal income taxes is, quite likely, overestimated as many top income earners may have access to aggressive tax planning tools or are more likely to be able to hide their income from tax authorities, resulting in higher rates of avoidance and evasion.**

This argument is elaborated in Alstadsæter et al. (2019) in the context of Scandinavian countries and discussed more generally for other contexts, including lower-income countries. Kangave et al. (2018) show that, in Uganda, only 5% of the directors of the top taxpaying companies were paying PIT around 2015, and only a third of a sample of top lawyers were remitting income tax payments. The authors describe how administrative efforts to

55 Advani and Summers (2020) suggest that the regressivity, the distortion of people's choices about how to work and the revenue losses from taxing varying sources of income at different rates are not unambiguously compensated by benefits in terms of entrepreneurship and investment.

56 This could be achieved by reforming the base by, for example, implementing a cash flow approach where 100% of investments and savings can be deducted up-front and income is taxed when it is received (Mirrlees et al., 2011; Adam and Miller, 2021).

57 See Toder et al. (2016) for an analysis of individual income tax expenditures in the US, and Committee for Economic Development of Australia (CEDA, 2015) for an analysis of tax-free contributions to company pension plans in Australia.

improve the compliance of identified high-net-worth individuals in Uganda generated significant increases in revenue collection from PIT. Joste et al. (2021) find that taxable income elasticities are higher for higher-income taxpayers in Uganda, suggesting they are better able to shift income across tax bases and hide it from the tax authority. Their average estimate of taxable income elasticity for wage earners is larger than existing estimates from HICs. This suggests that tax avoidance may be a larger problem in contexts with low state capacity.

**LIC and LMIC personal income tax systems are generally progressive and equalising overall, but can be poverty-increasing.**

In some countries poor households in the bottom deciles are liable for PIT due to the lack of in-work EITCs and very low or non-existent tax-free allowance thresholds, which can be at or below the poverty line (McNabb and Granger, 2021). This was the case in Ethiopia (Hill et al., 2017), although a reform in 2016 increased the income level of the exemption threshold and of all the income brackets to catch up with inflation (Hirvonen et al., 2018). In Argentina, Rossignolo (2017) shows that taxes imposed on earned income<sup>58</sup> increase the number of households below the poverty line, mainly driven by income tax levied on the self-employed. The importance of choosing an appropriate, inflation-adjusted PIT threshold in the form of a zero-tax bracket or a tax credit<sup>59</sup>

cannot be overstated when considering equity and poverty-reducing goals.<sup>60</sup> While the threshold must be set above the poverty line, it needs to be balanced against the possibility of undermining coverage and tax revenues.<sup>61</sup>

**National social insurance contributions are considered as lifetime savings schemes, but the incidence of contributions can also affect the net impact on income inequality.**

National insurance contributions (NICs) tend to be treated as deferred income rather than taxation,<sup>62</sup> or are modelled together with PIT (as employment income taxes). There is limited evidence on the incidence of NICs in lower-income countries. However, in the OECD, one study found that, while employment income taxes have become more progressive, including cutting NICs or increasing relief for low-income earners, NICs tend to be regressive in most countries (Joumard et al., 2012). NICs are typically levied at a flat rate proportional to income and are therefore more neutral in principle, but in lower-income countries may be more progressive since they tend to be paid by people in relatively higher-paid, formal employment. Like PIT, the design of allowances, thresholds and rates may make NICs more, or less, progressive. UK NICs, for example, are found to be broadly progressive, except for those at the top of the income scale (the 10<sup>th</sup> income decile) (IFS, 2021). Section 5.2.2 discusses the effect of national insurance schemes on inequality over the lifecycle.

58 PIT, a tax for the self-employed, and social security contributions.

59 Tax credits are more progressive in principle than deductions since the value of the latter depends on the top marginal rate faced by the taxpayer, whereas tax credits are income-tested and hence better targeted at lower-income individuals. Although they are more difficult to implement, more policy advisors are advocating for the introduction of tax credits to increase the registration of taxpayers even if earning low incomes in lower- and middle-income countries (see, for example, World Bank, 2021; Ghana Country Economic Memorandum).

60 There is no clear set of principles around the level of income at which individuals should be taxed, only an optimal taxation literature, which does not really discuss poverty alleviation.

61 Abdel-Kader and de Mooij (2020) show that, in some LICs and LMICs, the threshold is too high, at twice GDP per capita.

62 See, for example, Lustig (2018), Chapter 10.

### 5.2.1.2 Corporate income tax

**Empirical evidence on the incidence of this tax on workers and capital owners (and therefore on income inequality) is inconclusive.** This is due to the complex mediating mechanisms, including labour and capital mobility and wage bargaining institutions. Although corporate income tax is paid by firms, in effect the burden of the tax will be borne by individuals in the form of lower dividend income received by shareholders and employment income by workers or by consumers by facing higher prices, depending on the degree of pass-through in each case.

**Traditionally it was thought that capital owners, who are disproportionately rich, would bear the lion's share of the CIT burden, making CIT a progressive and equalising tax. However, recent evidence from periods of high capital mobility challenge this.** Some estimates suggest workers are likely to bear a significant proportion of the CIT (around one half) in the form of lower wages, although this varies across types of workers (skill, gender and age), labour market institutions and firms (Arulampalam et al., 2012; Fuest et al., 2017). Other estimates from the US suggest that firms' owners and shareholders bear 40% of the tax burden, whilst workers and landowners bear 30–35% and 25–30%, respectively (Suarez Serrato and Zidar, 2016). Consumers are likely to bear some of the burden of CIT in the form of higher prices (Baker et al., 2020). Some economists argue that another important mechanism leading to CIT being less equalising is its negative impact on the corporate sector, inducing a shift of economic activity towards more non-corporate firms that are riskier, leading to higher income dispersion and hence more income inequality (Hines, 2020).

**Corporate income taxes can still be progressive and equalising, even in a world of capital mobility, if countries coordinate, because of its role as a backstop (or withholding device) to personal income taxation.** In the last four decades, in the face of international tax competition and a race to the bottom with the aim of attracting multinational corporate activity, statutory corporate income tax rates have been reduced significantly, albeit not resulting in lower tax revenues (Abramovsky et al., 2014; Steel and Nair, 2021). Global average rates fell from 49% in 1985 to 24% in 2018. Effective rates also declined, but by less due to changes to the tax base (Chancel et al., 2022). Several economists emphasise that lower CIT rates make systems less progressive because high-income individuals have incentives to incorporate to shift income from personal income to corporate income tax bases and minimise tax payments (Saez and Zucman, 2019; Adam and Miller, 2021; Chancel et al., 2022). They argue that the rise in income inequality in the US and other countries is closely linked to a reduction in efforts to tax corporate incomes, and more generally income from capital. A recent agreement signed by over 130 countries to impose a minimum tax of 15% on multinationals is a step in the right direction to minimise an international race to the bottom, complementing other efforts to harmonise the tax base by OECD countries. Some argue that 15% is still too low, however, as it is below average rates of personal income tax and CIT in many countries as (Steel and Nair, 2021; Chancel et al., 2022).

### 5.2.1.3 Wealth/property taxes

**While the evidence on the distributional impact of taxes on immovable property is limited, studies have shown mixed effects on income inequality and poverty. The effect depends on design parameters such as the tax base definition, the distribution**

**of property along the income distribution and the tax structure.** Taxes on property are one type of wealth tax. Others include tax on transfers of wealth (e.g. inheritance tax), tax on increases in the value of wealth (capital gains) or taxes on the value or ownership of assets (e.g. land and property). Wealth taxes can be levied as a one-off tax or on an annual basis. Two examples of regressive and poverty-increasing property taxes can be found in Ethiopia (Hill et al., 2017; Komatsu et al., 2021) and Greece (Andriopoulou et al., 2020). In Ethiopia, rural land use fees and agricultural income tax, effectively a type of property tax since these are levied on landholders and assessed according to the area of agricultural land, is found to be regressive, unequalising and poverty-increasing.<sup>63</sup> Joumard et al. (2012) found that real estate taxes can be regressive when measured as a share of income in several OECD countries, although they are progressive in absolute terms in that they collect a higher amount from better-off households. In contrast, Cancho and Bondarenko (2017) find that local property taxes in Georgia are progressive and equalising. This is because the tax base is defined by the market value of property and land holdings, but the tax rate structure is progressive, with exemptions based on the income earned by the family using a progressive tax rate structure.

**In summary, property taxes can raise some revenue to fund local service provision but**

**there are important issues to consider when designing and administering them that can affect their distributional impact.**<sup>64</sup> In terms of administration, calculating the tax base requires a good system of cadastral valuation, which is costly, but there are new approaches to reduce these costs. In terms of equity and poverty, there are concerns regarding who pays the tax (i.e. owner or occupier), the issue of ability to pay and liquidity issues related to taxpayers having a high-value asset but low income, as well as the design of the rate structure.

**There is scarce evidence on the impact of other wealth taxes on income inequality.**<sup>65</sup> Taxes on broader measures of wealth (like net wealth taxes with a base comprising all types of assets, including property) or on the transfer of wealth have the potential to raise revenues from those with higher ability to pay to fund equalising social spending, addressing income, opportunities and wealth inequalities (Advani et al., 2020; Berg and Hebous, 2021; OECD, 2021). However, economists disagree on whether a well-designed tax system should include wealth taxes. The reasons for this disagreement are complex and include administrative and compliance challenges along with potential distortions to savings, evasion and migration behaviour (see, for instance, Adam and Miller, 2021; OECD, 2021; Pineda et al., 2021; Scheuer and Slemrod, 2021). A credible one-off wealth tax would avoid such distortions. Taxing

<sup>63</sup> In Ethiopia all landholders are liable, and the rate structure implies that small landholders (owning less than 0.5 hectares) pay more in taxes per hectare than larger landholders. Rates can vary across areas based on several dimensions, including whether a kebele is eligible for social assistance, crop value and presence of irrigation.

<sup>64</sup> Property taxes are considered to introduce less behavioural distortion than other wealth taxes since the tax base is more inelastic, i.e. it will respond less to taxation.

<sup>65</sup> There is a small emerging body of evidence about the impact of wealth taxes on income inequality. Berg and Hebous (2021) find that parental wealth inequality can increase inequality of the next generation in terms of both wealth and income inequality, and that a wealth tax can mitigate this effect in the context of Norway. They argue that, in countries with weaker provision of public health and education services, which tend to be equalising, the effect could be even stronger.



wealth on an annual basis introduces further questions, for example around the difficulties of implementing annual wealth assessments and whether that wealth has been taxed when earned through income tax, or when it is spent through consumption taxes, and hence why one would want to tax it again. In any case, to the extent that all taxes are imperfect, they can act as a way of diversifying revenue sources to prevent any given tax from becoming too high if administration costs do not outweigh the benefits (Adam and Miller, 2021). Taxing the transfer of wealth based on the amount received by the recipient can be better for savings and induce positive labour supply responses and charitable donations (OECD, 2021).<sup>66</sup>

### 5.2.2 Direct cash transfers

**Fiscal incidence studies show that cash transfers account for most of the redistribution achieved through fiscal policy via direct and indirect taxes, cash transfers and indirect subsidies (the ‘cash portion’ of fiscal policy) across countries.** As noted in Section 5.1, in OECD countries evidence suggests that, of all the redistribution achieved through direct taxes and cash transfers, the latter account for the vast majority (Joumard et al., 2012). In low- and middle-income countries, studies show that direct cash transfers are the main driver among the cash portion of fiscal policy (taxes, cash transfers and indirect subsidies) in reducing income inequality and alleviating poverty (Lustig,

2018). The literature also suggests that cash transfers have the potential to improve individuals’ equality of opportunity and, hence, have an impact on reducing inequality across generations.

**Globally, cash transfer instruments have varying impacts on income inequality and poverty depending on their financing and design, beneficiaries’ response to the transfers and the underlying income distribution.** Key aspects of transfer design include whether they are contributory or non-contributory, and whether they are means-tested, targeted or available to the entire population (i.e. universal). Other important factors include the size of the transfer and how well-targeted it is in terms of reaching only intended beneficiaries, for instance those with lower incomes. The net impact also depends on the incidence of taxation or contributions used to finance transfers. While most non-contributory schemes tend to be financed by general taxes, formal social security contributions by employers and employees may also be used to finance transfers, as in the case of Brazil’s *Benefício de Prestação Continuada* transfer to poor persons with disabilities and the elderly (Medeiro et al., 2006; Wapling et al., 2020). Equally, contributory schemes like social insurance pensions are accessed only by individuals who have contributed over their working lives and may include a minimum pension guarantee financed implicitly through taxes (Palacios and Robalino, 2020). If benefits are disconnected

<sup>66</sup> A recent study by the UK Wealth Tax Commission, led by the London School of Economics (Advani et al., 2020), showed public support for a wealth tax (preference for any increase in tax to be from wealth rather than income) and estimated that a one-off tax of 1% (charged over five years on wealth >£500,000) could raise revenues by the same as an increase in basic marginal income tax from 20% to 29%. In addition, they argue a one-off tax is efficient and ‘relatively progressive’. They also suggest including a deferment provision for the ‘asset-rich, cash-poor’. Regarding an annual wealth tax, due to difficulties in doing an annual assessment of wealth, which can keep changing, they recommend reforming existing taxes such as inheritance tax, capital gains tax and council tax, unless the objective is wealth redistribution (or limiting wealth accumulation), in which case a full annual wealth tax would be more effective.

from contributions, NICs can become, in effect, a second income tax, as in the UK, where the National Insurance Fund is used to reduce national debt in surplus years and is topped up from general taxation during a deficit (IFS, 2021).

**The size of the transfer combined with the targeting mechanism is key in determining the first-order direct impact of schemes on income redistribution and poverty reduction.**

For example, in some countries cash transfers are highly progressive but have a small equalising effect because they represent a small share of households' income, as in Panama, Paraguay and Peru, achieving less than half a percentage point reduction between the Gini coefficient before and after transfers (Amaranta and Brun, 2018). In other countries, better transfer adequacy translates into a larger impact on income inequality, as in Mexico and Brazil (Soares et al., 2009). In Ethiopia, the evidence shows that the two main transfer schemes, the Productive Safety Net Program (PSNP) direct cash transfer scheme and the near-cash transfer programme providing food aid, are both progressive, equalising and pro-poor, with over 58% of the benefits going to households below the national poverty line (Inchauste and Lustig, 2017). However, there are concerns about their effectiveness, related to both targeting and adequacy.<sup>67</sup>

**The design of cash transfers has changed over time across countries, contributing more to reducing/addressing income**

**inequality and poverty in several emerging economies and some middle-income countries, whilst reducing their redistributive impact in OECD countries.** This is the case in a range of Latin American countries (Amaranta and Brun, 2018; Balestra et al., 2018) where conditional cash transfers targeted to the poor using means-testing have expanded significantly. Payments in these cases tend to be conditioned on certain behaviours thought to foster the human capital development needed to break the intergenerational transmission of poverty (like the pioneering scheme Progresia in Mexico and Bolsa Familia in Brazil). In Brazil, cash transfers, combined with other policies (crucially the 128% increase in the real minimum wage between 1996 and 2012), have been key in the reduction of poverty and income inequality (Brito and Kerstenetzky, 2019; Engbom and Moser, 2021). In OECD countries, the size of cash transfers has been reduced, reducing their impact on income redistribution (Causa and Hermasen, 2020). This has been driven particularly by less redistributive transfers to workless individuals or individuals who do not have a long-term employee contract with access to social insurance.

**There is growing debate about the merits of poverty-targeted transfers versus universal cash transfers.** Universal transfers are available to anyone, i.e. they do not impose any condition for eligibility, and are usually paid to individuals rather than households; universal basic income (UBI) schemes are one example. Transfers that are

<sup>67</sup> The PSNP is more effective at reducing inequality and poverty than the food aid programme, which is an emergency scheme with higher targeting errors. However, its adequacy seems very low. The size of the transfers as a share of market income of poorest households is around 20% for the PSNP. This is low compared to those offered by other middle-income countries like Armenia, Argentina and South Africa or the high-income country Uruguay, but higher than in Indonesia and Peru, for example. Sabates-Wheeler et al. (2021) document that the PSNP, despite being a large-scale social protection programme that has alleviated deep poverty and prevented people from becoming destitute, has failed to sustainably lift people out of poverty due to limited funds and administrative capacity.



targeted use criteria to define eligibility. Targeting could be categorical, which often uses observable criteria, such as age or geography. Means-tested transfers are those for which eligibility (and sometimes transfer size) is based on assessed income, but this requires a system to define, measure and verify income or economic ‘means’. Where direct means testing is not feasible, proxy means tests may use observable characteristics that are assumed (or estimated to be) correlated with income (or means). In practice, countries use a combination of schemes with a variety of targeting criteria to provide social protection, like old-age pensions and child benefits combined with means-tested transfers.<sup>68</sup>

**When considering whether to implement a universal or targeted scheme, a key factor in policy choice is determining who should be included or excluded. This is sometimes confused with inclusion and exclusion error, which is a measure of programme effectiveness, based on its design.** A country’s policy choice will be based on attitudes to fairness and the role of the state, determining who should qualify for assistance, who is ‘deserving’ or ‘undeserving’. The design of a programme should then reflect those choices through either a universal approach or a more targeted approach using categorical data, means tests or other criteria or processes to identify

and assist those eligible. Inclusion and exclusion error refers to the programme in place and how well it is implemented in practice, rather than a comparison with a counterfactual programme with different aims or advocacy position.<sup>69</sup> The share of those deemed eligible by virtue of the design of a programme but not receiving the benefit can be described as exclusion error (known in UK government programmes, for instance, as the ‘entitled non-recipient’). Inclusion error refers to someone not eligible by design but receiving the benefit (or ‘non-entitled recipient’).

**Under a budget-neutral scenario, poverty-targeted transfers can focus resources where they are needed most, to achieve a deeper impact on poverty and income inequality. But this may introduce perverse incentives, is typically more administratively complex, and does not cover the vulnerable and non-poor, relative to universal transfers** (Coady and Le, 2020; Gentilini et al., 2020).

Negative labour supply effects from means-tested transfers are a long-standing concern. Negative real employment effects have been observed in HICs if transfers have an employment focus (Immervoll et al., 2007; IMF, 2017), but are less prevalent in non-HICs for a range of reasons, including slow withdrawal of benefits in practice or no implementation of benefit withdrawal at all but high levels of unregistered (or informal)

68 MacLeod et al. (2021) highlight the importance of flexible targeting to include cultural idiosyncrasies as the PSNP does in Ethiopia, which relies on community-level decision-making to identify beneficiaries, achieving low-cost and high-accuracy targeting.

69 For example, Devereux (2021) uses this definition: ‘Inclusion error is defined as the proportion of programme beneficiaries who are not eligible. Exclusion error is defined as the proportion of people who are eligible but not reached by the programme ... Consider a country with 2 million residents, 800,000 of whom are poor (poverty = 40 per cent). A poverty-targeted programme, which in theory aims at benefiting 800,000 poor residents, delivers cash transfers to 700,000 people, 500,000 of whom are poor while 200,000 are not poor. Inclusion error in this programme is 29 per cent (200,000/700,000). Exclusion error is 38 per cent (300,000/800,000)’.

employment.<sup>70</sup> Evidence from non-HIC contexts suggests that means-tested transfers induce a reduction in formal employment or formal earnings since often this is used for verification of means, but there is no conclusive evidence that cash transfers reduce overall labour supply and hours of work (Bosch and Manacorda, 2012; Bastagli et al., 2016; Banerjee et al., 2017).<sup>71</sup> They can also have positive effects on productive investments, activities and savings, counteracting potential individual beneficiaries' disincentives to, for example, work formally or informally (Bastagli et al., 2016; Banerjee et al., 2017), and lead to increases in local formal employment (Gerard et al., 2021) or local agricultural activity (Correa et al., 2021). Means-tested cash transfers depend on sophisticated and robust administrative capacity and the ability of beneficiaries to participate and comply, which is costly and generally weaker in low- and middle-income countries.<sup>72</sup> Social costs relate to beneficiary stigma and political costs involve loss of support from the middle classes for redistribution (Coady and Le, 2020).

**Means-tested targeting schemes can be designed to include built-in features to mitigate some of their disadvantages, including perverse incentives.** For example, earned income tax credits are known to incentivise labour supply among beneficiaries, rather than disincentivising it (Eissa and Hoynes, 2006). Public works schemes, which are usually poverty-targeted, require that beneficiaries work in a

community or public project in order to access the schemes, mitigating the disincentives to work for the duration of the programme (Orkin et al., 2022). These are attractive schemes, particularly where there are public goods arising from well-targeted public works programmes, such as forests or irrigation systems (e.g. Ethiopia's PSNP). The effectiveness of public works programmes depends, however, on a range of factors, including who can work or comes forward for work and whether the work displaces private employment. Increasing the lumpiness of the transfer (granting a one-off payment as opposed to the same amount in monthly payments) may allow households to invest in productive assets and expand economic activities (Orkin et al., 2022). The duration of the transfer can be extended to a year or longer rather than monthly, helping smooth risks for recipients who often face seasonal income fluctuations common in agricultural activities. For example, in Oportunidades (Mexico), eligibility is assessed every three years, and in Chile's Solidario, people can stay in the programme for up to five years (Orkin et al., 2022).

**There are a host of administrative and delivery challenges that can affect the poverty and inequality impact and cost-effectiveness of poverty-targeted cash transfers.** Targeting and its associated delivery technology in LICs and LMICs is still highly imperfect, and is in need of further improvement.

70 If benefits are withdrawn too quickly as earned income raises, this may generate a disincentive to work (formally). To mitigate this, many of these countries increasingly condition eligibility on participation in the (formal) labour market, and are introducing an EITC (or wage subsidies), discussed in Section 5.2.1.1.

71 More recent evidence from Uruguay finds that a shift to both informal employment and inactivity drive the observed decreases in formal employment (Bergolo and Cruces, 2021).

72 The more indirect the way of targeting the poor used, as is the case in contexts of low administrative capacity, the more likely it is that poor individuals and households will not be covered by the system and many non-poor will benefit from it, i.e. the higher the leakage to the non-poor (see, for instance, Ravallion, 2017; Brown et al., 2018; Lustig, 2018).

Identifying the population in need is a difficult task. The delivery of payments and monitoring of conditionalities in the context of conditional cash transfers is costly and presents its own challenges, which can also affect the cost-effectiveness of schemes in achieving poverty and income inequality reductions. For example, Robles et al. (2019) estimate that, in Latin America and the Caribbean, conditional cash transfers and non-contributory pension schemes are underused by the poor, including the extreme poor. These two types of schemes cover only 50% of extreme poor households with children under 18 and of households with elderly members with no contributory pensions. At the same time, around 50% of recipients are non-poor households. The authors argue that there is a need to improve targeting mechanisms. Related to this, OECD (2015) advocates for the use of single registries of vulnerable households to improve targeting and cost-effectiveness.<sup>73</sup>

**Existing and emerging technologies are being employed to overcome some of these administrative barriers, some of which were deployed or expanded during the Covid-19 pandemic.** Some countries have developed databases or censuses of individuals defined as poor, which have been used to distribute assistance. Examples include Chile's ID-linked basic account for the poor and India's Public Distribution System, designed to promote food security through the provision of subsidised food grains to approximately 67% of the population. Where information did not exist already, to

deliver emergency response during the pandemic collection efforts were employed to identify and enrol under-served groups, including self-registration.<sup>74</sup> Mobile money platforms were also used in some countries for cash transfers. Some data gaps and systems pre-Covid have therefore been filled through the process of crisis response, which may have longer-term benefits in assisting the vulnerable in future. Such technology solutions carry risks, however, including loss of transparency, data misuse or privacy violations, or errors in selection criteria, particularly if they require access to the internet or a smartphone.<sup>75</sup>

**Universal transfers (or universal basic income schemes) address most of the disadvantages of means-testing and help provide income protection for all, but achieving adequacy is expensive.** As discussed in Section 2.4, provision of universal social protection floors for all countries is recommended for the achievement of SDG1.3 by 2030. This includes access to universal basic protections to cover loss of income in at least four areas: children, maternity, disability and old age. The cost of achieving SDG1.3 by 2030 (considering Covid-19 effects) was estimated by Durán-Valverde et al. (2020) at 3.3% of GDP across 134 LIC. This represents 8.5% of GDP in LICs, 3.4% in LMICs and 3.2% in UMICs. Considering the investment already made in social protection across countries, the study found the financing gap to be approximately 7.4% of GDP in LICs, 2.4% in LMICs and 2.1% in UMICs. If healthcare is also

73 Uzbekistan has recently introduced a Single Registry for Social Protection, which integrates electronically all information management functions across all schemes in the country including registration, targeting, enrolment, payment and case and grievance management, as well as a monitoring and reporting module that feed backs to policy-makers (Chirchir and Kibicho, 2021). The registry has been central in facilitating the fiscal response to the Covid-19 pandemic.

74 Pakistan encouraged vulnerable individuals to text for assistance (McKinsey, 2021).

75 In Bihar State in India, support to migrant workers required ID validation through a phone app.

included, the gaps rise to 15.9%, 5.1% and 3.1%, respectively. Financing needs as a share of GDP are likely to increase towards 2030.

**Expansion towards universal social floors may be feasible in the medium term in UMICs and LMICs, but unlikely in LICs.**

Since social protection systems are typically financed through a combination of tax-funded non-contributory schemes and contributory social insurance systems, Durán-Valverde et al. (2020) estimate the potential for these schemes to be expanded to cover financing gaps. They find that contributory social insurance systems have the potential to expand up to 1.2% of GDP (0.4–0.8% in LICs). If achieved, this expansion could make a significant contribution towards meeting the financing gap in LMICs and UMICs, but much less in LICs. While tax revenues and external financing for social protection also have some potential to expand, as discussed earlier, these sources are also likely to be insufficient to provide universal coverage in the near future, particularly for LICs. Over time, as institutional and fiscal capacities develop, the limited resources available will need to be allocated in the most cost-effective way to provide partial coverage fairly, and in line with the most urgent policy priorities.

**Universal cash transfers, or UBI schemes, can also lead to employment-related disincentives or can be difficult to justify due to inclusion of the ‘undeserving’.**

Some argue that universal benefits can make people lazy, but lessons from large-scale nearly universal transfers suggest that these risks are modest if present at all, and these schemes can generate a range of other positive effects by enabling, for example, investment in children (Banerjee et al., 2019; Gentilini et al., 2020). Advocates of UBI schemes

usually argue that they should be implemented alongside progressive personal income tax systems to claw back transfers from beneficiaries on higher incomes, which would in effect have the same result as a means-tested cash transfer. All in all, there is still limited experience to understand the wider effects of universal cash transfers. A few countries are experimenting with basic income, though not necessarily *universal* basic income. Most are limited to samples of a few thousand people, based on locality or preferred target groups.<sup>76</sup>

**In practice, the net benefits of universal basic income will vary from country to country, depending on how it compares to existing schemes’ coverage and adequacy.**

The merits of introducing UBI will depend on a range of factors, including how well the existing safety net is working in terms of coverage and progressivity, how it is financed (which will also affect its net distributional and poverty effect), the impact on labour supply and the administrative capacity to implement more complex mechanisms of targeting (IMF, 2017). According to simulations by the IMF (2017), replacing existing means-tested schemes with budget-neutral UBI in countries like the UK and France, with good coverage and high progressivity through direct cash transfers and EITC, could be detrimental to poverty reduction and income equality. In a country like Brazil, with high progressivity and low coverage, UBI could provide better coverage but at the cost of harming a high proportion of low-income beneficiaries of the means-tested scheme. In Bolivia, with an existing scheme with poor coverage and low progressivity, a weak PIT system and weak administrative capacity, UBI could provide a powerful tool for poverty and extreme poverty alleviation, although its net redistributive effect is unclear ex-ante. If the system is working well

<sup>76</sup> This [blogpost](#) provides a list of basic income schemes around the world as of October 2020.

in terms of income redistribution and there are funds available, a UBI could be introduced as an additional policy to act as a method of reducing automation-driven job insecurity or of sharing social dividends (Gentilini et al., 2020).

**A more cost-effective middle way may be categorical targeting to achieve coverage closer to universality and potentially avoid the disadvantages of poverty targeting.**

Some experts argue that categorical targeting would achieve better social policies, particularly in countries with low administrative capacity and inefficient fine targeting schemes (Brown et al., 2018; Evans, 2022). Furthermore, when budget constraints are not binding, categorical transfers may be costlier than fine poverty targeting but achieve better social support (especially from the middle classes) for poverty-alleviating schemes (Sen, 1995). Brown et al. (2018) suggest that the best alternative may be state-contingent basic income, which is similar to categorical poverty indicators. In practice, categorical targeting will have less than universal coverage, may leave some poor households and people out by design and may also suffer from the same inclusion and exclusion errors as poverty-targeting.

**Employment-based contributory social insurance schemes play an important role in tackling inequality and providing income protection, but are inadequate for situations of long-term unemployment, more casual contracting arrangements and informality.**

The highest reductions in inequality have been achieved by countries that invest in universal social security, but examples from the Asia-Pacific region indicate that, without a well-designed universal system, significant populations are

excluded and or well-covered by non-contributory transfers (Kidd et al., 2022). These concerns have led countries to expand their non-contributory social protection schemes.

**National social insurance schemes are not all designed to reduce inequality, but the most equalising schemes are likely to combine a proportional contributory programme with a well-designed, non-contributory and targeted component.**

A synthesis of five studies in Latin America, which assessed the impact of social security on income distribution and inequality on a lifetime basis, found that: (1) programmes with pension benefits proportional to contributions have little impact on inequality over the lifecycle, but provide useful income protection against adversity (e.g. Mexico); (2) unfunded, defined-benefit programmes tend to redistribute among income groups, without reducing inequality overall (e.g. Argentina, Brazil); and (3) proportional contributory programmes combined with a well-designed non-contributory component for the lowest incomes (e.g. Chile) can have the greatest impact on inequality while avoiding labour market disincentives (Forteza, 2015). This finding is supported by Palacios and Robalino (2020), who advocate for integration of ‘the insurance function (actuarially-fair risk pooling or savings) and the redistributive function (transfers) of the social protection system in order to expand coverage, improve equity, and reduce labour market distortions’. Local savings groups, which are relatively common in Africa,<sup>77</sup> can also provide a form of informal social insurance. For example, Kenya’s rotating savings groups (ROSCAs) have been used to enrol members in the national health insurance scheme (Oraro and Wyss, 2018).

77 According to The Global Findex Database 2021 (Demirgüç-Kunt et al., 2022), 25% of adults in sub-Saharan Africa reported saving semi-formally using a community-based savings group.

**In practice, countries typically implement a combination of different transfer schemes. Evidence suggests that the existing mix of schemes may not be optimal and can be improved.** The mix of schemes ranges from narrow means-testing to categorical or virtually universal transfers and non-contributory or contributory transfers, varying in size and in their redistributive impacts. The most effective mix in practice will likely depend on how governments and societies choose to trade off context-specific costs and benefits. Factors affecting these choices include attitudes towards the role of the state and wider policy objectives (e.g. reduce absolute poverty and/or income inequality or ensure all children have free school meals), administrative capacity, fiscal space and how these transfers are financed, underlying income distribution and poverty levels, employment and other characteristics of individuals and households. We discuss implications for policy further in Section 6.

### 5.2.3 Indirect taxes

#### 5.2.3.1 General consumption taxes

**General consumption taxes, such as sales or value added tax, have often been found to be regressive, in that richer households pay less as a proportion of their income than poorer households.** For example, OECD (2014) finds that both VAT and excise taxes (alcohol, tobacco and transport fuels taxes) are regressive and unequalising for most of the 20 OECD countries in the study when considered as a share of income at a point in time. Cubero and Hollar (2010) find

a similar result in Central America. Evidence also shows that indirect taxes are poverty-increasing in LMICs. Younger and Khachatryan (2017) find that, in Armenia, VAT and tobacco excise duties are mildly regressive and increase poverty substantially. Cancho and Bondarenko (2017) find that VAT is regressive and increases poverty in Georgia, and this is exacerbated by using exemptions or zero rates on goods that are not necessarily consumed proportionally more by households with the lowest income. Arunatilake et al. (2017) find that VAT is unequalising and poverty-increasing in Sri Lanka. Mesfin and Gao (2020) find that indirect taxes (VAT and excise duties combined) are progressive and equalising in Ethiopia, though also poverty-increasing.

**VAT exemptions on essential goods are introduced to reduce the poverty and regressive impacts of VAT, but there may be more cost-effective policy instruments available.**

VAT exemptions are generally granted on goods and services thought to make up a greater proportion of the budgets of poorer households, such as basic foodstuffs and kerosene. However, the benefits accrue disproportionately to high-consumption households, who spend more in absolute terms on exempt and reduced rate goods and services. This means that it is an expensive policy choice in terms of revenues foregone for a relatively low impact on poverty.<sup>78</sup> For example, Warwick et al. (2021) find that preferential VAT rates and exemptions do reduce poverty overall, but are not well targeted towards poor households in Ethiopia, Ghana,

<sup>78</sup> Tax expenditure analyses show that exemptions and differential rates represent a substantial share of revenue loss across country income groups. Poniatowski et al. (2019) estimate that VAT systems in the EU levied on final consumption and household investment collect just above 50% of what they could collect in the case of perfect compliance due to reduced rates and exemptions. According to UNECA (2019), in Africa, among the 24 countries with adequate data, 12 had a VAT gap of 50% or more in 2018. The VAT gap is the total gap between potential and actual VAT revenues and is driven by both policy (exemptions and reduced or zero rates) and compliance factors.



Senegal, Zambia. They also find that existing cash transfer schemes are better targeted but have limited coverage in these countries, so are unsuitable for supporting broad-based VAT reform in these countries. An alternative, broader measure could be using 75% of the additional VAT revenue from the removed exemptions to fund a UBI, which could have overall large net gains for poor households and reduce inequality and most measures of extreme poverty in each of the countries studied.

**When taking high levels of informality into account, VAT may not be so regressive, and may, in fact, be progressive.** Recent evidence finds that the negative distributional impact of VAT dampens or even reverses when accounting for informality systematically in product markets, especially in low-income countries, implying that exempting goods, particularly foodstuffs, from VAT cannot be rationalised on equity grounds even in the absence of a strong transfer system in these contexts.<sup>79</sup> Bachas et al. (2021) find that consumption taxes can have a positive redistributive effect in low-income countries when informality is systematically taken into account.<sup>80</sup> Households with lower incomes tend to purchase goods and services from suppliers that are not VAT-registered, and this shields them from consumption taxes to a larger extent than richer households. Bachas et al. find that the impact is larger for the poorest countries. Households in the richest quintile face an effective tax rate that is twice that of the poorest quintile.

**Finally, most economists agree that a broad-based VAT with minimal exemptions or alternative rates and a sufficiently high threshold is the best way to raise revenues and fund better-targeted spending policies to reduce inequality and poverty.** Even where consumption taxes are regressive, the net distributional impact they have, as part of a broader fiscal system and the social spending they fund, is a more important factor. Although there seems to be a trade-off between equity and efficiency when taken as individual fiscal instruments, a consumption tax that is regressive, while being efficient in collecting revenue, may still form an important part of a more equalising and poverty-reducing fiscal system if it finances a well-targeted transfer system that more than compensates the poor (see, for example, Lustig (2018); Warwick et al. (2021)). At the same time, there is also broad consensus that VAT systems that are full of exemptions and differential rates, lacking a clear policy rationale, can also harm economic growth by introducing distortions and administrative challenges.<sup>81</sup> These conclusions highlight the importance of thinking about this trade-off in the context of the overall tax and spend system.

### 5.2.3.2 Excise taxes

**A key motivation for excise taxes is to change behaviour away from consumption of harmful goods or activities by altering relative prices to capture the wider costs to society (negative externalities).** Market prices typically do not reflect the environmental damage

79 It is now recognised that the distributional impact of consumption taxes should be assessed in relation to consumption expenditures, considered to be a better indicator of economic wellbeing than income, and this usually dampens or even reverses the negative distributional impact seen when assessed as a share of income.

80 They consider 31 countries, mostly in sub-Saharan Africa and Latin America.

81 See, for instance, Abramovsky et al. (2018) and Acosta-Ormaechea and Morozumi (2021). The latter found that, in OECD countries, an increase in VAT revenues through removing exemptions and reduced rates is better for economic growth than achieving the same revenue through increasing the standard VAT rate.



from the consumption of fossil fuels or plastics, for example. Other examples include congestion, noise and traffic accidents from motor usage, or disease and ill-health caused by smoking and drinking alcohol. An indirect tax, designed to be commensurate with the wider cost of damage, is imposed on either the quantity consumed (a fixed amount is levied per unit of the product, as a specific or *ad quantum* tax) or on the value (*ad valorem*). The tax acts to ‘internalise’ the externality in consumer choices and supplier investment decisions. Since many of these goods are price inelastic (the quantity consumed is less responsive to changes in price) the resulting tax increase tends to yield additional revenue. ‘Green’ or environmental taxes are also thought to provide a ‘double dividend’ in terms of efficiency: they reduce negative externalities and are more efficient than other taxes. Cnossen (2020) argues that excise duties generally improve the efficient allocation of resources whilst being consistent with an equitable tax system. They can also be administered with relative ease compared to income and value added taxes.

**Most excise taxes are poverty-increasing but their impact on income inequality is ambiguous, and product- and context-specific.** The impact of excise taxes on income inequality and poverty will depend on the goods on which they are imposed and how consumption patterns vary along the income or expenditure distribution. This is likely to be country-specific. If excise taxes are levied on goods that represent a higher proportion of expenditure for lower-income households, it will be regressive. At the

same time, if the price elasticity of demand is higher for these households, the desired impact on behaviour would be higher, and eventually the regressive impact could be dampened.

**Motor fuels, motor vehicle ownership and road use are often progressive and equalising in LICs and LMICs given consumption patterns, although they can increase poverty. They tend to be regressive in richer countries.** Advani et al. (2021b) find

that environmental taxes are progressive in Ghana. Consistent with these findings, Kavuma et al. (2020) find that combined excise duties (sin duties, fuel duties and others)<sup>82</sup> are progressive in Uganda, with vehicle fuel excise duties being the most progressive. Inchauste et al. (2017) find that fuel duty is equalising and poverty-increasing in South Africa. In Sri Lanka, Arunatilake et al. (2017) find that petroleum excises are mildly progressive and equalising, and poverty-increasing. Dorband et al. (2019) find that, in most lower-income countries, the first-order effect of an increase in carbon prices (some of them induced by excise duties) tends to be progressive, whilst in richer countries it tends to be regressive, given prevailing consumption patterns and more carbonised energy systems.

**Sin taxes are usually regressive and poverty-increasing in most contexts in the short term. However, the long-run health benefits may outweigh the initial regressive impact on income.** For example, recent evidence from basic fiscal incidence studies shows that excise duties levied on tobacco and alcohol are

82 Sin taxes are levied on alcoholic beverages and cigarettes and make up the largest share of the excise duties paid by the lowest deciles. Fuel excise consists of taxes on petrol, diesel and kerosene. They represent only 2% of total excises paid by decile one, and up to 69% paid by decile ten. Other excise duties include sugar, mineral water, soft drinks, fruit juices, other juices, mobile phone airtime, mobile payments and furniture. Most of the revenue comes from mobile phone airtime, paid mainly by households in the middle deciles.

regressive, unequalising and poverty-increasing (see Arunatilake et al., 2017, for Sri Lanka and Inchauste et al., 2017, for South Africa). Liquor taxes have been found to be progressive but poverty-increasing in South Africa (Inchauste et al., 2017). Allcott et al. (2019) argue that, in the US, taxes on sugar-sweetened beverages are also regressive given consumption patterns, but they can become less so when low-income households shift away from consuming these products, in turn increasing health outcomes and decreasing health expenditure for this group proportionally more. Evidence from Ukraine, Chile and South Africa is consistent with the idea that taxes on tobacco generate health gains that are larger than the tax liabilities in the long run (Fuchs et al., 2017; 2018; Fuchs and Meneses, 2017).

**The potential negative impact of excise duties on income inequality and poverty could be addressed through cash transfers or other targeted social spending funded by revenues raised through these taxes.**

Vogt-Scgilb et al. (2019) highlight the difficulty of introducing carbon taxes imposed on both CO<sub>2</sub> emissions and non-CO<sub>2</sub> greenhouse gas emissions (methane, nitrous oxide, and F gases) due to their direct effect on fossil fuels and electricity prices, and their indirect price effects on all goods and services that use these inputs, including food. This can increase poverty, but they argue that, in Latin America, given well-developed cash transfer systems, a share of the collected revenues can be used to fund cash transfers to compensate the poorest and most vulnerable households (sometimes referred to as ‘revenue recycling’), whilst leaving extra revenues for other spending priorities. Similarly, Allcott et al. (2019) argue that sugar taxes are likely to be poverty-increasing and regressive in the short run because lower-income households spend a higher proportion of their budget on sugar-sweetened products

and this effect could be dampened by revenue recycling used to fund cash transfers targeted to the poorest. In addition, they argue that overall consumption is likely to decrease as a result of the tax, leading to a smaller regressive effect and a positive health effect in the medium to long run. Beegle and de la Fuente (2019) support this view.

### 5.2.3.3 Trade taxes

**On average, evidence seems to suggest that trade taxes, through their first-order impact on consumer prices, tend to increase poverty. Their impact on income inequality is more nuanced and depends on many factors, including differences between consumption patterns of rich and poor, the origin of imports and the tariff structure.** The

impact of trade tariffs on income inequality and poverty is difficult to model since data on whether goods and services consumed by households and individuals are imported, their quality, quantity and price, is not easily available. Their distributional impact depends on several factors, such as tariff structure and how consumption patterns vary across the income distribution. A broad increase in tariffs has a first-order impact on consumer prices, decreasing welfare across the income distribution, but the net effect on income inequality could be negligible. Evidence from the UK suggests that poorer households tend to consume more tradeable goods, while richer ones spend a higher proportion on imports, potentially netting out each other and having no significant impact on income inequality (Atkin, 2021).

Evidence from middle-income countries suggests that a reduction in tariffs from goods imported from the NAFTA area has benefited higher-income individuals, since NAFTA countries and other advanced economies are relatively more efficient at producing and exporting goods consumed by the rich, like cars (Faber, 2014; Atkin, 2021). Evidence from Ghana shows that a reduction in

tariffs by 50% in 2019 led to a fall in consumer prices that reduced poverty but increased income inequality overall (Iddrisu, 2020).

**Tariffs, like other consumption taxes, raise revenues. How this revenue is used can affect the overall impact of the tax and spending system on income inequality and poverty.**

Trade tariffs were traditionally used to raise revenue since they are relatively easy to collect at the border. Trade taxes are considered inefficient, however, since they impose a barrier to free trade and, by taxing imported goods and services, both final and intermediate, interfere with firms' choice of intermediate inputs and from where to source them (Diamond and Mirlees, 1971). Although these taxes still account for between 8% and 15% of total tax revenues in non-HICs, there has been a steady reduction in the share of revenues from trade taxes across all country groups on average in the face of globalisation and the harmonisation of tariff structures with lower, more standardised rates across countries arising from the proliferation of international, regional and bilateral trade agreements. Recent political trends towards nationalism have seen some push-back to this approach, leading to an increase in or reinstatement of trade taxes, including in the US (Carroll and Hur, 2022).

#### 5.2.4 Indirect subsidies

**Indirect subsidies are often found not to be pro-poor, although the results from studies are mixed.** Indirect subsidies include price subsidies on the consumption of fossil fuels and other energy sources, water and sanitation services and food items. As with excise duties and trade taxes, their distributional impact depends on how consumption patterns vary across income deciles. Although some subsidies

are progressive, equalising and poverty-reducing, as with VAT exemptions and lower VAT rates, they often have weak targeting properties and tend to perform much worse than targeted cash transfers and transfers in-kind in terms of reducing poverty and income inequality. This is because richer households consume larger quantities than households in the lower deciles, and hence the absolute value of subsidies accruing to the former is larger than that accruing to latter. (See Jouini et al. (2018) for evidence from Tunisia and Arunatilake et al. (2017) for evidence from Sri Lanka on indirect subsidies to water, electricity and fertilisers.) In some cases, subsidies are also regressive, as with piped water consumption subsidies in many low- and middle-income countries. Abramovsky et al. (2020) cite evidence from 10 LIC where these subsidies are mostly captured by the richest households, predominantly because poorer households lack access to piped water.

**Indirect subsidies are not the most efficient instrument to achieve inequality and poverty outcomes; other fiscal instruments like cash transfers may be more cost-effective.**

For example, in Indonesia, Jellema et al. (2017) estimate indirect subsidies to fuel and electricity receive a budget allocation 10 times larger than the allocation to direct transfers, but the impact of indirect subsidies on inequality is smaller. This implies that reforms to indirect subsidy regimes should be considered since these are often an inefficient and costly option to protect the poor (Coady et al., 2012). This cost can be even higher in contexts with limited resources and high returns to public spending.

### 5.2.5 In-kind transfers: education and health spending

**In-kind transfers tend to be equalising and poverty-reducing, so have the potential to tackle both equality and efficiency goals simultaneously, fostering inclusive economic growth through improved human capital and productivity** (Zouhar et al., 2021; IMF, 2017). In

Section 5.1 we discussed evidence from incidence analysis of the monetised value of these public services, abstracting from their quality, showing that they are generally equalising, particularly in HICs and UMICs. Balestra et al. (2018) find that, in several emerging and middle-income countries, there has been an expansion in the coverage of unemployment and health benefits, alongside an increase in education spending (what we refer to as in-kind transfers, discussed below) in the last two decades. Having said this, the way basic fiscal incidence analyses allocate spending to households, based on average costs of delivery, may overestimate the progressivity and poverty impact. Issues of how to value different types of public services, considering not only their costs but also their quality and returns, and how this varies across the income distribution, must also be considered when interpreting distributional impact analysis (see, for instance, O’Dea and Preston (2010) and Zouhar et al. (2021)).

**The impact of in-kind transfers on income inequality depends on the type of public education and health spending and how patterns of access to and consumption of different services varies along the income distribution.** Lustig (2018) shows that total spending on education is pro-poor in HICs and UMICs but neutral in most of the LICs and LMICs considered in her study,<sup>83</sup> with variation across

types of education and countries. Preschool and primary education tends to be pro-poor in most countries, although there are still gaps in access to early childhood education across the income distribution (IMF, 2017). Secondary school results are more mixed across countries, with many achieving a neutral impact in absolute terms (per capita spending does not vary with market income), but in many countries access is still a challenge. Tertiary education is never pro-poor and is regressive in many countries because children from higher-income households tend to access it. Health spending results vary significantly across countries in terms of their pro-poorness (Lustig, 2015; 2018). Access to primary health care by low-income households is an important factor affecting the extent to which health spending is pro-poor. In LICs this can still be challenging, particularly in rural areas (Lustig, 2015).

**There are likely complementarities in health and education, since education outcomes can be improved by ensuring children have good health, which is a prerequisite to learning, and these can increase the impact on economic growth of each type of spending.** In addition, there may be complementarities between cash and in-kind transfers, which conditional cash transfers aim to exploit. For example, cash transfers to lower-income households that are conditional on school-age children attending school or children under five getting health check-ups and vaccinations can lift households out of poverty whilst ensuring families invest in their children’s health and education, assuming there is access to public provision of health and education. Cash and in-kind transfers cannot be considered as direct

83 Idem fn. 45.

substitutes (or interchangeable) since people in poverty need cash to meet basic needs like food, housing and other services.

**Finally, the impact of in-kind spending is dependent on the quality of and access to services and how this varies across the income distribution. There are significant gaps in both access and quality in several lower-income countries.** Universal access to quality public services is still a challenge in many LICs and LMICs (Bastagli, 2015; IMF, 2017). The learning outcomes of disadvantaged children are worse due to poor-quality services, partly explained by a lack of resources but also gaps in teacher effort, knowledge and skills, highlighting the importance not only of the level of spending, but also how these inputs are spent (Woessman, 2016; Bold et al., 2017; IMF, 2017). Concerns about the quality of public primary and secondary education have resulted in the middle and upper classes opting out of the public system to enrol in private systems, and children from low-income households dropping out of high school and hence never accessing tertiary education. Significant gaps in the quality of health care have also been identified in many lower-income countries, varying within country as well, with the most vulnerable people faring the worst (Kruk et al., 2018; Gatti et al., 2021).

**Improving governance structures for public spending systems and minimising corruption and waste are key to ensure impacts on poverty and inequality and returns to public spending are positive.** More generally, the impact of health and education on poverty and inequality will depend on the cost-effectiveness of public service delivery, which can be affected by the quality of services but also by corruption and waste (Gupta, 2018; Zouhar et al., 2021). Having access to physical infrastructure, like schools and health care centres or hospitals, and employing teachers and

health workers may still result in a lack of access to high-quality services due to, for example, higher rates of absenteeism or low effort of workers when present at their work site (Chaudhury et al., 2006; Bold et al., 2017; Muralidharan et al., 2017). Better monitoring structures could reduce inefficiency significantly, yielding higher returns to public spending than just increasing the money spent given current systems (Muralidharan et al., 2017). To improve these aspects of in-kind transfers, service delivery at both the national and subnational level must be considered, since a significant proportion of health and education spending is executed at the subnational level (Davies et al., 2021).

## 6 Implications and lessons for addressing income inequality through fiscal policy

**Evidence presented in this report suggests that policy-makers can take several key steps to enhance fiscal policy to reduce income inequality and poverty even in the context of negative economic shocks and difficult institutional and political challenges.** The Covid-19 pandemic has left many countries, particularly lower-income countries, highly fiscally constrained. These countries will therefore need to expand fiscal capacity overall, through economic growth and strategic domestic revenue mobilisation, where possible, to create space to increase spending on social protection and social sectors, ensuring a more sustainable and equitable recovery. There are also many areas for improvement in existing national fiscal policy. This section presents practical policy options, based on the evidence discussed in the previous sections, for enhancing the impact of fiscal policy on income inequality and how these options might be applied in different contexts, with a specific focus on lower-income countries.

### 6.1 Implications for tax and revenue mobilisation

Based on the evidence presented in the previous sections, each tax instrument has a different potential impact on inequality and other outcomes, such as poverty and economic efficiency. These are summarised in Appendix 2 and discussed below, including how they can be designed to enhance their impact on inequality.

**Our analysis suggests that, while personal income taxes are the most progressive taxes even in lower-income countries**

**and can be equalising, there is space to improve progressivity and ensure they are not impoverishing.** The overall scope for redistribution through employment income tax in lower-income countries needs to be broadened. This may happen as the economy expands and employment shifts to enterprises that are larger, more formal registered businesses, or as administrative capacity improves. Evidence suggests that income taxes can still be poverty-increasing in contexts where the basic income exemption threshold is set too low and individuals below or around the poverty line are liable to pay income taxes. In addition, progressivity at the top of the distribution has diminished as top marginal rates have decreased in the last three decades. Options for reform therefore include raising top marginal rates, adjusting basic rate tax bands to reflect poverty levels (and inflation) and broadening or strengthening property taxes. Gupta and Tovar Jalles (2022) find that reforms to PIT and tax administration can decrease income inequality in a sample of 45 countries, except for countries in SSA, suggesting that both policy design details and implementation and administration are crucial.

**The role of corporate income tax should also be more widely recognised, particularly as a backstop to prevent personal income tax avoidance by rich individuals. This suggests the need to ensure rates are not reduced further, creating incentives to shift income sources from employment to business or capital.** CIT accounts for a significant portion of revenues for LICs and MICs, despite international tax competition and inefficient collection



compared to higher-income countries. Global tax reforms being developed under the OECD Inclusive Framework aim to address some of the challenges of taxing the digital economy and international tax competition.<sup>84</sup> Since tax competition and tax avoidance will likely still continue, lower-income countries will need to continue to invest resources and build capacity to tackle international tax avoidance (Steel and Nair, 2021). Further research and consideration of wealth taxes is also needed, particularly in light of increasing wealth concentration and the known implementation challenges due to inherent difficulties associated with asset valuation and high levels of evasion, which may be particularly acute in lower-income countries in the context of globalisation and weak tax administration.

**General consumption taxes that have often been claimed to be regressive and poverty-increasing may be more progressive in highly informal economies and, in most contexts, provide an efficient tool to raise revenues to finance progressive and pro-poor spending.**

Given the reduced importance of direct taxes in practice relative to indirect taxes in lower-income countries, some experts have argued that, in these countries, redistribution and poverty alleviation should be pursued using spending rather than taxation (Bird and Zolt, 2005; Hirvonen et al., 2018). Revenues can therefore be used to fund equalising and pro-poor spending that more than compensates for any negative impact of such taxes. As such, it is important to assess the net impact of consumption taxes when combined with spending.

**Broadening the tax base through the removal of VAT exemptions and differential rates is recommended when cash transfer systems are available.**

Exemptions and reduced tax rates are inefficient ways of addressing poverty and income inequality outcomes, since revenue foregone from richer households is substantial and creates distortions to production, investment and consumption choices. In contexts where lower-income households purchase most of their products from informal markets not operating within the VAT system, providing VAT exemptions and differential rates, for example for foodstuffs, is not justifiable on equality grounds.

**Excise duties have the potential to be both equitable and efficient. For example, in lower-income countries environmental taxes are often progressive and can be designed to be revenue-raising while addressing harmful externalities.**

The distributional impact of excise duties varies by product and context. As with tax exemptions, discussed above, any impoverishing or regressive impacts can be addressed through cash transfers, where possible, which can potentially be financed by the revenue raised from excise duties. Environmental taxes, such as taxes on fossil fuels, taxes on carbon emissions, motor vehicle use and ownership, or other unsustainable environmental practices, can be designed to improve efficiency by tackling harmful externalities, and in lower-income countries are also progressive. ‘Sin’ taxes, such as on tobacco, sugar and alcoholic beverages, are usually

<sup>84</sup> The proposals, signed by 132 countries, include new taxing rights over the largest multinationals regardless of physical presence and a global minimum rate tax of 15%. These reforms represent a significant step forward, but with limitations. The minimum tax will likely provide a direct benefit to high-income countries where multinationals are resident, but for lower-income countries benefits will depend on multinationals taking action to reduce tax avoidance and may require taxing rights to be extended to more companies and a higher minimum tax rate.



regressive, but have long-run health benefits that may outweigh the initial regressive impact on income.

**The impact of trade taxes on inequality is often overlooked and more research is needed but, in principle, the policy implications are similar to domestic consumption taxes.**

The distributional impact of duties on imports typically depends on the tariff structure and consumption patterns across the income distribution. If uniform, like domestic consumption tax, it is an efficient source of revenue but likely to be regressive and poverty-increasing. For addressing inequality, these effects may need to be mitigated through equitable transfers, which can also replace inefficient customs duty waivers that may already be in place to protect the poor.

**The most urgent need framing governments' tax policy choices in many lower-income countries is revenue mobilisation, but there is a (wrongly) perceived trade-off with equity.**

How taxes are designed and raised, and hence who bears the burden of additional taxes, will matter for inequality. In practice, there is a tendency for revenue efforts, particularly among African revenue authorities, to focus on expanding registration of the informal sector. This emphasis on informal sector taxation is seen as a 'missing goldmine' but needs to be further qualified. If this group comprises mostly low-income earners or microenterprises that face high compliance costs and low revenue potential, the effort may fail to raise significant revenue while running the risk of shifting fiscal burdens onto the most vulnerable groups by an often unfair over-estimation of the income of informal sector workers and firms,

and an under-estimation of the level of taxes they already pay (Gallien et al., 2021). Revenue mobilisation reforms thus need to feature measures that address the greatest revenue risks and unmet revenue potential, while considering distributional impacts to promote inclusive growth (Long and Miller, 2017).<sup>85</sup> Modern, efficient policies and administrative measures should therefore be designed to address specific types of (potential) taxpayers and their (non-)compliance, while achieving desired equity and efficiency goals, rather than reducing the informal sector per se, which in itself is neither bad nor good (Kanbur and Keen, 2014; 2015).

**How much unmet revenue potential there is in lower-income countries may be overestimated, and bridging this gap is very challenging.**

There is a body of literature that studies tax potential, tax 'effort' and tax 'gaps', concepts used by policy advisors and technical assistance experts. While these estimates broadly confirm the existence of administrative inefficiencies, non-compliance and gaps in the tax base (that may or may not be possible to adjust), they are highly dependent on the sample of countries studied and the model specification (McNabb et al., 2021). Their value to policy formulation is also debatable since the implications for specific reforms are often not discernible from the typically highly aggregated estimates contained in tax effort and tax gap studies. Some countries may have potential to improve tax design, administration and compliance along specific margins depending on their current situation, which in turn depends on institutional arrangements, corruption and other moral behaviours in each country, which could also be modified (Bird, 2008). Experience

<sup>85</sup> Inclusive growth can be defined as 'economic growth that is distributed fairly across society and creates opportunities for all' (OECD webpage accessed via this link).

from past tax reform programmes suggests that progress in these areas is possible, but often slower than expected.<sup>86</sup>

**For most countries, raising taxes may initially need to be targeted and/or temporary to support economic recovery.**

Fiscal space for social protection and redistribution has been constrained further due to the economic impact of the Covid-19 pandemic. To avoid depressing demand at a time of economic recovery, increases in (progressive) direct taxation rather than general consumption taxes are recommended (Prinz et al., 2021). Other options that target ability to pay and pockets of wealth (or windfalls from the pandemic) could include one-off wealth taxes or solidarity levies for profitable sectors, the temporary aspect of which minimises any depressing or distorting effect on investment. Over the longer term, revenue measures that are in line with wider economic objectives, such as equity and green recovery, would be appropriate, as already discussed. These may include the introduction and expansion of environmental taxes, sin taxes and property taxes, and measures to broaden the tax base, such as rationalising tax expenditures and improving administrative efficiency and compliance.

**Natural resource revenues may provide significant potential sources of finance for resource-rich countries but may pose risks to equity and environmental sustainability.**

Countries with significant revenue potential from (or dependence on) natural resource revenues may need to review the fiscal rules or frameworks governing how revenues are spent (or invested) to better understand and optimise the impact on

income inequality. For those commodities that are experiencing higher prices/profits, countries could consider a one-off windfall tax to help pay for redistributive spending (such as the UK's recent petroleum windfall tax) or to help finance a green transition. More research and analysis is needed to understand the revenue implications of carbon and other environmental taxes to help countries transition from fossil fuels (in the short to medium term) towards renewable energy (longer-term) for countries that are currently dependent on revenue from producing fossil fuels or from natural resources that might use fossil fuel-intensive processes.

## 6.2 Implications for social spending

Based on the evidence presented in the previous sections, each spending instrument has a different potential impact on inequality and other outcomes, such as poverty and efficiency. These are summarised in the matrix in Appendix 2, including practical options for reform to enhance their effectiveness on inequality.

**The net impact of social spending on income inequality and poverty depends on its scale, composition, the design of specific schemes, their progressivity and the way schemes are funded.**

In lower-income countries, social spending is lower than in richer countries and hence its impact on poverty and income inequality is more limited, but there is scope to expand it and improve its effectiveness through better design and quality.

**Emerging lessons suggest that income inequality and poverty can be reduced**

<sup>86</sup> As reported by, for example, Fjeldstad and Therkildsen (2020), who estimated that countries receiving assistance from Denmark showed a 0.1-0.2 percentage point per annum increase in the tax-to-GDP ratio on average between 1987 and 2018.

### **through enhancing cash and in-kind transfers and reducing indirect subsidies.**

Cash and in-kind transfers are found to be mostly equalising and poverty-reducing (although not always pro-poor) and account for most of the income redistribution achieved through fiscal policy. While in-kind transfers are not typically provided to address income inequality directly, they do have a significant impact, particularly where quality of services is addressed as well as overall funding levels. Indirect transfers (subsidies) are harder to target efficiently and support over-consumption of goods and services that can be harmful, so could be removed and used to finance better-targeted direct or in-kind transfers. Since subsidies are often provided to protect poorer households from higher prices, removing them may be highly unpopular. Reform that includes a compensating transfer can help build public support. It may be possible to design a revenue-neutral reform that reallocates revenues recouped

from the removal of subsidies to finance a targeted cash transfer. A universal cash transfer (even if temporary) to compensate all households could potentially garner even greater public buy-in. In practice, however, few countries have implemented such a reform and there are likely to be difficult policy choices between universality, adequacy and revenue neutrality to achieve the greatest impact within available resources (see Box 1).

**The effectiveness of cash transfers depends on coverage and adequacy. In HICs, the priority for improvements seems to be around the sustainability of pensions, as well as responding to shocks such as the pandemic and the current cost of living crisis.** In HICs, which already combine means-targeting and broad social insurance schemes, switching to universal transfers may not be cost-effective unless there is a specific interest in

### **Box 1 The universal cash transfer programme in Iran**

Iran introduced a nationwide universal cash transfer through the Targeted Subsidies Reform from 2010 to 2014, which was aimed at compensating households for the anticipated increase in energy prices due to the elimination of energy subsidies. It was originally financed with the public funds saved through the reduction of these subsidies (Guillaume et al., 2011). It had an initial take-up of 95% and, while it was successful at reducing poverty and inequality significantly, it did not reduce the fiscal burden or remain revenue neutral (Enami et al., 2019). In 2014, due to the fiscal cost exceeding the revenue gains from eliminating subsidies, the government attempted to exclude individuals in the top 20% of the income distribution. In practice, only a few individuals were successfully excluded from claiming the transfer. Inflation eroded the value of the transfer to around half its original value, which reduced its impact on poverty over time (Enami and Lustig, 2018; Enami et al., 2019). Enami et al. (2019) recommended a revenue-neutral reform to further improve targeting, progressivity and poverty alleviation by focusing on the bottom 60% of the population and increasing the amount of the transfer. This example illustrates the kind of difficult trade-offs involved in implementing a UBI, and the relative benefits of targeted, more generous (or at least adequate) cash transfers to achieve poverty and equity objectives.

providing a UBI to address widespread threats to traditional employment, such as automation, or temporary support in response to a major negative shock, such as during a pandemic. There is still potential to improve the effectiveness of existing systems, such as by ensuring that pensions are financially sustainable and account for changing trends in the way work is organised.

**In LICs, the main issue is expanding coverage of social protection, yet universalism is still unlikely to be achievable in the near future and financing options are expected to fall short, prompting calls for more targeting of transfers (IMF, 2021a).** The net benefits of UBIs or universal social floors vary from country to country, and for many lower-income countries they will be too costly until fiscal capacity expands. As discussed in Section 5, there are few practical applications of a UBI in practice, and evidence from simulations indicates that, where budgets are fixed and limited, a more targeted system that can provide adequate coverage for the most vulnerable may be more effective than a UBI.

**While both targeted and universal approaches have disadvantages, a mix of complementary approaches designed to mitigate the risks offers a continuum of options in-between.** For example, means-tested disincentive effects and administrative costs may be improved through lump-sum payments rather than regular amounts, giving entitlement for longer periods regardless of changing circumstances, or by simplifying the test criteria. Alternatively, universal systems with inclusion error (or recipients deemed ‘undeserving’) can incorporate claw-back from richer individuals through the tax system. Categorical transfers that have wide inclusion or exclusion errors could be evaluated and adapted to improve administrative effectiveness.

**Data-driven approaches to categorical targeting may provide a more affordable approach to working towards more adequate coverage incrementally as fiscal capacity expands.** Studies such as Evans (2021) suggest that universal and targeted transfers are not incompatible, but that identifying categorical groups at risk allows a more adequate (non-means-tested) transfer to support the worst-affected groups (e.g. households with elderly, children, geographic concentrations) first, before rolling out to others in a move towards a more comprehensive system as fiscal resources expand. Evans argues that universal transfers become diluted as they filter to indirect beneficiaries who reside with the direct beneficiaries. This can be mitigated by ‘finding smaller sub-groups who have higher levels of “need” in terms of poverty risk and who can be prioritised in any national roll out of a social protection strategy’. Some countries are expanding coverage incrementally starting with targeting based on greatest need, as in Nepal, where child benefits were first offered to child populations defined by caste and geography (those most likely to be living in poverty) before being rolled out to richer households. This contrasts with Mongolia’s large-scale child benefit scheme, which had to be withdrawn due to fiscal unsustainability (Evans, 2021).

**There are several considerations that may determine where on the continuum a country may find the most cost-effective design mix of social spending programmes.** Countries first need to clarify their most important aims in respect of inequality and poverty reduction, or welfare improvement, so that programmes can be designed to achieve those aims most effectively. The choice of design may then depend on factors such as administrative and institutional capacity to design, implement and evaluate more or less complex programmes, including data availability

and accuracy and delivery infrastructure. The effectiveness of the design and implementation can be assessed through measures such as inclusion and exclusion error, to compare options either ex-ante or ex-post.

**The most equitable social spending programmes will likely be funded (at least partly) through a combination of contributory social insurance and tax-funded non-contributory transfers.**

While social insurance schemes may not be designed to address income inequality (but, rather, lifetime income smoothing or income protection), those that combine proportional contributory programmes with non-contributory components tend to be more equalising. In non-HICs, with weaker safety nets provided by non-contributory cash transfers and contributory social insurance, there is a need to expand both (as fiscal space expands). With limited resources, programmes can be (re)designed to focus on a mix of poverty-targeted and categorical non-contributory transfers for those outside of contributory schemes, depending on the most urgent needs and vulnerabilities of the population and administrative or institutional capacities.

**Other financial contributions may come from revenue reforms and removing inefficient subsidies as well as ODA, and creating fiscal and budgetary space through better service delivery and use of available technology.**

To finance a transition to more comprehensive social protection that initially covers groups faced with specific risks, a process to rethink existing policies that are ineffective or creating perverse incentives is needed. Risks such as health, income and employment shocks could be identified and addressed first, for example, rather than entrenching dependence on formal versus informal employment. The challenges posed by

perverse incentives will need to be addressed through evaluation and improved design. Policymakers often struggle to cost and finance social protection needs, rendering strategies unimplementable (Evans, 2021). Further research and analysis to identify categorical risks of poverty and vulnerability is therefore needed to provide more country-specific estimates of need and cost of coverage to inform budget planning for the effective delivery of such strategies.

## 7 Conclusions

**Fiscal policy can have an important impact on inequality, as demonstrated by evidence from distributional impact studies.** The greatest impact on inequality has been in HICs and UMICs in which fiscal capacity is high and there is a broad tax base. In these countries, social safety nets and flexible tax policy played a key role in enabling a quicker recovery from the Covid-19 pandemic and in some cases partially mitigated further poverty and inequality. This experience highlighted the need for fiscal systems to both be redistributive over the lifecycle as well as to build resilience to support vulnerabilities during shocks.

**While lower-income countries are constrained in their fiscal capacity, the combination and design of fiscal policies can be optimised to improve income inequality and poverty outcomes within fixed budgets.**

If poverty reduction is imperative, then removing poorly targeted indirect subsidies to finance targeted pro-poor transfers may be more appropriate. Inequality-reducing policies combine the above, plus an expansion of contributory (and non-contributory) social insurance, financed through more progressive contributions, income tax and removing subsidies to broaden consumption tax. Many countries are focused on economic recovery, growth and revenue mobilisation. There is no evidence to suggest that this should preclude equitable fiscal policies. In fact, they can be growth-reinforcing.

**With limited resources and as fiscal capacity expands, optimising the impact on inequality**

**means policy options need to be quantified to best inform decisions.** While increasing, academic studies are still scarce and there remains a disconnect between the academic literature on distributional analysis and the practice of policy-making.<sup>87</sup> Since distributional analysis often relies on complex econometric or microsimulation models, and accurate and comprehensive data, take-up among policy-makers is limited (Grote, 2017), including in HICs (Wales and Wales, 2012). Sharing lessons from tested approaches, guides and tools that can be applied across a wider range of country contexts,<sup>88</sup> alongside tax policy analysis, capacity-building and better collaborations between policy-makers and academic communities would be particularly beneficial.

**A whole-of-government approach can help optimise limited resources and make best use of existing technology and institutional solutions.** Technology and institutional solutions already exist to enable improvements to the equity of fiscal systems. Understanding and addressing constraints on the introduction and expansion of cash transfer systems may also help unlock previously difficult tax reforms. Governments need to bring together spending, tax, social and economic policy to think about the fiscal system as a whole, and how it can best be used to deliver more inclusive growth and equitable outcomes.

**In the face of difficult choices and trade-offs, a well-designed package may provide a positive outcome for an inclusive economic recovery.** With economic recovery challenges,

87 Based on experience from UKAID's Centre for Tax Analysis in Developing Countries (TaxDev) programme, including UKAID (2018) and Wales and Lees (2020).

88 Such as Granger et al. (2021).

rising prices, and increasing economic and political instability, there are no easy choices. In some countries the political commitment to improving equality may have gained momentum in the aftermath of Covid-19, whereas in others the reality of addressing inequality, such as tax rises and removing poorly targeted indirect subsidies, depends on the power dynamics between elites and the state and how effective governments have been in building trust throughout the crisis. Delivering difficult reforms in practice will require support and dialogue between government, citizens and partners to understand how the challenges and trade-offs can best be overcome.



# Appendix 1 Measuring income, income inequality and the effect of taxes and social spending

The impact of fiscal policy on income distribution can be estimated using basic fiscal incidence analysis, which can be disaggregated by different sub-components of the fiscal system (fiscal instruments). To do this, we need to:

1. measure household income before taxes and social spending (the chosen welfare indicator) and order individuals/households according to this measure
2. compute the incidence of taxes and social expenditure on households and individuals.
3. study the distribution of the tax burden and the benefits from social spending on households according to the ranking of households or individuals using the chosen welfare indicator.

Our analysis draws from existing fiscal incidence methods and evidence from Lustig (2018) and Alvarado et al. (2018), which are the main available data sources we used on income inequality and poverty across different income groups.

## A.1. Common measures of household and individual income and their distribution

**The primary unit of analysis is the household or individual. The welfare indicator utilised is usually income**, which is the sum of all personal

earned and unearned income flows accruing to households or individuals, before considering the operation of the pension, unemployment insurance and other insurance systems, before taxes and before transfers in cash and in-kind. If it is a measure at the household level, adjustments for size and composition of households' members (equivalence scales) are usually used to get a comparable measure of welfare across households that can be used for the ranking.

**In many LICs, comparable measures based on consumption spending and the value of the consumption of own produce are used as the relevant welfare indicator to rank households**, since quality and reliable measures of income sources are not available and because own produce consumption is more prevalent and important when measuring welfare.

**Traditionally, the most commonly used measure to capture income distribution across households or individuals is the Gini coefficient.** The Gini coefficient allows comparisons of inequality across time and geographical space, provided that the underlying income measure is also constructed in a comparable way. It has a range between 0% and 100% (or 0–1) and captures the entire income distribution of a reference population. The closer

the coefficient is to 100%, the higher the income inequality across the population.<sup>89</sup> However, it is quite an abstract measure that can be difficult to interpret. It is also important to note that changes in Gini coefficients are not necessarily associated with a decrease in absolute poverty.<sup>90</sup>

**Measures of income shares accruing to the top and bottom of the income distribution are increasingly being used to describe inequality within countries** (e.g. Piketty, 2014).

Depending on the nature of inequality that is of concern, the Gini coefficient may hide important implications, which can be revealed by looking at the income accruing to the top and bottom shares of the population. For example, the Gini coefficient can decrease (indicating greater equality overall) even if the income accruing to the top 1% of the population (ranked by income) is increasing and/or the income accruing to the bottom 50% is decreasing. The Gini coefficient and measures by income share are scale-independent: if relative incomes do not change even if the rich get, for example, a larger absolute gain, these inequality measures do not change. While most fiscal incidence analysis uses the Gini coefficient, in this report we use both measures to provide a more complete picture of inequality trends.

## A.2. Measuring the distributional effect of tax and social spending on income

**Most of the evidence discussed in this report comes from detailed country-level studies**

**of the effects of tax and social spending on income inequality and poverty at a point in time, based on basic fiscal incidence and distributional analysis.** These studies combine a range of methodologies including microeconomic simulation using several economic assumptions. These are static models based on household income and expenditure survey data, administrative and national account information, fiscal policy details, incidence assumptions and allocation rules. These elements enable modelling of the redistribution and poverty effects of current tax and transfer policies at a point in time, and an assessment of the potential impact of proposed tax and transfer policy changes. They cannot model the impact of fiscal policies over the lifetime of individuals, and hence do not consider intertemporal effects. Other limitations include the way allocation of in-kind transfers is done, which is based on average provision of the cost of education or health services based on observed usage or demographics, rather than their monetary valuation by households, which would also consider their quality and the monetary returns to that spending (see, for instance, O’Dea and Preston, 2010; Barofsky and Younger, 2019; Soares, 2019).

**This methodology is useful to consider short-term (or first-order) effects of fiscal policies since it does not consider general equilibrium effects, or how households or individuals may change their behaviour in response to these policy changes.** For a more detailed discussion of these methodologies,

89 A Gini coefficient of zero is achieved when incomes are perfectly equally distributed across the population. In contrast, a Gini coefficient of 1% or 100% means only one person has all the income and the rest have zero.

90 There are other measures of inequality that combine information about the income shares accruing to different deciles or percentiles of the population. One measure developed recently is the Palma ratio, which is the ratio between the share of total income accruing to the richest 10% of the population and the share accruing to the poorest 40%.

recent developments, and limitations, see Abramovsky and Phillips (2015); Bastagli (2015; 2016); Lustig (ed.) (2018); Decoster et al. (2020).

### To capture the impact of different components of the system of taxes and

**social spending, various income concepts are constructed using basic fiscal incidence methodologies alongside measures of income distribution and inequality<sup>91</sup>**

(summarised in Table 4).

**Table 4** Components of fiscal incidence analysis to estimate impact of fiscal policy instruments on income and its distribution

Sub-component (instrument) measured	Income concepts: <i>Income adjusted for effect of each instrument and resulting inequality measures (Gini coefficient or other)</i>
<b>Baseline:</b> inequality before fiscal policy	Market income (1)
<b>Social insurance:</b> incidence of pension contributions and benefits, unemployment benefit, etc.	Pre-tax income (2) [(1) + social insurance contributions and benefits]
<b>Direct taxes and transfers:</b> incidence of direct taxes and (cash and near-cash) transfers	Disposable income (3) [(2) + direct taxes and transfers]
<b>Indirect taxes and subsidies:</b> incidence of indirect tax paid net of indirect subsidies	Consumable income (4) [(3) + indirect taxes and subsidies]
<b>In-kind transfers:</b> incidence of education and health in-kind transfers	Final income (5) [(4) + in-kind transfers: education and health]
Overall fiscal impact on income distribution	Overall change in measures (1)-(5)

### In practice the data available on income inequality across countries uses a mix of income measures and resulting inequality measures.

Pre-tax income is the benchmark income concept used by World Inequality Data (WID). It includes social insurance benefits (adjusted for corresponding contributions) but excludes other forms of fiscal redistribution (income tax, non-contributory cash transfers,

etc.). We use pre-tax income<sup>92</sup> in Section 4 (income inequality trends), since it is the only comparable income measure available for all countries over a long period of time to provide a picture of long-term trends in income inequality before fiscal redistribution. If social insurance contributions paid by the public sector and the resulting benefits are considered private (mandatory) savings and returns to those

91 We follow Lustig (2018) and Alvarado et al. (2018), which are the main data sources used in this report to look at income inequality and poverty.

92 The specific variable we use in Section 4 refers to the population of adults over the age of 20 and the income has been distributed equally among all household members (equal-split adults, corresponds to the variable gptinc992j).

savings, this pre-tax income measure is closer to a pre-fiscal measure. However, social insurance contributions are often used to finance non-contributory schemes and general taxes are used to finance contributory schemes (see, for instance, Palacios and Rabalino, 2020). The cross-country analysis in Section 6 (fiscal policy impacts on income distribution) compares inequality measures based on market income with measures based on disposable income, consumable income or final income. In doing so, it treats social insurance contributions and benefits like direct taxes and transfers and considers their effect combined.

**It is also important to analyse the impact of the fiscal system on both income inequality and poverty, since fiscal systems can be equalising but poverty-increasing.**

A potentially regressive tax that is efficient at raising revenues (e.g. VAT) can be combined with well-targeted transfers to the poor and result in a decrease in income inequality and poverty (see, inter alia, Lustig, 2018; Warwick et al., 2018). A fiscal system can reduce income inequality and poverty, but nonetheless still impoverish a substantial number of people.

**To describe the range of effects on inequality and poverty, we use several terms:**

- **Equalising (unequalising):** a (set of) fiscal instrument(s) decreases (increases) the concentration of income, having a positive (negative) redistributive effect.
- **Progressive (regressive) taxes in relative terms:** the share of taxes in market income increases (decreases) with the level of market income.
- **Progressive (regressive) taxes in absolute terms:** the absolute amount of taxes paid increases (decreases) with the level of market income.
- **Poverty-reducing (-increasing):** a (set of) fiscal instrument(s) decreases (increases) the poverty headcount ratio, which is usually defined in relation to an absolute poverty line in terms of income.
- **Pro-poor transfers/social spending:** the value of the transfer decreases with the level of income (also called progressive transfers in absolute terms).
- **Progressive transfers/social spending:** the ratio between transfers and income decreases with income.

### A.3. Data sources

**The availability of data and how it is used to measure income and wealth inequality has progressed significantly in the last decade, but may still result in inequality being underestimated and there remain important gaps in the evidence from lower-income countries.** Several new datasets provide comparable cross-country measures of Gini coefficients and income shares over time, and a better coverage of lower income countries has been achieved, although gaps remain (Jänti et al., 2020). These datasets use different

methodologies to combine different sources of data<sup>93</sup> and their uses and drawbacks are discussed further below.

Throughout the report we use a variety of data sources, which we describe below. As mentioned in Section 2, we used the World Bank Income Country group classification from 2020.

### A.3.1 Income inequality and fiscal redistribution

**The most common source of data used in inequality datasets is household surveys, which typically capture incomes and consumption of individuals. Household surveys have limitations since the income of the wealthiest and poorest is often imperfectly captured, particularly income from capital accruing to the top of the distribution. This is better adjusted for in HICs since they have better supplementary administrative and third-party data.**

Inequality measures based on these household surveys, particularly those based on consumption expenditure, are therefore likely to underestimate the income of the top of the distribution and hence the level of inequality and potentially also its evolution over time (Lakner, 2016). In many countries, particularly HICs, information from

surveys is supplemented with data from tax records and other administrative and third-party data to provide a better picture of income at the extremes of the income distribution. Nonetheless, the richest segments of the population have ways of concealing wealth and incomes even from administrative bodies. This means that the figures are likely to provide a lower bound on inequality. In LICs less supplementary data is available, so the figures are likely to be even less accurate and underestimate inequality to a larger extent.

**A.3.1.1 Trends in pre-tax income inequality We use the data from the World Inequality Dataset (WID). The database contains measures of pre-tax income at the individual level that are consistent across countries and that go back in time.**

This is presented in Section 3. The data we use covers the period 1980–2019, which gives the most comprehensive coverage across countries. Data in 2019 covers 167 countries: 48 HICs, 48 UMICs, 41 LMICs and 30 LICs (of which 24 are in sub-Saharan Africa). Ideally, we would have also liked to present trends in inequality in market income at the household level over time, but available data from other sources (like the OECD or CEQ) does not cover the same range of countries (the OECD covers over 40 mostly high-income and middle-income

93 There are several comprehensive datasets. The World Bank's PovcalNet provides measures of Gini coefficients for disposable income based on household surveys that cover income for some countries and consumption for others. The World Income Inequality Database (WIID), developed by UNU-WIDER, combines measures from PovcalNet, the OECD and other sources to provide inequality measures for disposable income. The Standardized World Income Inequality Dataset (SWIID) provides a unified dataset on inequality measures using indicators developed by PovcalNet, OECD and others. Another example is the World Inequality Lab Database (WID) initiative, which provides different inequality measures for income and wealth. This dataset combines micro-level data, national accounts and administrative sources depending on the country and provides measures for 'pre-tax income' and disposable income ('post-tax income'). The latest version of the data covered in 2019 at least some measure of income inequality for 169 countries: 29 LICs, 41 LMICs, 48 UMICs and 51 HICs. Of the LICs, 23 are in sub-Saharan Africa. We use WID to look at trends in pre-tax income inequality over time across countries.

countries)<sup>94</sup> or repeated measures over time (CEQ covers 47 countries across income country groups, but at a point in time).

**WID’s methodology is based on the distributional national accounts (DINA) approach and combines rich sources of micro-level household survey and administrative data with national accounts figures.** In countries where measuring income is challenging and consumption is often used as a measure of welfare, such as in African countries, the methodology uses as a starting point a measure of consumption from household surveys (Chancel et al., 2019).

**The specific pre-tax income variable used refers to the population of adults over the age of 20.** To build this variable, income has been distributed equally among all household members.<sup>95</sup> The WID has several variables of pre-tax income, but this one has been chosen since it is the only Gini coefficient measure for pre-tax income that is available in the WID for all countries.

**Pre-tax income measures capture some redistribution through the fiscal system via social insurance but before tax and social spending** (as discussed above and in Table 4). This mechanism plays a significant role in fiscal redistribution in HICs and UMICs, but less so in LMICs and LICs, so there may be differences in the

ranking of countries using this measure of pre-tax income at the individual level versus measures of market income at the household level. We describe the data covering different measures of income at the household level below.

**A.3.1.2 Evidence on fiscal redistribution**  
**Several recent studies and multi-country efforts assess the basic incidence (or simulate the combined and individual impact) of taxes and social spending on households and individuals across MICs and LICs using a common framework, with increasingly sophisticated and user-friendly tools.**<sup>96</sup> Initially, most incidence analysis studies focused on the impact of direct taxes (personal income tax and social security contributions) and cash transfers. More recently, these have been expanded to include indirect taxes (consumption taxes such as VAT and excise duties) and subsidies (fuel or price subsidies), and spending (mostly education and health). This is a very welcome development since indirect taxation and in-kind transfers are important fiscal policy instruments in LMICs, compared to HICs, as discussed in Section 4. Several studies only assess direct taxes and cash transfers (and social insurance contributions and benefits) since indirect taxes and in-kind transfers are more difficult to model. Furthermore, most models have predominantly (although not exclusively) focused on fiscal instruments

94 <https://data.oecd.org/inequality/income-inequality.htm>

95 This corresponds to the variable gptinc992j.

96 Several cross-country initiatives exist in addition to CEQ. UNU-Wider, in collaboration with ISER (Essex University, UK), has launched the SOUTHMOD initiative that adapts the EUROMOD microsimulation model, encompassing direct income tax and cash transfers for European countries, to 10 countries in the Global South, mostly in Africa. Some of these models have recently been extended to include indirect taxes as well (Decoster et al., 2020). The Centre for Tax Analysis in Developing Countries (TaxDev), led by the Institute for Fiscal Studies and the ODI, has also developed tax and transfer microsimulation tools and distributional analyses of fiscal policies in several developing countries in both Latin America and Africa. These studies model direct tax and cash transfers and indirect taxes.

administered by central governments, rather than subnational ones or informal systems of public goods and insurance provision.

**Most cross-country comparisons use data from the OECD and CEQ.**<sup>97</sup> CEQ covers 47 countries from different country income groups at a point in time. We use the latest available study for each country where possible. The analysis uses the same methodology across countries as far as possible, and models a broad range of taxes (both direct and indirect) and transfers (both in cash and in-kind). Few countries have results spanning several years, however, such that one could see the evolution over time within countries using this resource. This data is supplemented with statistics from the OECD Income Inequality Dataset, which covers market and disposable income measures for countries not covered by CEQ.<sup>98,99</sup>

### A.3.2 The levels and composition of tax revenues and social spending

#### A.3.2.1 Revenue as a share of GDP

We use total government revenue (excluding grants), tax revenue and social contribution revenue data as a share of GDP from the UNU-WIDER GDR dataset. This comprises an unbalanced sample of countries from all country income groups: 100 countries in 1990 and over 131 countries in 2018.

#### A.3.2.2 Social spending as a share of GDP

##### We use IFPRI's Statistics on Public Expenditures for Economic Development (SPEED) 2020 dataset for the public expenditure information

(IFPRI, 2019). It includes data on public expenditures across 166 countries in 11 sectors, including social protection, education and health expenditure. While IFPRI is arguably one of the more consistent sources of public expenditure data, some issues persist. For instance, we had to drop Zimbabwe from this analysis due to inconsistent estimates. Data on social protection coverage is from the ILO World Social Protection Database, based on the ILO Social Security Inquiry questionnaire.

97 <https://commitmenttoequity.org>, data accessed on 14 June 2021.

98 <https://data.oecd.org/inequality/income-inequality.htm>.

99 We chose not to use the World Income Inequality Dataset from UNU-WIDER (<https://www.wider.unu.edu/database/world-income-inequality-database-wiid>). This is because, according to our understanding, at the time of initiating the analysis for this report in early 2021 it had information on income inequality for over 200 countries over time for different inequality measures (Gini coefficient, income shares, etc.) for one measure of income as reported by household surveys, so not necessarily showing income both before and after taxes and transfers in cash and in kind.



## Appendix 2 Matrix of fiscal policy instruments and design considerations

Fiscal policy instrument	Impact on poverty and inequality	Revenue, efficiency and other impacts	Design and reform considerations for income inequality
<b>Taxes</b>			
<b>Personal income tax (PIT) and national insurance contributions (NICs)</b>	<p>Broadly progressive and equalising; they are usually designed to be progressive and equalising and account for most of the redistribution achieved through taxes on average across countries</p> <p>Direct impact on income distribution, but scale of impact varies according to size of tax base (affected by informality, exemptions), rate structure and compliance; impoverishing effects if very low income levels are liable for tax</p> <p>PIT tends to be the most progressive tax, but NICs vary from regressive to progressive</p>	<p>Generally significant but not main source of revenue.</p> <p>Potential incentive effects on:</p> <ul style="list-style-type: none"> <li>• marginal labour supply decisions</li> <li>• innovation (top marginal rates)</li> <li>• employment and employee compensation</li> </ul> <p>Evidence is mixed on relationship between progressivity and the level of top marginal rates and economic growth</p>	<p>Evidence suggests scope to improve progressivity and revenue, in particular:</p> <ul style="list-style-type: none"> <li>• ensure a stepwise rising PIT rate schedule</li> <li>• consider raising top marginal rates</li> <li>• adjust PIT threshold so that it is above poverty line, but not so high that number of taxpayers in the system is too small</li> <li>• adjust bands for inflation and poverty protection</li> <li>• review regressive tax relief (related to children, education, health insurance) and consider more progressive ones like tax credits</li> <li>• equalise tax rates across sources of income, particularly across capital income from different types of investment</li> <li>• address compliance and administrative challenges</li> </ul>

<p><b>Corporate income tax (CIT)</b></p>	<p>Evidence on its impact on progressivity is inconclusive in contexts with capital mobility and depends on a range of factors, including who bears the burden of the tax</p> <p>When considered as a backstop to PIT, it helps prevent avoidance by higher-income individuals and entrepreneurs, when CIT and PIT rates are aligned, and hence can be progressive</p>	<p>Generally significant but not main source of revenue</p> <p>Often design does not treat uniformly different types of investment, and taxes the normal rate of return (not only rents). This is detrimental to economic growth</p> <p>Although trend towards lower rates, driven by international tax competition to attract mobile firms, there is mixed evidence on CIT rates and economic growth</p>	<p>Scope to better align with PIT (or prevent further rate cuts/allowances) to ensure CIT prevents PIT avoidance and hence enhance progressivity of the tax system</p> <p>Support international efforts to coordinate across countries and ensure corporations pay their fair share of tax by preventing abuse by high-income individuals and multinational enterprises through tax planning and profit shifting. The establishment of the Global Minimum Corporate Tax is a step in the right direction</p>
<p><b>Immovable property tax</b></p>	<p>Can be progressive or regressive, depending on tax base definition, distribution of property by income and tax structure</p> <p>More progressive structures are based on property values (rather than size/quantity) and mitigate impoverishing effects by providing relief to lower-income households</p>	<p>Typically used to collect revenue for local service provision</p> <p>Generally important but relatively small share of revenue, albeit considered under-used in LICs</p> <p>Can incentivise more productive use of land and property, but can distort investment decisions between property versus other assets</p>	<p>Ensure rate structure and tax base is broadly progressive</p> <p>Consider relief for the poorest and mechanisms to support ability to pay</p> <p>Improve administration</p>
<p><b>Other wealth taxes</b></p>	<p>Scarce systematic evidence on impact on income inequality</p> <p>Indirect effect through ability to earn income from wealth in future periods (capital assets)</p> <p>Have the potential to raise revenues from individuals with the broadest shoulders, hence enhancing the progressivity of the system</p>	<p>Economists disagree on whether a well-designed tax system should include recurrent net wealth broad base taxes due to administrative and compliance challenges, along with potential distortions to savings, evasion and migration behaviour</p> <p>Potential to raise revenue, but faces administrative challenges, e.g. in observing stock and value for tax purposes and enforcement</p>	<p>A credible one-off net wealth comprehensive tax would be desirable</p> <p>Inheritance taxes could also be considered</p> <p>To the extent that all taxes are imperfect, they can act as a way of diversifying revenue sources to prevent any given tax becoming too high if administration costs do not outweigh benefits</p>

<b>VAT</b>	<p>Broadly regressive and poverty-increasing, but can be more progressive/less impoverishing in high-informality settings where expenditure of poor is not subject to VAT</p> <p>Exemptions and selected reduced rates introduced to dampen regressive impact are less cost-efficient than other policy instruments (e.g. cash transfers) at addressing equality objectives</p>	<p>Significant source of revenue</p> <p>Considered more efficient and less harmful to growth if well designed (uniform rate, minimal exemptions and sufficiently high threshold), minimising distortions to consumption and supply decisions</p>	<p>Important as efficient revenue source for funding more equitable spending – useful to consider VAT in conjunction with the overall system they help to finance.</p> <p>Key areas for reform:</p> <ul style="list-style-type: none"> <li>• set a sufficiently high threshold</li> <li>• broaden the tax base by removing differential rates and exemptions</li> <li>• address administrative weaknesses</li> <li>• address compliance gaps</li> </ul> <p>Where feasible, the revenue obtained from the removal of exemptions and differential rates could be used to compensate lower-income individuals with targeted cash transfers, or even with a universal cash transfer</p>
<b>Excises</b>	<p>Differential distributional and poverty impact depending on consumption patterns across income distribution in the short run</p> <p>Broadly regressive in most countries, but progressive for some excisable expenditures in lower-income countries (e.g. hydrocarbon products, electricity, vehicles, luxury items), although will likely have impoverishing effects on lower-income households</p>	<p>Efficient at addressing negative ‘externalities’ and can also be revenue-raising when levied on goods with inelastic demand, e.g. fuel, tobacco, alcohol (sometimes this holds only in the short run, when behaviour responds to price changes)</p>	<p>Scope to increase excises (and additional revenue) on goods harmful to, e.g. health and environment, in line with value of wider damage to society and environment, particularly in lower-income countries</p> <p>Increases in taxes on fossil fuels can be progressive in lower-income countries, but impoverishing effects need to be mitigated</p> <p>More generally, if taxes are used to correct for externalities and raise revenue but have a poverty-increasing effect, consider using part of the revenue gained to finance cash transfers to compensate for this</p>

<b>Trade taxes/ customs duties</b>	<p>Differential distributional impact depending on consumption patterns across income distribution in the short term</p> <p>In the long run, impact depends on how income is affected as production patterns may change in response; there will be winners and losers and this will be context-specific</p>	<p>Considered inefficient due to barriers to trade, therefore overall tariffs have reduced, and rates broadly aligned to stage in supply chain (lower for raw materials, higher for finished goods)</p> <p>Significant (and administratively efficient) revenue source in lower-income countries</p>	<p>Ensure dispersion of tariffs is minimised and aim for a more uniform tariff structure on imports with rebates for exporters</p> <p>Where feasible (within rules of trade regime) provide compensatory transfers to lower-income households that are affected by changes in trade tariffs</p> <p>Ensure compliance and efficiency as revenue source</p>
<b>Spending</b>			
<b>Cash transfers taking various forms, e.g. targeted, categorical, universal (untargeted), contributory, non-contributory</b>	<p>Usually equalising and poverty-reducing (particularly non-contributory transfers), although not always pro-poor</p> <p>Account for most of the income redistribution achieved by taxes and cash transfers</p>	<p>Negative work incentive effects – vary depending on type of transfer and context. When labour informality is prevalent and transfers are based on verifiable income, can incentivise a shift towards unregistered employment</p> <p>Cash transfers, particularly targeted to the poor, can also improve individuals' equality of opportunity, potentially reducing inequality across generations</p>	<p>Considerations:</p> <ul style="list-style-type: none"> <li>• Level of coverage and progressivity needed – targeted or universal</li> <li>• Financing (may affect coverage and/or adequacy, as well as net progressivity if financed via taxes), e.g. contributory vs. non-contributory</li> <li>• Impact on labour supply incentives</li> <li>• Administrative capacity e.g. if more complex mechanisms of targeting are needed</li> </ul>

	<p>Magnitude of the impact depends on financing, design (e.g. size and targeting mechanism, contributory versus non-contributory), and underlying income distribution in the short term</p> <p>Nearly all non-contributory transfer schemes are poverty-targeted (means-tested or proxy means-tested) or targeted using demographic characteristics like age or disability</p> <p>Conditional cash transfers are more common in LMICs and UMICs</p>	<p>Scope for improvement:</p> <p><b>HICs:</b> switching to universal transfers may be too costly and undermine inequality and poverty outcomes achieved through existing hybrid systems combining means-targeting and contributory transfers. Potential to improve pensions to ensure they are financially sustainable and account for changing trends in the way work is organised.</p> <p><b>In non-HICs</b> with weaker safety net systems and social insurance mostly based on contributions from formal employment, there is scope to expand safety nets (especially as fiscal space expands) and redesign towards poverty- and categorical-targeted and non-contributory assistance</p> <p>Data-driven approaches could be useful to identify categories for incremental targeting in a phased approach towards increased coverage</p>	
<b>Indirect subsidies</b>	<p>The evidence on indirect subsidies is mixed in terms of their impact on income inequality. However, they are often found not to be pro-poor</p> <p>Distributional impact depends on how consumption patterns vary across income deciles</p>	<p>Indirect subsidies are not the most cost-efficient instrument to achieve inequality and poverty outcomes:</p> <ul style="list-style-type: none"> <li>• poor targeting properties</li> <li>• induces over-consumption of goods and services that may have negative externalities, like fossil fuel or water</li> </ul>	<p>Consider removing indirect subsidies and compensating lower-income households with cash transfers for the increase in prices and/or using part of the revenues recouped by the removal of subsidies to finance a universal cash transfer (even if temporary) to compensate all households and achieve political buy-in</p>

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<b>In-kind transfers</b>	Generally equalising and poverty-reducing  Impact on income inequality depends on the type of public education and health spending and how access to and consumption of different services varies along the income distribution	In-kind transfers have the potential to tackle both equality and efficiency goals simultaneously by providing access to free health and education to lower-income households, whilst also increasing human capital and hence productivity  Potential to influence market income inequality (pre-tax and transfer) through improved human capital and productivity	Priority considerations for non-HICs include: <ul style="list-style-type: none"><li>• expansion of access</li><li>• quality of services and outcomes</li><li>• addressing corruption and waste</li><li>• role of subnational governments in delivery</li><li>• The value of health and education services for each household may be different to the cost of provision, which is less well-documented. Further research is needed to evaluate and formulate better policies</li></ul>
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