Bringing taxation into social protection analysis and planning

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Contents

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Abbreviations and acronyms

ADB	Asian Development Bank
ADEPT	Software Platform for Automated Economic Analysis
ASPIRE	Atlas of Social Protection
BIA	Basic Incidence Analysis
CEDAW	Convention for the Elimination of All Forms of Discrimination Against Women
CEQ	Commitment to Equity Initiative
CGE	Computable General Equilibrium
CIM	Cost and Impact Model
CODI	Core Diagnostic Instrument
DFID	Department for International Development
EDePo	Centre for the Evaluation of Development Policies
EU	European Union
EUROMOD	Tax-benefit micro-simulation model for the European Union
FFD	Financing for Development
EPRI	Economic Policy Research Institute
GDP	Gross Domestic Product
ICTD	International Centre for Tax and Development
IFS	Institute for Fiscal Studies
ILO	International Labour Organization
IMF	International Monetary Fund
ISER	Institute for Social and Economic Research
ISPA	Inter-Agency Social Protection Assessments
IZA	Institute for the Study of Labour
HIC	High-Income Country
KIPF	Korea Institute of Public Finance
LIC	Low-Income Country
LSMS	Living Standards Measurement Study
MIC	Middle-Income Country
MISSOC	Mutual Information System on Social Protection
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing Power Parity
RAP	Rapid Assessment Protocol
SAMOD	South African tax-benefit micro-simulation model
SDG	Sustainable Development Goal
SOUTHMOD	Tax-benefit micro-simulation models for countries in the Global South
SPF	Social Protection Floor
UK	United Kingdom
UN	United Nations
UNRISD	UN Research Institute for Social Development
UNU	UN University
US	United States
VAT	Value-Added Tax
WIDER	World Institute for Development Economics Research

Why a Guidance Note on social protection and tax?

- In recent policy debates, social protection and tax have emerged as two of the key policy instruments available to governments in the pursuit of development goals. Both feature prominently in the Sustainable Development Goal (SDG) and Financing for Development (FFD) processes. This renewed interest represents an important opportunity for the closer consideration of the ways social protection and tax operate jointly in practice to shape development outcomes.

- Social protection and taxation interact to shape the distribution and redistribution of income and wealth directly, through the incidence of taxes and transfers. They also interact to shape the resources available for social spending by influencing processes of government accountability and legitimacy, the quality of service provision and people's willingness to pay taxes.

- When studies of the distributional impact of social spending do not take taxation into account, they produce a partial picture of the impact of fiscal policy. Evidence that in some countries the net effects of government spending and taxes leave the poor worse off points to the importance of adopting a comprehensive approach that considers both taxes and spending.

- This Guidance Note provides an instrument, addressed primarily to social protection analysts and practitioners, to promote efforts to bring taxation into social protection analysis and planning. Its objective is to facilitate analysis of a more comprehensive picture of (1) the poverty and inequality impacts of government taxes and transfers and (2) the implications of tax policy for social protection financing sustainability and impact. Its primary motivation rests on concerns for the distributional and equity implications of taxes and transfers and to ensure fiscal policy contributes to progress towards development outcomes.

📖 Sustainable Development Goals (SDGs)

📖 Financing for Development (FFD)

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The Guidance Note answers the following questions:

- ▶ <u>What are the types of analyses that consider taxation and social protection jointly?</u>

- ▶ <u>How do I get started designing or commissioning a new study on the incidence and poverty and inequality impacts of taxes and transfers?</u>

- ▶ <u>Where do I go for additional information and support?</u>

- ▶ <u>What are the main methodological issues I need to be aware of in fiscal incidence analysis?</u>

- ▶ <u>How do I interpret the policy findings of a basic incidence study – what does the study (not) tell us?</u>

Types of analysis and what the evidence says

- This Guidance Note discusses two areas of inquiry and types of analysis: (1) approaches to studying the incidence and poverty and inequality impact of taxes and transfers and (2) analysis of the role of taxation in social protection financing. Within the first area of inquiry, basic incidence analysis (BIA) displays some practical advantages. It can be comparatively simple to calculate and its results can be quite easily understood. In the second area, resources relevant to social protection financing analysis include tools for costing the funding gap, fiscal space analyses and literature on the political economy of alternative revenue sources and their implications for the sustainability and impact of social spending.

- A review of existing evidence highlights three main policy messages to be borne in mind when approaching tax–transfer analysis: (1) taxes and transfers can be a powerful redistributive tool; (2) tax and transfer design and implementation details matter; and (3) variations in the levels and composition of revenue, or 'financing mix', have implications for distributional outcomes and policy sustainability.

Getting started

- Whether interested in the incidence of taxes and transfers or in issues of social protection financing and tax, social protection analysts can refer to a number of international research bodies that specialise in these topics for guidance on how to design a study, access resources or team up with their experts. Section 3 in this Guidance Note provides a list of international research centres working on these topics. It also provides references and resources on data (including revenue and spending data and household survey micro data) and software for data management and analysis. For analysts interested in carrying out BIA, several software packages with the code required are easily accessible.

Going deeper – basic incidence analysis

- BIA of taxes and transfers identifies who pays taxes and receives in-kind or income transfers and describes the welfare impact of government taxation and spending. It typically uses individual or household survey data and a combination of evidence and assumptions about who pays taxes and receives transfers and their costs to analyse the incidence and distributional impact of policy on individuals or households.

- Compared with alternative approaches to distributional analysis, BIA can be readily implemented and leads to results that are easily communicated, including to a broad audience. Ease of interpretation of findings means that results can draw attention to the poverty and inequality implications of fiscal policy. BIA results can help ensure that policymakers consider the distributional effects of tax and transfer policy reform, alongside other policy objectives.

- BIA is especially suited to evaluating policies with a marked direct impact on households, such as taxes and transfers. At the same time, it does not take into account behavioural responses to a tax or transfer change and provides a first-order approximation of policy.

- The Guidance Note provides a checklist of the main methodological issues in basic fiscal incidence analysis in Section 4. When commissioning or designing a new study or reporting

> " BIA results can draw attention to the poverty and inequality implications of fiscal policy and help ensure that policymakers consider the distributional effects of tax and transfer policy reform. "

findings, analysts must ask and clearly signal responses to questions such as: What is the unit of analysis? How is income/expenditure adjusted for unit size and composition? What tax and transfer policies are captured by the study?

Methodological issues in basic fiscal incidence analysis

- ✓ Unit of analysis and inter-unit comparisons
- ✓ Time period
- ✓ Measure of welfare by which units are ranked
- ✓ Population grouping and type of disaggregation of analysis
- ✓ Coverage of taxes and expenditures
- ✓ Incidence assumptions
- ✓ Valuation
- ✓ Measure of redistributive impact of government

Source: Author

- Basic fiscal incidence analysis lends itself to disaggregation by dimension of the underlying population, such as by gender, age, geography and ethnicity. Understanding the incidence of taxes and transfers by gender and how gender gaps in tax and transfers vary across the welfare distribution sheds light on these issues as well as on the more aggregate findings of BIA by providing examples of the possible explanations underlying aggregate findings. There are both conceptual and empirical challenges to implementing gender-disaggregated BIA in practice. These include challenges in reconciling individual- and household-level concepts and lack of disaggregated data.

- The elaboration of policy implications from BIA findings needs to include careful consideration of the fiscal policies and policy effects that BIA does not capture and could be usefully supported by additional policy analysis designed to uncover why incidence outcome are what they are. The results of BIA should be viewed as one important input into the analysis of the poverty and inequality impact of fiscal policy.

> " Gender-disaggregated incidence analysis highlights gender gaps and how these vary across the welfare distribution. It can also help shed light on aggregate BIA findings. "

Why a Guidance Note on social protection and taxation?

In recent policy debates, social protection and taxation have emerged as two of the key policy instruments available to governments in the pursuit of development goals. Both feature prominently in the Sustainable Development Goal (SDG) and Financing for Development (FFD) processes. Such developments represent an important opportunity for the closer consideration of the ways in which taxation and social protection operate jointly in practice to shape development outcomes.

Social protection and tax interact to shape the distribution and redistribution of income and wealth directly, through the incidence and distributional impact of transfers and taxes. They also interact to shape the resources available for social spending by influencing processes of government accountability and legitimacy, quality of service provision and people's willingness to pay taxes.

However, in both policy analysis and operations, it is common to continue to discuss social protection and taxation separately. Moreover, in some policy circles, taxation and tax reform continue to be discussed primarily in terms of revenue-generating potential, with limited consideration of their distributional implications.

Evidence highlighting the poverty and inequality impacts of social protection has been used in support of its expansion across developing countries over the past two decades. Yet, when such studies examine social spending separately from taxation, they produce at best a partial picture of the impact of fiscal policy. Evidence that in some countries government spending and taxes leave the poor worse off points to the importance of adopting a comprehensive approach that encompasses both taxes and spending.

In the area of tax, recent policy discussions have emphasised its revenue-generating potential. In the Addis Ababa Action Agenda – the outcome document from the Third International Conference on FFD – taxation is presented as one of the main policy options available to government to raise the 'significant additional domestic public resources' that will be critical to achieving the SDGs. Less attention has been paid to the redistributive role and distributional implications of taxation. However, there is scope for policy-makers and analysts to shape tax policies to both raise revenue and address inequalities.

Sustainable Development Goals (SDGs)

Financing for Development (FFD)

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Evidence that in some countries government spending and taxes leave the poor worse off points to the importance of adopting a comprehensive approach that encompasses both taxes and transfers.

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Box 1: Government spending and taxes can leave the poor worse off

Fiscal policy can play a significant role in reducing poverty and inequality (see Section 2). However, in some countries, the incidence of poverty after taxes and transfers (excluding in-kind transfers) is higher than pre-tax pre-transfer poverty. In Brazil, extreme poverty ($2.50/day) is reduced by 28% and moderate poverty ($4.00/day) by 14% by direct transfers. However, when indirect taxes are considered, the reduction in extreme poverty nearly disappears and moderate poverty increases. The number of near-poor who are pushed into moderate poverty by paying more taxes than they receive benefits is higher than the number of poor who escape poverty by receiving more in transfers than they pay in taxes (Higgins and Pereira, 2013: 12). In Tanzania, regardless of the poverty line used, poverty is higher once direct taxes and transfers and subsidies are taken into account. A comparison of poverty measured at $2.50/day for market income and post-fiscal income reveals an increase of 4.8% in the poverty headcount ratio. The effect is entirely or mostly reversed, depending on the poverty line, once in-kind transfers are considered, with the move to final income (Younger et al., 2016: 13).

Even when fiscal policy leads to an overall reduction in poverty, households can be made poor or poorer. In Ethiopia, although poverty falls as a result of fiscal policy, one in four households is impoverished after direct taxes are paid and transfers received and nearly one in 10 households is impoverished when all taxes paid and transfers received are taken into account: fiscal policy impoverishes 25% of households, when considering disposable income, and 9% of households when considering final income (World Bank, 2014: 67).

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> There is scope for policy-makers and analysts to shape tax policies to both raise revenue and address inequalities.
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This Guidance Note, addressed primarily to social protection analysts and practitioners, contributes to efforts to bring taxation into social protection analysis and planning. Its objectives are to promote a more comprehensive picture of the poverty and inequality impacts of government taxes and transfers and to highlight the implications of tax policy for social spending, including on social protection. Its primary motivation rests on concerns for the distributional and equity implications of taxes and transfers and for ensuring fiscal policy meets its potential of promoting development outcomes.

Who is the Guidance Note for and what does it do?

This Guidance Note is designed for social protection practitioners and analysts interested in the links between social protection and tax, with a focus on how to approach, commission and interpret studies of the incidence and distributional impact of taxes and transfers. It also provides resources and references for the analysis of the role of taxation in social protection financing.

The Guidance Note's main objectives are to provide:

- Examples of the types of analyses that consider taxation and social protection jointly

- Guidance on the steps to carrying out basic incidence analysis (BIA) of the tax and transfer system

- Guidance on how to interpret the results of BIA and their policy implications

- References to resources on research centres, data and software

- Examples of good practice in joint tax and transfer analysis

Section 2 provides key background information on different types of analyses and on existing evidence. It identifies BIA as one approach, alongside micro-simulation and computable general equilibrium (CGE) models, available to analyse the incidence and distributional impact of taxes and transfers. It also discusses the implications of taxation for social protection financing and examples of studies and resources on this topic. The section summarises what existing evidence shows, consolidating the findings of this Note's longer sister paper (Bastagli, 2015).

▶ Section 2: Key background

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Section 3 provides guidance, references and resources on getting started. It identifies the information requirements for describing country context, including a country's socioeconomic and labour market structure, and for mapping out tax and transfer systems and policies. It then provides resources to support efforts on tax–transfer analysis.

These include information on the international research centres that carry out tax–transfer analysis and links to datasets and software for data management and analysis.

▶ <u>Section 3: Getting started</u>

Section 4 narrows its attention to BIA and is designed as a stand-alone section of the report for those especially interested in this type of analysis. It provides a detailed checklist of issues that need to be addressed when designing, commissioning or interpreting the findings of BIA studies of taxes and transfers. It covers methodological issues such as the definition of income concepts, the choice of welfare measure by which to rank units of analysis and how to determine the incidence of social spending and taxes. It includes a section on integrating gender in incidence analysis. Sub-sections contain examples drawn from existing studies to illustrate the issue discussed.

▶ <u>Section 4: Going deeper: basic fiscal incidence analysis</u>

Throughout, special attention is paid to the challenges and issues that are particularly relevant to low- and middle-income countries (LICs and MICs).

The Guidance Note is based on a comprehensive literature review covering the methodological issues of BIA and the theory and evidence on tax–transfer linkages and their implications for distributional and broader development outcomes. We reviewed a wide range of documents, including publications in peer-reviewed journals and books discussing methodological approaches and evidence for low-, middle- and high-income countries (HICs).

Social protection and tax: definitions

Social protection is made up of the set of public policies which pursue the following policy objectives: poverty reduction and income- or consumption-smoothing over people's lifetimes as well as income and wealth redistribution. It is understood to cover a range of policies that may be broadly grouped into social assistance (generally tax- or donor-financed, explicitly pursuing a poverty reduction objective and designed to reach vulnerable and disadvantaged groups); social insurance (generally financed out of employer or employee contributions, or a combination of both, and providing protection against contingencies arising over the life course such as maternity and old age or from work-related contingencies such as unemployment); and labour market policies (e.g. active labour market policies). Social protection instruments include in-kind and cash transfers, subsidies and public works schemes.

Although the focus of this Guidance Note is on social protection, it recognises that social protection policies are a sub-category of social policy and social spending and operate within these broader policy settings, not in isolation. It follows that any discussion of social protection should take broader social policy and spending into account. For this reason, every effort in the Note is made to include information on how additional social sectors and spending categories, such as education and health, can be considered in tax–transfer analysis. Consideration of broader social spending in social protection and social policy analysis is particularly important in the case of many LICs and MICs, where categories other than social protection make up the bulk of social spending (Figure 1, Panel B).

The basic categories of taxes that make up country tax systems are direct taxes on income and wealth; indirect taxes on consumption; property taxes; and trade taxes. The most common direct taxes are the personal income tax, the corporate income tax and wealth or inheritance taxes. Indirect taxes include value-added tax (VAT) and selected sales and excise taxes (e.g. taxes on alcohol and cigarettes). Property taxes tend to be imposed on real estate such as land and housing, or on personal property such as cars and boats. Trade taxes often take the form of import or export duties (Grown, 2010).

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> Social protection policy objectives include poverty reduction and income- or consumption-smoothing over people's lifetimes as well as income and wealth redistribution.
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Figure 1: **Tax revenues and social spending by macro region** (% of GDP 2011 or most recent year)

■ Indirect ■ Income ■ Corporate ■ Property

■ Social Protection ■ Health ■ Education

Source: IMF (2014).

The structure of tax revenue varies across countries to reflect differences in the economic base, the specific history and the legal and political structure (for variations across macro-regions see Figure 1). It also varies with the level of national income. Across LICs, about two thirds of tax revenue is raised through indirect taxes. In contrast, across HICs, indirect taxes account for a smaller share of total tax revenue, with most of tax revenue coming from direct taxes (Grown, 2010; IMF, 2014). Figure 1 shows how indirect taxes make up a large portion of government tax revenue in macro regions including Latin America and the Caribbean, Sub-Saharan Africa and the Middle East and North Africa, necessitating a clear understanding of how these taxes interact with the broader fiscal system to affect the distribution of income. Much of the basic fiscal incidence analysis literature, particularly for HICs, focuses on direct taxes such as income taxes, which account for a high share of total government revenue in these countries. This Note aims to include guidance on those tax policies that are especially important to LIC and MIC settings, covering indirect taxes such as consumption taxes.

Types of analysis

This Guidance Note identifies two related areas of inquiry linking social protection and taxation:

1. analysis of the incidence and distributional impact of tax and transfers and

2. analysis of the role of taxation in social protection financing and its sustainability over time.

The incidence and distributional impact of taxes and transfers

Tax–transfer *incidence* analysis tells us who pays taxes and receives social transfers. It examines how the 'costs' associated with paying tax and transfer receipt are distributed across the population ranked by income, wealth and consumption and/or across population groups, for instance by gender. Distributional *impact* analysis reveals the poverty and inequality impact of policy. It provides a measure of the effects of taxes and transfers on a welfare measure such as income or consumption.

Approaches to estimating the welfare effects of taxes and transfers may be micro-economically oriented or rely on macro modelling. They vary depending on whether they are static and are limited to first-round effects, disregarding behavioural responses, or whether they take the latter into account.

- **BIA** examines who bears the cost of a tax and benefits from public services or transfers and describes the welfare impact of government spending and taxation using individual or household-level data and a combination of evidence and assumptions about who pays taxes and benefits from transfers and their costs. This typically reveals a picture of a point in time and ignores behavioural responses and other 'second-round' effects (Demery, 2003).

- **Micro-simulation models** bring together detailed individual/household-level information with detailed information on tax–benefit structures to evaluate specific policy reforms. They can capture dynamics, including behavioural responses, and can be extended to account for links with macroeconomic models (Figari et al., 2014).

- **CGE incidence models**, in contrast with BIA and most micro-simulation models, make the tax and transfer system a component of a model of the market economy and aim to capture interaction between the fiscal system and the wider market economy. Limitations include that such models do not incorporate the level of policy detail captured by BIA and micro-simulation studies. Moreover, the results of CGE simulations can be model-specific and more difficult to interpret compared with simpler BIA and micro-simulation approaches (Boadway and Keen, 2000; Bourguignon and Pereira, 2000).

This Note concentrates on empirical approaches classified under the first group – that is, those that are micro-economically oriented and that rely on disaggregated data on the sources and uses of income – and specifically BIA. Compared with alternative approaches, BIA displays some practical advantages. It is comparatively simple to calculate and findings can be simple to communicate. Its simplicity means its results can help inform policy discussion and policy change.

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Box 2: Distributional analysis of taxes and transfers is used
to inform policy debate and reform

The results from distributional analysis draw attention to the poverty
and inequality implications of fiscal policy. They can help ensure that
policymakers consider the distributional effects of tax and transfer policy
reform, alongside policy objectives such as raising government revenue.
Results from distributional analysis have also been used to directly inform
policy debate and reform. Some examples follow.

In Mexico, analysis of the country's tax and benefit system conducted using
IFS's LATAX ▶ http://www.ifs.org.uk/publications/8014 micro-simulation
model contributed to the government's decision to eliminate inefficient
exemptions and differential border rates of their VAT system.

In Costa Rica, results from analysis carried out using the CEQ's approach
▶ http://www.commitmentoequity.org/, highlighting the impact of indirect
taxes on the poor and on inequality, encouraged the Ministry of Finance to
include distributional considerations in its fiscal policy reform analyses. It also
led to the proposal to a) develop policy scenarios centred on greater reliance
on income taxes, instead of indirect taxes, and b) abandon a proposal to
subject the "canasta básica" (a basic basket of consumption goods targeted
to the poor) due to its adverse redistributive effects.

In Colombia, CEQ simulations of alternative scenarios for the reform of
the Sistema General de Participaciones, which governs the transfers to
local governments that cover expenditures in education, health, water, and
hygiene, illustrated the impacts on poverty and inequality and informed a
redesign that was more conscious of the objectives of reducing inequality
and poverty.

The regular implementation and use of findings from the EUROMOD
▶ https://www.euromod.ac.uk/ tax-benefit micro-simulation tool
for EU countries has led to its extension and adaptation to non-EU
countries, including for South Africa, with the development of SAMOD
▶ https://www.iser.essex.ac.uk/research/publications/working-papers/
euromod/em5-09, and, more recently, with SOUTHMOD ▶ https://www.
wider.unu.edu/project/southmod-simulating-tax-and-benefit-policies-
development, simulating tax and benefit policies for development.

At the same time, BIA reveals a picture of a point in time rather than over the lifecycle and does not incorporate behavioural or general equilibrium modelling, producing a first-order approximation of the distributional effects of policy. This has implications for the analysis of certain fiscal policy instruments, such as inter-temporal transfers, and for the policy lessons that can be drawn from research findings. Moreover, by describing the situation as it is – how the tax burden and spending are distributed across groups on average – BIA reveals little about how changes in taxes and transfer policies will be distributed. Yet often the important policy questions concern who would benefit from a policy reform, for instance from the expansion or contraction of a specific spending programme. This requires marginal incidence analysis. Section 4 provides a more detailed discussion of the advantages and limitations of basic fiscal incidence analysis, the methodological issues involved and examples to illustrate these.

Social protection financing: the role of taxation

Limited financial resources and funding constraints are one of the reasons governments commonly put forward to explain weak or absent social protection. Low levels of revenue mean governments may have less capacity to spend, and such constraints can be especially high in LICs, where the need for social protection is high (ODI, 2015).

Three streams of literature usefully feed into an analysis of the role of taxation in social protection financing, covering:

1. the costs of social protection financing and the identification of social protection funding gaps

2. the implications of tax policy design and administration practices for tax revenue levels and composition

3. political economy analyses of alternative revenue sources and their implications for the legitimacy and sustainability of social spending, including on social protection.

Under the first area of work, developments in social protection analysis in recent years include a growing number of tools designed to cost social protection policies and initiatives to match alternative policy scenarios with the assessment of available fiscal space and its projected evolution (ILO and IMF, 2012).

Social protection costing tools vary depending on whether they are primarily designed for programme-specific analysis or for illustrating general trends and for broader advocacy purposes (ODI, 2011). Examples include: the Social Protection Floor (SPF) Costing Tool (ILO-UNICEF), the Rapid Assessment Protocol (RAP) (ILO), Rapid Assessment Protocol Plus (RAP+) (ILO) and the International Pension Calculator (HelpAge) (works out the cost of universal pensions in 175 countries across the globe).

Examples of recent social protection costing and fiscal space analysis which include options for increasing fiscal space for social spending through tax reform include studies for Mozambique (Cunha et al., 2013) and Vietnam (Bonnet et al., 2012).

Another stream of work analyses the implications of tax policy design and administration practices for government tax revenue levels and composition. A range of country-level factors influence tax take, including average per capita income levels, extent of urbanisation and size of the informal economy. Economic growth, per capita income and wage increases and employment formalisation are important to widening the tax base. However, they do not mechanically translate into higher revenue. Tax policy design and administration practices and improvements in tax systems are required to take advantage of such developments.

Studies in this field identify country revenue gaps and the tax design and administration features associated with such gaps. They vary depending on whether they explicitly address the role of taxation in providing resources for social protection financing (e.g. Ortiz et al., 2015) or do not necessarily make an explicit link between revenue-raising efforts and social protection, yet provide a useful resource for identifying country tax policy options and priorities and their implications for raising tax revenue, including for social spending (e.g. Moore, 2013).

Examples of the tax policy design and administration issues discussed in this strand of the literature include:

- *The role of tax incentives and tax breaks***:** studies point to the potential tax lost by governments in the form of 'tax incentives': reduced tax rates and incentives designed to attract foreign investors have become more pervasive in some countries, yet evidence of their effectiveness in attracting investors is at best unclear (Keen and Mansour, 2009; Fjeldstad and Heggstad, 2011; MF, 2011; OECD, 2014);

▶ Social Protection Floor Costing Tool http://www.social-protection.org/gimi/gess/ShowWiki.action?wiki.wikiId=7

▶ HelpAge International Pension Calculator www.pension-watch.net/pensions/about-social-pensions/about-social-pensions/pensions-calculator

- *The taxation of income and wealth*: low tax rates applied to incomes that are not derived from wages and salaries, together with high levels of personal exemptions from income taxes, wipe out a large part of the tax base for personal income tax in some countries (e.g. Tanzi, 2013);

- *The taxation of land and property*: property tax has been neglected in favour of other, less conspicuous, taxes such as consumption taxes, yet displays some administrative advantages and the potential to enhance the accountability of municipal governments (e.g. Monkam and Moore, 2015);

- *Tax avoidance and evasion* by those multinational enterprises that use transfer mispricing and other practices to shift profits and losses around the world so that they are recorded in different jurisdictions in order to minimise overall tax liabilities and tax avoidance schemes involving tax havens: studies estimate the amounts lost in tax revenue through such practices and discuss the policy options available to tackle these (e.g. Ortiz et al., 2015; Oxfam, 2015; UNCTAD, 2015);

- *Revenue diversification*: revenue from natural resources presents a precious opportunity to finance social spending, however, high reliance on this revenue source can expose countries to volatility. Moreover, there is some evidence that resource-rich countries neglect the development of non-resource taxation and suggest that easy revenues from extractive industries may deter politicians from embarking on deeper tax reforms (Crivelli and Gupta, 2014; Hujo, 2012);

- *Technical, technological and statistical capacities*: lack of basic information systems, trained staff and computerised accounts pose a challenge to collecting taxes and may facilitate tax avoidance and evasion; studies outline the types of administrative challenges encountered and policy options to address them (e.g. Keen, 2012; Mascagni et al., 2014).

The third strand of work explores the political economy of social protection and tax. It tackles questions concerning the politics of revenue and social provision and the implications of alternative revenue sources for social policy financing and its sustainability over time. This area of work explores the contestation and bargaining processes that influence who pays, who and what is exempted, how much should be paid and how the resources collected should be mobilised

across sectors, groups and communities. Recent projects on this topic, include UNRISD's work on the politics of resource mobilisation for development (see under resources).

What does the evidence tell us?

Background knowledge on policy implications arising from existing evidence provides a strong foundation for policy analysts and practitioners approaching existing social protection/tax studies or designing new ones.

Exisiting reviews show that:

Taxes and transfers can be a powerful redistributive tool.

Tax and transfer policy design and implementation details matter to distributional outcomes.

The levels and composition of revenue, or 'financing mix', matter to distributional outcomes and policy sustainability.

Taxes and transfers can be a powerful redistributive tool

Taxes and transfers can be a powerful redistributive tool. In the European Union (EU)-27 member states, direct taxes and transfers reduce income inequality measured by the Gini coefficient by an average 20.9% (Figure 3). (Note that this average reduction amounts to 9.2% when pensions are considered part of market income. Figure 3 reports inequality measures under both assumptions – pensions as transfers and deferred income – since for LICs and MICs the market income measures reported in Figure 2 include contributory pensions. For a detailed discussion on income definitions see Section 4.) For the LICs and MICs Figure 2 covers, the comparison of the market income – including contributory pensions – Gini coefficient with

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In the EU-27 member states, direct taxes and transfers reduce income inequality measured by the Gini coefficient by an average of 21%.

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the disposable income Gini coefficient reports an average reduction brought about by direct taxes and transfers of 2.2% including South Africa and 1.7% excluding South Africa. Impacts vary from a low/negligible reduction in income inequality of around 0.5% in Guatemala and Indonesia and a 1% reduction achieved in Bolivia, El Salvador, Ethiopia and Peru to a 7.7% reduction in highly unequal South Africa.

Figure 2: The impact on income inequality of direct taxes and transfers – LICs and MICs

Gini coefficient

■ Disposable income Gini   ■ Market income (plus contributory pensions) Gini

Figure 3: The impact on income inequality of direct taxes and transfers – EU countries

Figure 2 and 3 source: Author, from various sources: EUROMOD statistics on Distribution and Decomposition of Disposable Income, accessed at http://www.euromod.ac.uk/using-euromod/statistics using EUROMOD version no. G2.0; Armenia (Younger et al., 2014), Bolivia (Paz-Arauco et al., 2014), Brazil (Higgins and Pereira, 2014), Costa Rica (Sauma and Trejos, 2014), El Salvador (Beneke et al., 2015), Ethiopia (Hill et al., 2014), Guatemala (Cabrera et al., 2014), Indonesia (Jellema et al., 2014), Mexico (Scott, 2014), Peru (Jaramillo, 2013), South Africa (Inchauste et al., 2014) and Uruguay (Bucheli et al., 2014) in World Bank (2014a), Ghana (Younger et al., 2015) and Tanzania (Younger et al., 2016).

Policy design and implementation matter

The incidence and poverty and inequality impact of fiscal policy depend on the design and implementation details of tax and transfer policies and how they interact in practice. According to the static basic fiscal incidence framework, the *distribution* of benefits and of tax across the population and the *size* of taxes and transfers interact to shape distributional outcomes. This would help explain, for example, why a well-targeted income transfer that disproportionately accrues to low-income groups may have a more muted impact on poverty than a less well-targeted transfer with a higher transfer value.

The evidence from existing basic fiscal incidence studies reveals that, while patterns on the incidence and distributional effects of specific tax and transfer policies do emerge (e.g. personal income taxes tend to be progressive), generalisations need to be treated with caution. Policy design and implementation details vary within specific tax and transfer categories and interact with other policies in the system to shape outcomes.

Policy design and implementation options can address distributional concerns, in addition to other policy priorities – such as raising revenue through taxes. In the case of taxes, design options to help address equity concerns associated with consumption taxes include the practice of ensuring that taxes on goods that are most important to the consumption bundle of the poor are maintained low (e.g. zero or reduced VAT rates), for instance through exemptions for basic necessities.

The levels and composition of revenue, or 'financing mix', matter to distributional outcomes and policy sustainability

Compared with alternative options to raising government revenue, taxation displays some distinguishing features and potential advantages. In particular, the literature links state formation and consolidation to the capacity of the state to tax and underscores taxation's potential role in establishing and strengthening government legitimacy and state–citizen relations. By ensuring sustainable funding of social policy and public investments and promoting accountability of government to tax-paying citizens, effective tax systems can be associated with a 'virtuous circle', whereby the generation of government tax revenues leads to improved service provision, which in turn increases citizens' willingness to pay taxes.

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> While patterns on the incidence and distributional effects of specific tax and transfer policies do emerge (e.g. personal income taxes tend to be progressive), generalisations need to be treated with caution. Policy design and implementation details matter.
> "

The fairness of the tax system is critical in this respect. The unfair distribution of the tax burden, if associated with the unequal distribution of income and wealth, can result in low levels of trust in institutions, low tax morale and high tax avoidance and evasion. Another critical factor concerns tax diversification. Especially in countries where tax collection relies predominantly on natural resources, state leaders may be less accountable to their citizens because such revenues are 'unearned' (Di John, 2010). High reliance on revenue from natural resources is also associated with volatility, instability and financing sustainability concerns.

In LICs and MICs, where increases in tax revenue as a percentage of GDP have been achieved, these are associated mainly with the expansion of indirect taxes, such as consumption taxes, and the taxation of natural resources, against declining trade tax revenues, modest gains in personal income tax and limited revenue from property and corporate income tax. Increased government revenue from indirect taxes and natural resources represents an important opportunity. At the same time, it points to the need for additional careful consideration of equity and sustainability implications.

What are the tax and transfer policies in place?

The main steps to take when embarking on an analysis of social protection and tax in a country are:

1. develop familiarity with country context

2. identify policies in place and policy mapping

3. clarify policy objectives

4. identify basic policy design and implementation parameters, including scale or size of programmes.

Familiarity with a country's broader economy is important. In particular, the structure of a country's economy and its labour market (e.g. government accounts, size of the agriculture sector and other sectors of employment, per capita incomes, size of the informal economy, etc.) and its demographic composition and trends provide information that needs to be taken into account when interpreting the findings of a study or planning a new one.

Identifying the tax and transfer policies in place requires detailed information from official policy documents and legislation in combination with administrative and household survey data – depending on data availability and the policy in question. This will typically require national level micro-data obtained in country. The tables below provide information on international data bases which provide data which can usefully be used to map broad trends and facilitate cross-country comparisons. Some of these also provide access to national micro-data. For reasons of document length and scope, country-level data sources were not reviewed, however in most countries they remain the primary source of relevant and up-to-date information for the detailed mapping of tax and transfer policies.

A distinction needs to be made between policy design and implementation. Ideally, both need to be taken into account since policy implementation can differ from what is outlined on paper by regulation, leading to different experiences in practice, in turn determining outcomes. For example, in the case of taxes, this includes gathering information available on the economic incidence of policy, not just statutory incidence (the legal liability to pay tax). Though difficult to

capture in practice, this could, for instance, enable an analysis to factor in the scale and effects of tax avoidance and evasion which would otherwise not be taken into account.

Box 3: The Inter-Agency Social Protection Assessment (ISPA) Tools

ISPA provides a set of practical tools and guidance to map, monitor and analyse social protection systems, policies and their implementation.

▶ http://ispatools.org/

ISPA's Core Diagnostic Instrument (CODI) maps the main elements of a social protection system in a given country, including national objectives, strategies, policies and programmes. It provides a useful tool for mapping a country's social protection policies, their objectives and the context within which they operate.

▶ http://ispatools.org/core-diagnostic-instrument/

This policy mapping exercise needs to include a careful review of the main policy objectives of different policies. As outlined above, social protection instruments can pursue different objectives, including redistribution among individuals across the income distribution or among different groups defined on the basis of characteristics such as age, gender and household composition. Furthermore, policies may pursue an objective at one point in time or have an inter-temporal dimension as they address events over the course of the lifecycle. Such distinctions are critical to a meaningful analysis of policy. Confusion about a policy's welfare objectives can be an obstacle to determining policy impact and adequately interpreting study findings (e.g. van de Walle, 1996).

As in any analytical endeavour, tax and transfer analysis requires a careful balancing of the priorities of comprehensiveness and of feasibility. Taking stock of what tax and social protection policies are in place in a country and their importance in terms of revenue generated (tax) and government spending (social protection) is critical to identifying which policies the analysis needs to prioritise. The existing literature reflects this approach. Tax–transfer studies on HICs – in which direct taxes such as personal income tax and direct transfers

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> Social protection instruments can pursue different objectives... Such distinctions are critical to a meaningful analysis of policy.
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in the form of cash transfers form the bulk of government revenue and social protection spending, respectively – tend to focus on such tax–transfer policies. In contrast, in countries where indirect taxes such as consumption taxes and/or in-kind transfers (e.g. in the form of education and health spending) account for a higher share of revenue and spending, taking these fiscal policy instruments into account is especially important.

Identifying international research centres to work with

Whether interested in the incidence and distributional impact of taxes and transfers or in issues of social protection financing and tax, social protection analysts and practitioners can refer to a number of international research bodies that specialise on these topics for guidance on how to proceed, access resources or team up with their experts. The following table lists some of the main international research centres working on these topics.

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Table 1: Identifying international research centres to work with

Organisation	Areas of specialisation
Commitment to Equity Initiative (CEQI)	Uses incidence analysis and diagnostic questionnaires to analyse the impact of taxation and social spending on inequality and poverty in individual countries and to provide a roadmap for governments, multilateral institutions and non-governmental organisations in their efforts to build more equitable societies. Resources include a handbook with a step-by-step guide to applying the incidence analysis used in CEQ. ▶ http://www.commitmentoequity.org/
Microsimulation Unit at the Institute for Social and Economic Research (ISER)	Developed and runs the tax and benefit model EUROMOD, a micro-simulation model for the EU that enables researchers and policy analysts to calculate, in a comparable manner, the effects of taxes and benefits on household incomes and work incentives for the population of each country and for the EU as a whole. The model has also been adapted for use in developing countries. ▶ https://www.iser.essex.ac.uk/euromod

Table 1 continued

Organisation	Areas of specialisation
International Centre for Tax and Development (ICTD)	A global policy research network, devoted to improving the quality of tax policy and administration in developing countries, with a special focus on Sub-Saharan Africa. Research themes include international tax, local government tax, tax administration, informal sector tax and natural resource tax. Developed and manages the Government Revenue Dataset available online. ▶ http://www.ictd.ac/
Institute for Fiscal Studies (IFS)	Microeconomic research institute that publishes regular analysis of the impact of fiscal policy on human capital investments, work and occupational choice, firm behaviour, saving and retirement decisions, consumer choices and public finances in the UK. Hosts the Centre for the Evaluation of Development Policies (EDePo), carrying out research on the impact of development interventions and policy reforms in developing countries, including fiscal policy. Resources include LATAX, a multi-country tax micro-simulation model, available online. ▶ http://www.ifs.org.uk/
Overseas Development Institute (ODI)	ODI's Social Protection Programme specialises in the analysis of social protection policies, including their design, financing, monitoring and evaluation. It carries out rigorous and inter-disciplinary research covering, among other themes, gender, political economy and impact analysis of social protection and its financing mechanisms. It provides technical advice to governments and other stakeholders and is known internationally for its convening role on this topic. ▶ http://www.odi.org/programmes/social-protection
Organisation for Economic Co-operation and Development (OECD)	Regularly carries out analysis of the incidence and poverty and inequality impact of taxes and transfers in OECD countries. Resources include data on tax and benefit systems (see box below). Carries out tax policy studies and leads the base erosion and profit shifting initiative. ▶ http://www.oecd.org/social/ ▶ http://www.oecd.org/tax/
UN Research Institute for Social Development (UNRISD)	Carries out analysis of social policy financing and the political economy of domestic resource mobilisation, including work on mobilising revenue from extractive industries and the politics of domestic resource mobilisation for social development. ▶ http://www.unrisd.org/
UN University (UNU)-World Institute for Development Economics Research (WIDER)	Carries out research on the politics of taxation and social protection and on the distributional impact of taxes and transfers. The research programme SOUTHMOD develops tax-benefit micro-simulation models for developing countries: ▶ https://www.wider.unu.edu/

Data and software for data management and analysis: requirements and availability

This section provides information on international databases which can be used for descriptive trends in government revenue and spending and facilitate comparative analysis. Some of these sources also provide access to household and individual level micro-data which can be used for more detailed policy analysis. For a more comprehensive and detailed picture of policies, country data from institutions such as national statistical offices, ministries and policy implementation agencies are required.

Implementation of BIA more specifically requires household survey micro data (at the individual or household level) and commonly also administrative programme/policy data. It also requires programming skills and software packages for the management and analysis of large micro datasets. Conveniently, several software packages with the code required to undertake incidence and distributional analysis are readily available or directly accessible.

The following tables list some key resources on:

▶ Revenue data

▶ Social spending data, with a focus on social protection expenditure

▶ Household and/or individual level micro data or distributional data in grouped form

▶ Software, coding and tools for fiscal incidence analysis

> "
> Conveniently, several software packages with the code required to undertake incidence and distributional analysis are readily available or directly accessible.
> "

Table 2: Revenue data

Source	Type of information
ICTD	Global Government Revenue Dataset ▶ http://www.ictd.ac/datasets/the-ictd-government-revenue-dataset
IMF	Government Finance Statistics ▶ http://data.imf.org/?sk=a0867067-d23c-4ebc-ad23-d3b015045405
Mansour (2014)	Tax revenue dataset for sub-Saharan Africa (1980-2010) ▶ http://www.ferdi.fr/sites/www.ferdi.fr/files/publication/fichiers/i19_mario_mansour_papier.pdf
OECD	Revenue statistics ▶ http://www.oecd.org/ctp/tax-policy/

Table 3: Social spending data, focus on social protection expenditure

Source	Type of information
Asian Development Bank (ADB)	Social Protection Index database ▶ https://spi.adb.org/spidmz/index.jsp
European Commission	Mutual Information System on Social Protection (MISSOC) ▶ http://ec.europa.eu/social/main.jsp?catId=815&langId=en
ILO	Social Security Inquiry ▶ http://www.ilo.org/dyn/ilossi/ssimain.home ▶ http://www.ilo.org/secsoc/lang--en/index.htm
IMF	Government Finance Statistics, expenditure categories by level of government ▶ http://data.imf.org/?sk=a0867067-d23c-4ebc-ad23-d3b015045405
OECD	Social expenditure database ▶ http://www.oecd.org/els/soc/expenditure.htm; http://www.oecd.org/social/soc/
World Bank	The Atlas of Social Protection (ASPIRE) ▶ http://datatopics.worldbank.org/aspire/
World Bank	World Development Indicators (WDI) public sector indicators ▶ http://data.worldbank.org/topic/public-sector#tp_wdi

Table 4: Household and/or individual micro data or distributional data in grouped form,
e.g. Income shares of deciles of household ranked by per capita income

Source	Type of information
EUROMOD	EUROMOD statistics on the distribution and decomposition of disposable income provide estimates for 27 EU countries of income components (taxes and benefits) by household income decile group as well as inequality and poverty indicators before and after taxes and benefits and marginal effective tax rates. ▶ https://www.euromod.ac.uk/using-euromod/statistics
Living Standards Measurement Study (LSMS), World Bank Central Microdata Catalog	Household survey programme focused on generating high-quality data, improving survey methods and building capacity. ▶ http://microdata.worldbank.org/index.php/catalog/lsms Background: ▶ http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTLSMS/0,,contentMDK:21610833~pagePK:64168427~piPK:64168435~theSitePK:3358997,00.html
Luxembourg Income Study	Acquires datasets with income, wealth, employment and demographic data from a large number of countries, harmonises them to enable cross-national comparisons and makes them available for public use by providing registered users with remote access. ▶ http://www.lisdatacenter.org/
OECD Income Distribution Database	Income distribution and poverty data by country. ▶ http://www.oecd.org/social/income-distribution-database.htm
Socio-Economic Database for Latin America and Caribbean, Centro de Estudios Distributivos Laborales y Sociales and World Bank	Database includes statistics on poverty and other distributional and social variables from 24 Latin American and Caribbean countries, based on micro data from household surveys. ▶ http://sedlac.econo.unlp.edu.ar/eng/

Table 5: Software, coding and tools for basic fiscal incidence analysis

Source	Type of information
CEQI, Tulane University	Lustig and Higgins (2013) handbook, includes Stata code for distributional analysis. ▶ http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2366810
DAD, University of Laval	Software for distributive analysis, designed to facilitate the analysis and comparison of social welfare, inequality, poverty and equity across distributions of standard living. Its features include estimation of a large number of indices and curves that are useful for distributive comparisons as well as provision of asymptotic standard errors to enable statistical inference. Freely available online. ▶ http://dad.ecn.ulaval.ca/
Deaton, A. (1997)	*The analysis of household surveys: A microeconometric approach to development:* book that includes guidance on how to use household survey data and Stata code for distributional analysis. ▶ http://scholar.princeton.edu/deaton/surveys
ISER, Essex University	EUROMOD, tax–benefit micro-simulation model for EU that enables researchers and policy analysts to calculate in comparable manner the effects of taxes and benefits on household incomes and work incentives for the population of each country and for EU as a whole. Freely accessible after securing permission to use required micro data. ▶ https://www.iser.essex.ac.uk/euromod/using-euromod/access
IFS	LATAX: can quantify revenue and distributional impact of tax reforms under the assumptions both that individuals do not change their behaviour as a consequence of changes in taxes and that individuals react to these changes along specific margins. ▶ http://www.ifs.org.uk/publications/8014
World Bank	ADEPT: uses micro-level data from various types of surveys (e.g. household budget surveys, demographic and health surveys, labour force surveys) to produce tables and graphs. ▶ http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTPROGRAMS/EXTADEPT/0,,menuPK:7108381~pagePK:64168176~piPK:64168140~theSitePK:7108360,00.html
World Bank	POVCAL: calculates poverty and inequality measures from grouped distributional data. ▶ http://iresearch.worldbank.org/PovcalNet/index.htm?0,5

What is basic fiscal incidence analysis?

BIA of taxes and transfers identifies who pays taxes and receives an in-kind or income transfer and describes the welfare impact of government taxation and spending. It typically uses individual- or household-level data and a combination of evidence and assumptions about who pays taxes and receives transfers and their costs to analyse the incidence and distributional impact of policy on individuals or households.

BIA displays some strengths:

- Its results, revealing how much of government spending reaches specific population groups (e.g. the poor) and/or how much tax they pay, can be quite easily understood. The simplicity of such results – for example 'group k pays x% of tax j' – is attractive to a broad public interested in economic policy. Findings can be simple to communicate in either numeric or graphical form. For this reason, they can help inform policy discussions and policy change (Demery, 2003).

- Basic incidence can be comparatively simple to calculate. Getting the data can present challenges. In particular, information relevant to the study of certain taxes and transfers may not be collected by household income and expenditure surveys, requiring a combination of additional data sources and reliance on assumptions. However, once the data are obtained, the technique can be readily applied.

This simplicity is associated with trade-offs and limitations that need to be taken into account when considering BIA studies and interpreting their findings. These include the following:

- Because it does not take into account behavioural responses to a tax or transfer change, basic fiscal incidence analysis provides a first-order approximation of a tax and transfer system's incidence.

- The reliance on simple assumptions about incidence of specific taxes and transfers – for instance concerning how statutory taxes translate into economic incidence – can lead to misleading results. For example, when studies ignore tax avoidance, even when the ratio of actual taxation to expenditures is a small fraction of the amount the statutory rates suggest should be collected, they may misrepresent what happens in practice.

> "
> BIA of taxes and transfers identifies who pays taxes and receives an in-kind or income transfer and describes the welfare impact of government taxation and spending.
> "

- BIA studies may seek to be more or less comprehensive in their treatment of government transfers and taxes but may manage to include only some, meaning they are not exhaustive. Studies aiming to achieve high coverage may make some fairly heroic assumptions to assign expenditures to individuals or households and to determine tax incidence.

- BIA says little or nothing about why incidence outcomes are what they are. It can be helpful in identifying problems, but not particularly in providing solutions. BIA is usefully viewed as one input into policy analysis that goes into greater depth on public revenue and expenditure and household demand and use of services (Demery, 2003; van de Walle, 1996).

Main methodological issues

The basic fiscal incidence methodology implies three basic steps:

1 define a welfare indicator and order individuals/households according to it

2 estimate the transfers from each programme or expenditure category and the tax burden for each individual/household

3 study the distribution of the programme's benefits and the tax burden according to the ranking of individuals/households obtained in Step 1.

These steps involve a number of decisions and dimensions across which studies vary. These in turn can lead to different evaluations of poverty and inequality and to different results on policy impact. For this reason, they need to be carefully identified and taken into account when designing a study or approaching an existing one. For example, an analyst must ask: What is the unit of analysis? How is income adjusted for unit size and composition? What are the taxes and transfers captured by the study? When reporting empirical findings, the answers should be clearly signalled (e.g. distribution of total household income among households or of household income per equivalent adult among persons).

Table 6 provides a checklist, additional summary information and examples of the types of questions that should be raised.

Table 6: Methodological issues in basic fiscal incidence analysis

Issue	Main points
✅ Unit of analysis and inter-unit comparisons	Individual, family or household? Are equivalence scales used to compare income units of different size and composition? Is the same metric applied to both cash and non-cash benefits?
✅ Time period	What is the time period analysed? A point in time (e.g. a year), the lifetime?
✅ Measure of welfare by which units are ranked	Incidence analysis can use income or consumption (per capita or equivalised) to measure individual/household welfare. Ideally, use both and test the sensitivity of findings using both income and consumption measures.
✅ Population grouping and type/level of disaggregation of analysis	Population groups are usually defined as quintiles or deciles of equivalent household income or consumption, although other groups may also be employed (e.g. male/female, urban/rural). Results expressed in terms of distribution across income/expenditure per capita groups ranked from poorest to richest can be further disaggregated, e.g. across regional, gender and ethnic groups.
✅ Coverage of taxes and expenditures	What taxes and transfers are taken into account by the study? How comprehensive is policy coverage? Direct taxes and transfers are commonly included in BIA. Are indirect taxes and in-kind transfers included?
✅ Incidence assumptions	Who pays tax and who receives transfers? Are tax burdens assumed to be shifted to others, e.g. corporation taxes? Are health and education transfers assumed to be incident on users or potential users of the services?
✅ Valuation	What is the assumed value of taxes paid and benefits received? Are transfers valued at the cost of provision by government? Is the value of taxes measured in terms of the dollar value of taxes collected, value to consumers of the service or some other welfare measure? In the case of health services, is their value based on insurance premia approach or on actual usage recorded in micro data?
✅ Measure of redistributive impact of government	What is the analysis measuring? Is it assessing the average incidence of a tax or benefit or the incidence on the margin, e.g. the distribution of an increase in the spending of public education? What measures are used? Vertical equity measures such as the Gini coefficient? Measures concerned with re-ranking, concentration curves or concentration coefficients?

Source: Author.

For some of the issues listed above, the appropriate choice will depend on the precise policy questions asked and the country/policy context. For example, the most appropriate way to classify contributory cash transfers or of measuring the benefits of public health services is still contested and is context-specific (more on this below).

The remainder of this section discusses the following methodological issues in greater detail, provides guidance on the options available and examples to illustrate these:

- income concepts and coverage of taxes and expenditures

- welfare measure by which units are ranked

- unit of analysis and equivalence scales

- determining the incidence of spending and taxes

- measuring the incidence and distributional impact of taxes and transfers

- disaggregating basic incidence analysis: integrating gender

Income concepts and coverage of taxes and expenditures

A common technique used to estimate the distributional effects of taxes and transfers is comparison of the distribution of different income concepts. One of the most commonly employed distinctions is that between 'market' or 'original' income and 'disposable' income. The first reports 'primary' income from labour and capital and before taxes and government transfers. Disposable income is defined by subtracting *direct* taxes (e.g. personal income tax) and adding *direct* public transfers (e.g. social assistance cash transfers) to market income. The comparison of the distribution of 'market' income with that of 'disposable' income provides an indication of the distributional effect of *direct* taxes and transfers.

In practice, empirical studies may include more or fewer income sources, taxes and public spending within each income category. Examples of the ways the definitions of income concepts vary can be found by comparing the recommendation on income concepts of The Canberra Group in 2001, those adopted by the OECD (2008; 2011) and by the Commitment to Equity Initiative. The latter are presented in Figure 4.

It is common for BIA studies on high-income countries to focus on market and disposable income concepts, in part because direct taxes and transfers play an important role in these countries in terms of their share of government revenue and social spending respectively. However, the concentration on market and disposable income comparisons may give a false picture of the extent and profile of redistribution achieved by public spending and taxation (Aaberge et al., 2010; Harding et al., 2007; Paulus et al., 2009). On the taxation side, when indirect taxes aren't considered in analyses for countries that are heavily reliant on indirect taxes, this may mean the majority of government taxation is not taken into account in the redistributive picture. On the spending side, when public expenditure on health, education, care and housing is not incorporated in the analysis, a significant share of public spending is not captured. Such considerations are especially important in the context of low- and middle-income countries, where indirect taxes and in-kind transfers in the form of education and health spending constitute a high share of revenue and social spending (see Figure 1).

Adjustments to the 'market' and 'disposable' income definitions to include additional categories of spending and taxation beyond direct taxes and transfers lead to additional income concepts. The addition of in-kind transfers to disposable income definitions yields the 'adjusted disposable' income concept of the Canberra Group (2001) and the OECD's 'extended' income definition (OECD, 2011). CEQ defines 'post-fiscal' income, obtained by subtracting indirect taxes and adding indirect subsidies to disposable income and 'final' income to include in-kind transfers and user fees – see Figure 4 (Lustig and Higgins, 2013).
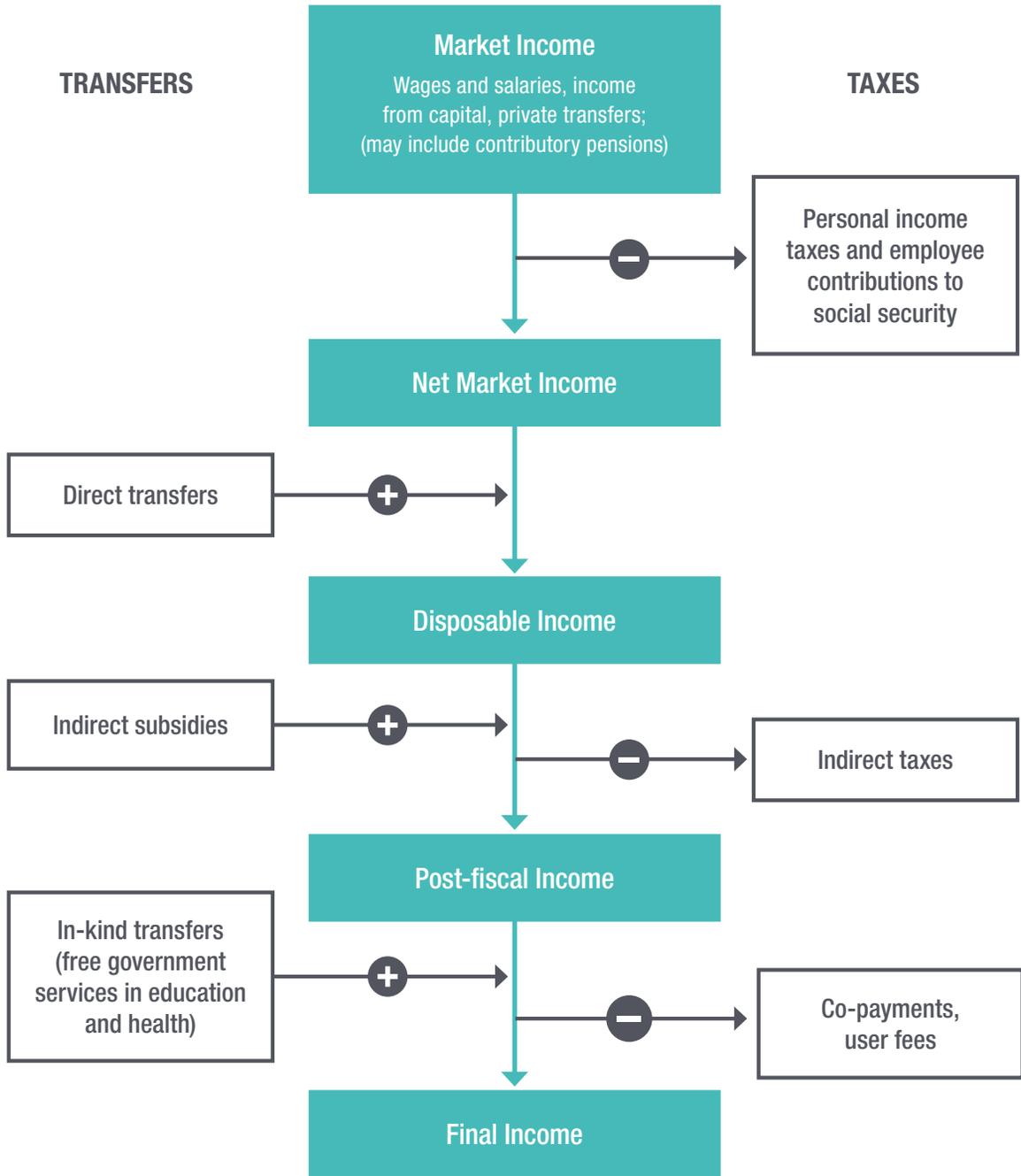
Studies also vary depending on how particular income sources or tax expenditures are treated. For some incomes in particular, their allocation to specific income categories remains a disputed matter. An example that is especially relevant to social protection analysis concerns whether contributory pensions are included as market income (when considered as deferred income) or as a government transfer. Particularly in systems with a large subsidised component, the first option is preferred over the latter (see Barrientos, 2012; Lindert et al., 2006; Lustig and Higgins, 2013). Sensitivity analyses can be carried out to test the extent to which variations in this underlying assumption matters (e.g. Lustig et al., 2013, count contributory pensions as part of market income and carry out sensitivity analysis in which pensions are classified under government transfers).

> "
> For some incomes the allocation to specific income categories remains a disputed matter. An example that is especially relevant to social protection analysis concerns whether contributory pensions are included as market income or a government transfer.
> "

Figure 4: Definitions of income concepts – a stylised presentation

TRANSFERS

TAXES

Market Income
Wages and salaries, income from capital, private transfers; (may include contributory pensions)

– Personal income taxes and employee contributions to social security

Net Market Income

Direct transfers +

Disposable Income

Indirect subsidies + – Indirect taxes

Post-fiscal Income

In-kind transfers (free government services in education and health) + – Co-payments, user fees

Final Income

Source: Lustig and Higgins (2013).

Welfare measures by which units are ranked

The welfare measure by which units are ranked, typically income or expenditure, is commonly determined by data availability and by the policies analysed. Some authors argue that a specific base variable is to be preferred over another in the incidence analysis of specific policies. For example, a 2011 IFS study on the distributional effects of VAT rate structures in EU member states argues that analysing the distributional impact of VAT by measuring the amount paid as a proportion of income is likely to give a misleading impression because of the ability of households to borrow or save. According to the study, a more meaningful picture of the distributional impact of VAT is obtained by measuring the amount of VAT paid as a proportion of expenditure.

Since variations in the underlying or base variable may lead to different findings, ideally, the analysis will include sensitivity tests to examine whether this is the case. For example, an OECD (2014) study of the distributional effects of VAT and excise tax systems in 20 OECD countries finds VAT systems are regressive when measured as a percentage of income but are generally either proportional or slightly progressive when measured as a percentage of expenditure.

Unit of analysis and equivalence scales

Empirical analysts have to choose the unit of analysis, depending on the data available and the policies analysed. A basic distinction is between individuals and households. A household may be defined as people living at the same address. Other definitions of units include families of related adults and dependent children and spending units defined as individuals pooling their income and sharing a consumption budget.

While there may be good reasons for using the household as the unit of analysis, some types of analyses demand individual-level analysis and data. For example, if there is substantial inequality within a household, looking at individual income is preferable. Interest in examining the incidence and distributional impact of fiscal policy on particular population groups and disaggregating BIA by, for instance, age, ethnicity, geographic area and gender, warrants use of individuals as units of analysis.

One option used to define individual-level income or expenditures is to divide total household income/expenditure by the number of people in the household, yielding per capita household income/expenditure. Although this is common practice, it potentially conceals variations in

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> Some types of analyses demand individual-level data. For instance, to examine the incidence of fiscal policy by characteristics such as age, gender and ethnicity, individual-level data are preferable.
> "

need and in income allocation/expenditure patterns across individuals because it assumes all members of a household enjoy the same level of well-being and household resources are shared equally among members (Glick et al., 2004).

Another option is to rely on equivalence scales, a tool used to take different needs of units of different size and composition into account. These compute per person 'equivalised' income or expenditures instead of per capita household income/expenditures and can be designed and adjusted to take the extra needs of individuals into account. A number of adult equivalence scales have been devised. Examples include the McClements scale, the OECD equivalence scale, the OECD modified scale, the square root scale. Both the methods for deriving equivalence scales and the normative assumptions made by them are subject to considerable debate, and there is no "correct" scale for general use. The choice of scale depends on assumptions about economies of scale, judgements about different individuals' needs, data constraints and general conventions to ensure comparability of results (Chanfreau and Burchardt, 2008). In practice, using per capita household expenditure is sometimes preferred over an equivalence scale approach since it may be thought to be somewhat less arbitrary.

One of the motivations for using equivalence scales in BIA is to capture variations in need and utilisation of services across the income or consumption distribution. BIA results on the 'equalising' effect of certain categories of spending, such as in primary education (revealing that poorer households gain larger shares in primary education than higher-income households), may reflect the concentration of higher need for services among low-income groups, for instance as a result of the disproportionate share of primary school-age children in such groups (Demery, 2003). By ignoring the question of demographic and needs variations across socioeconomic groups, studies may overstate the 'equalising' effect of social spending. A number of studies of social spending that adjust equivalence scales to take the extra needs of households for education and health services into account find that the redistributive effect of in-kind transfers declines considerably, although it is not eliminated entirely (e.g. for EU countries see Aaberge et al., 2010 and Paulus et al., 2009b).

Determining the incidence of social spending and taxes

Tax incidence analysis consists in the description of a person's/ household's loss in real income resulting from the imposition of a tax and shows how that loss is distributed across units. Transfer incidence analysis measures the benefit obtained by the users of a public service or the beneficiaries of a transfer. It typically combines the cost of providing public services with information on their use to show how the benefits of social spending are distributed across the population (Castro-Leal et al., 1999; Demery, 2003; Sahn and Younger, 2003).

The data requirements and complexity of the assumptions required to estimate incidence vary depending on the tax and spending instrument. Such differences help explain why there is a higher number of studies and more empirical evidence on the incidence of certain instruments over others. The reasons why non-cash benefits and indirect taxes are less often included in studies of income distribution include the complexity of the calculations and assumptions required to estimate their incidence (Brandolini and Smeeding, 2009).

Social spending
For government social spending that involves direct income transfers, measurement of the benefits relies on the monetary value of the benefit received, which is typically known, and the identification of the recipient can be comparatively straightforward. In contrast, the distributional analysis of in-kind transfers, government provision or subsidisation of goods and services gives rise to two types of difficulties, concerning identification of the beneficiary and the amount imputed to allocated services (Atkinson and Bourguignon, 1990; Demery, 2003).

There are two general approaches to allocating in-kind benefits to individuals and households: the 'actual consumption approach', which allocates the value of public services to the individuals actually using the service; and the 'insurance value approach', which allocates an equal amount of a service to everybody sharing the same characteristic, such as age, gender, etc. Reliance on one approach over the other depends on, among other things, data availability. While for some services identification of who uses particular services or benefits from a transfer is relatively straightforward, for others more detailed information is required. In these cases, studies may rely on characteristics of individuals and households rather than actual use of services on the assumption that the probability a person will access these services is the same as that prevailing for others with the same characteristics (Demery, 2003; OECD, 2011).

> " The data requirements and complexity of the assumptions required to estimate incidence vary depending on the tax and spending instrument. "

Information on who uses the service is usually obtained from a household survey (Demery, 2003). Even when the data from schools and clinics on service use are good, they are not much use for benefit incidence. One needs to find out which types of household get the service (rich or poor, male- or female-headed, size of household, occupation of members, etc.), and this information is not usually obtained from clinics and schools.

The second challenge in determining the incidence of social spending concerns calculating the amount imputed to allocated services. Studies on the distributive impacts of government services may value these: a) at their production costs, at their opportunity cost in the private sector or at household's willingness to pay (a basic definition utilised for the unit cost of providing a service is as total government spending on a particular service divided by the number of users of that service); or b) by what an individual would have spent if similar services had been bought on the market or on the willingness to pay for them. Concerns about the production costs approach include that it does not take into account variations in need across income groups, does not consider service quality and may not reflect actual valuation by beneficiaries (Atkinson and Bourguignon, 1990; OECD, 2008; Sahn and Younger, 2000).

An important distinction in BIA studies is whether they take variations in need across the income or consumption distribution into account when assessing transfer incidence. As discussed above, the 'equalising' effect of certain categories of spending may reflect the concentration of higher need for services among low-income groups. One option for tackling this issue is the use of equivalence scales to reflect variations in need across individuals or households.

Taxes

A central issue in determining the incidence of taxes concerns the distinction between statutory incidence (the legal liability to pay the tax) and economic incidence (those whose real purchasing power declines because of the tax).

Tax studies must decide on the appropriate tax incidence 'shifting assumptions' to make and make explicit the assumptions about shifting and final incidence. Where there is no consensus, the appropriate approach is to conduct sensitivity analysis to check how the results differ under different assumptions (Claus et al., 2012; Zolt and Bird, 2005). For some taxes in particular, there is no clear consensus on where the economic burden of taxes falls. Unlike the broad agreement on the approach to be used when estimating the incidence of personal income tax, no such agreement exists about how to model incidence of indirect taxes on individuals (Harding et al., 2007; Warren, 2008).

The standard assumptions adopted in tax incidence analysis can be summarised as follows (Boadway and Keen, 2000; Claus et al., 2012; Gemmell and Morrissey, 2003; Sahn and Younger, 2003):

- Personal income tax: this is typically assumed not to be shifted and to be paid by the recipients of income.

- Payroll taxes and social insurance contributions: employer contributions are typically assumed to be fully shifted to workers, although some studies do not make this shifting assumption and assume the employers pay; employee contributions are assumed to be paid by employees.

- Corporate income tax is shifted backward to capital owners or forward to workers' wages or the consumers of taxed products. It is usually expected that the economic incidence of corporate tax will fall on less mobile factors of production, typically labour (i.e. workers) rather than on capital (i.e. shareholders) and there is some empirical evidence to support this.

- Taxes on goods and services, including several forms of sales taxes, VAT and excises, are assumed to be shifted forward to consumers.

- Export taxes are assumed to fall on exporters in most cases.

> " A central issue in determining the incidence of taxes concerns the distinction between statutory incidence and economic incidence. "

- Property tax: some studies assume there is no shifting, with the tax paid by the owners of the property or shifted to all owners of capital. Others assume the forward shifting of property taxes to renters or users of the property.

Measuring the incidence and distributional impact of taxes and transfers

Studies on the incidence and distributional impact of taxes and transfers report different measures, including those designed to capture the progressivity of benefits and taxes and quantify the amount of redistribution achieved. Progressivity measures do not quantify the extent of redistribution through the tax and transfer system but provide information on a component of redistribution, alongside the size of an instrument and the extent of re-ranking when the instrument is applied.

Is a transfer or tax progressive?

Progressivity comparisons may be made across different taxes and transfers, yielding a ranking, in terms of progressivity, of alternative instruments. They are also made between specific taxes or transfers and the underlying income or expenditure distribution to provide an indication of their contribution to changes in the overall income or expenditure distribution.

Public spending is said to be progressive in:

- *absolute* terms if those in the poorest quintiles receive a higher total share of the programme's transfers than their population share (i.e. if the bottom 40% of the population receives more than 40% of total programme benefits). In such cases, spending is also said to be 'pro-poor'.

- *relative* terms if lower-income groups get a larger share of the benefits from government spending than they do of the underlying income or consumption distribution.
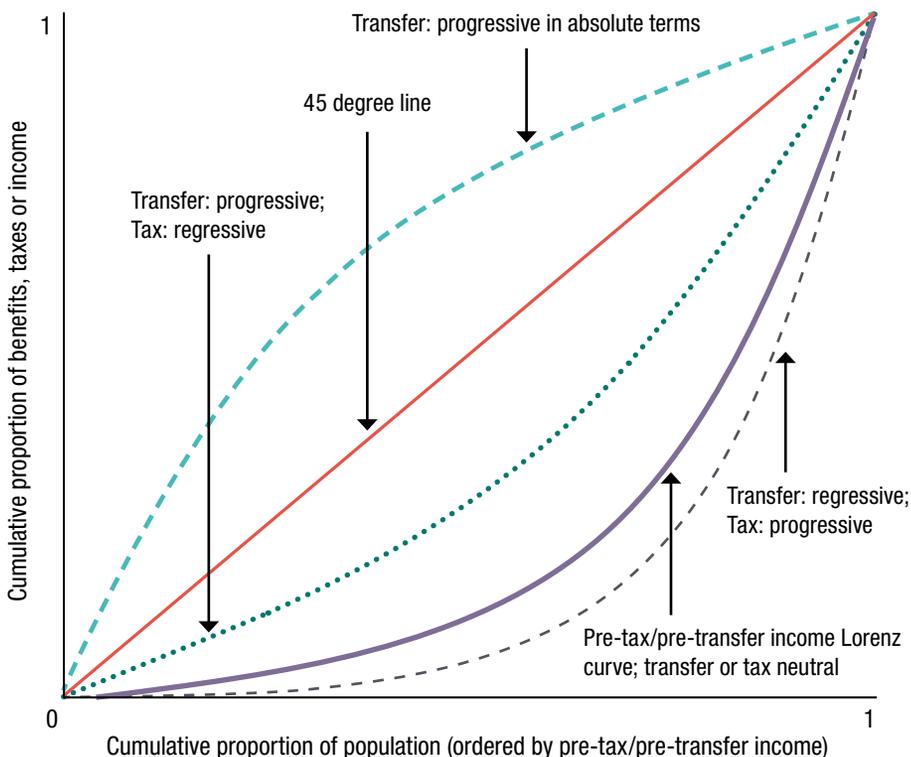
A social transfer may be regressive in absolute terms but less regressive – more equally distributed – than the distribution of market income and thus hold potential for reducing overall inequality. A tax is said to be progressive when the share of taxes in gross income increases with the level of income, and when the poor pay proportionately less tax than their share of income or expenditure.

The graphical representation of tax and transfer incidence results

The graphical representation of tax and transfer incidence results can be helpful in illustrating these definitions (see Figure 5). Concentration curves typically plot post-tax income, expenditure or tax payment against the proportion of the population ranked by pre-tax income. The Lorenz curve uses the same income definition to rank both axes.

Spending is progressive in absolute terms if the concentration curve for the benefits is above the 45-degree line. Comparisons of the distribution of transfers and taxes with the distribution of income or expenditures (Lorenz curve) reveal how progressive or regressive they are in relative terms. Concentration curves of transfers lying above the Lorenz curve are progressive in relative terms; they indicate that the subsidy is more equally distributed than income or expenditure. If a tax is unambiguously progressive, its concentration curve will lie wholly outside the Lorenz curve for income (Demery, 2003; Gemmell and Morrissey, 2003).
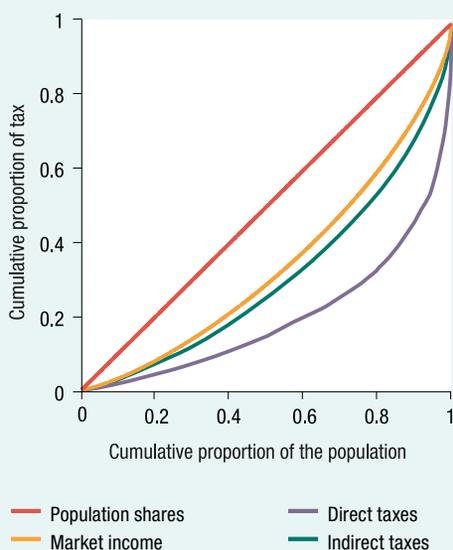
Figure 5: Concentration curves for progressive and regressive taxes and transfers

Source: Lustig and Higgins (2013).

Box 4: Incidence of taxes and transfers – examples from Ethiopia and South Africa
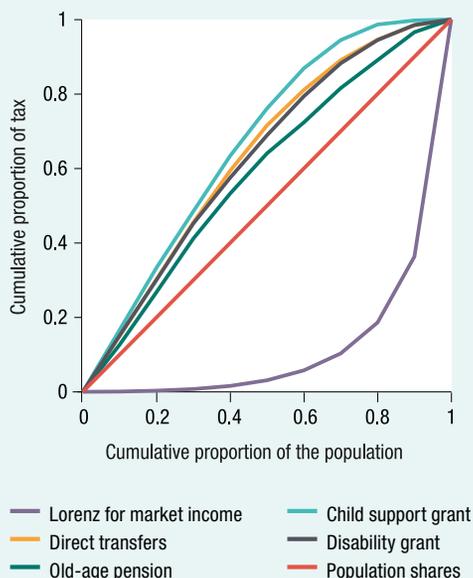
Figure A below plots the concentration curves of direct and indirect taxes in Ethiopia in relation to the Lorenz curve for market income. The concentration curves of both direct and indirect taxes are further away from the 45-degree line than the Lorenz curve for market income, which indicates they are both progressive and decrease inequality. Indirect taxes are less progressive than direct taxes.

Figure A: Ethiopia: direct and indirect tax concentration curves and Lorenz curve for market income

Figure B: South Africa: concentration curves for direct transfers and Lorenz curve for market income

Source: World Bank (2014b).

Source: Inchauste et al., 2015

In aggregate, taxes are low and progressive compared with other countries, but, because Ethiopia is a poor country, the share of the tax bill paid by households living under $1.25 PPP a day is high, highlighting the fundamental challenge of pro-poor revenue generation in a low-income country (World Bank, 2014b).

Figure B plots concentration curves for South Africa's main direct income transfers. It shows direct transfers are progressive in absolute terms and that the Child Support Grant is more progressive than average direct cash transfers as a whole. The Disability Grant is as progressive as the average for the bottom deciles. Although somewhat less progressive than the other three, the Old-Age Pension is also progressive in absolute terms. These results partly reflect the fact that the share of households with elderly and school-age children is higher at the bottom of the distribution. The bulk of its cash transfers go to the bottom of the income distribution: 69% of all cash transfers go the bottom 40%; about 66% of the bottom decile households have children under 18 years of age, compared with 37% in the top decile (Inchauste et al., 2015).

Measuring the poverty and inequality impact of taxes and transfers

A common approach used to estimate the impact of taxes and transfers on income poverty is to subtract the value of transfers and add taxes to household or individual income. This provides a static counterfactual of what household/individual income would be without the transfers it receives and the taxes it pays. This approach is commonly applied to poverty headcount and poverty gap measures to yield an indication of policy impact on poverty. It is also applied to income inequality measures to capture the level of redistribution taxes and transfers achieve. In this case, a common measure is given by the difference between the Gini index for different income definitions (e.g. market and disposable incomes to capture the effects of direct taxes and transfers). This type of comparison provides only a crude estimate of the actual degree of fiscal redistribution. As explained above, it does not take potential behavioural and other second-round effects of taxes and transfers into account. Techniques that address these shortcomings typically require strong assumptions and display higher data requirements. On the contrary, the difference in the Gini indexes for different income definitions, such as market and disposable incomes, is an 'intelligible, if imperfect, way to gauge the level of income redistribution in a country' (Brandolini and Smeeding, 2009).

Disaggregating basic incidence analysis: integrating gender

BIA lends itself to disaggregation by dimensions of the underlying population of interest, such as those of gender, age, geography and ethnicity. Here, we review how analysis disaggregated by gender can be implemented. Women are more likely than men to be poor, so understanding both the incidence of taxes and transfers by gender and how gender gaps in tax and transfers vary across the welfare distribution is important. In addition to being helpful in throwing light on the gender issue itself – and variations in the incidence of transfers and taxes between males and females – this type of analysis can shed light on the more aggregate findings of BIA and provide examples of explanations of the patterns underlying the aggregate findings.

In BIA that describes how the gender gap varies across the expenditure distribution, the most common, and simplest, presentation of results is to report the share of benefits each group receives or the share of taxes each group pays, with groups defined across the expenditure distribution and by gender, for example by quantile and gender (either at the individual level or at higher levels of aggregation, such as head of household). There are several challenges to implementing this analysis in practice. Challenges are both conceptual and empirical. How to

> " The difference in the Gini indexes for different income definitions, such as market and disposable incomes, is an 'intelligible, if imperfect, way to gauge the level of income redistribution in a country' "

reconcile individual and household level concepts is one challenge. Another one is posed by lack of disaggregated data on taxpayers. Boxes 5 and 6 below showcase examples of gender-disaggregated analysis of transfers and taxes.

One of the biggest methodological challenges in estimating the gender incidence of taxes and transfers is how to reconcile individual- and household-level concepts (Casale, 2010). This is because sex is an individual attribute, but expenditure information is collected at the household level, and often occurs at the household level.

As highlighted above, it is common practice in the literature estimating the incidence of taxes and transfers by income to assume equal sharing of expenditure in the household and in turn equal sharing of the burden of taxation across individuals in the household. However, this method is especially unsatisfactory for a study of the gender impact of taxes, given that the intra-household allocation of resources cannot be assumed to be equal (Casale, 2010).

> " In addition to highlighting the gender issue itself – and variations in the incidence of transfers and taxes between males and females – this type of analysis can help explain the more aggregate findings of BIA. "

Box 5: Gender differences in education transfers – example for Kenya

Kenya: gender differences in education sector benefit incidence
(% of total subsidies for both sexes, male and female)

	Primary			Secondary			Tertiary			All education
	Both	M	F	Both	M	F	Both	M	F	Both
Poorest quintile	24.7	12.8	11.9	9.5	4.8	4.7	1.9	1.9	0.0	17.4
Quintile 2	25.2	12.9	12.3	15.9	9.2	6.8	2	1.4	0.6	19.3
Quintile 3	21.6	10.8	10.9	21.9	12.7	9.2	7.0	5.8	1.2	19.4
Quintile 4	18.2	9.3	9.0	25.5	12.4	13.1	19.1	15.6	3.5	20.2
Richest quintile	10.2	5.1	5.1	27.2	13.6	13.6	70.0	37.6	32.4	23.7
Kenya	100	50.9	49.2	100	52.7	47.4	100	62.3	37.7	100

Source: Demery and Gaddis (2009).

While boys have only a slight advantage over girls in the distribution of the primary education budget, biases against girls are greater for the other subsectors. Girls gain 47% of the total secondary budget and just 38% of the tertiary budget. Gender inequality in secondary education seems to be because of girls in quintiles 2 and 3 being particularly disadvantaged. Similarly, gender biases in the distribution of the tertiary education budget appear to come mainly from a couple of quintiles – in this case quintiles 3 and 4. For the education sector overall, boys gain 53% of the budget, compared with 47% that accrues to girls.

Box 6: Gender differences in indirect tax incidence

To evaluate gender equality in taxation, Grown and Valodia (2010) develop a conceptual framework based on the Convention for the Elimination of All Forms of Discrimination Against Women (CEDAW). They apply the methodology to household-level data from eight countries. The table below reports their findings on the incidence of indirect taxes by gender/household type.

Incidence of indirect taxes by household type

Incidence falls most heavily on:	Total indirect taxes	VAT	Excises	Fuel tax
By headship (comparing male-headed versus female-headed)				
Male-headed households	Argentina, Ghana, Mexico, Morocco, South Africa, Uganda, UK	Argentina, Ghana, Mexico, South Africa, Uganda, UK	Argentina, Ghana, India, Mexico, Morocco, South Africa, Uganda, UK[1]	Argentina, Ghana, India, Morocco, UK, South Africa, Uganda,
Female-headed households	India	India, Morocco	UK[1]	Mexico
By employment status (comparing male-breadwinner, female-breadwinner, dual-earner, none-employed)				
Male-breadwinner households	Argentina,[2] Ghana, Mexico, South Africa, Uganda	Argentina,[2] Ghana, Mexico, South Africa, Uganda	Argentina, Ghana, Mexico, Morocco,[2] South Africa, Uganda	Ghana,[2] Uganda, Morocco[2]
Female-breadwinner households				Mexico
Dual-earner household	Argentina, Morocco	Argentina,[2] Mexico, Morocco, UK	Morocco[2]	Argentina, Ghana,[2] Morocco,[2] South Africa, UK
No-employed	UK		UK	
By household sex composition (comparing male-dominated, female-dominated and equal numbers)				
Male-majority households	Argentina, Ghana, India, Mexico, Morocco, South Africa, Uganda, UK	Argentina, Ghana, India, Mexico,[3] South Africa, Uganda	Argentina, Ghana, India, Mexico, Morocco, South Africa, Uganda, UK	Argentina, Ghana,[3] India, Uganda, UK
Female-majority households				Mexico
Equal-number households Proportional		Mexico,[3] UK, Morocco		Ghana,[3] South Africa Morocco

Notes: In Mexico, fuel tax was a subsidy and therefore the cells indicate which household type received less subsidy.
1 The differences in incidence for female-headed and male-headed households are not statistically significant.
2 The differences in incidence between male-breadwinner and dual earners are not statistically significant.
3 The differences in incidence between male-majority and equal number households are not statistically significant.

The study finds that male-headed households bear the highest burden of overall tax incidence, in all countries except India, where female-headed households bear the heaviest incidence. The result is similar for VAT (except in India and Morocco), excises (except in the UK) and fuel taxes (except in Mexico). By employment classification, incidence of indirect taxes falls generally on male bread-winner households or dual-earner households. Male bread-winner households bear the heaviest incidence of total indirect taxes, VAT and excises in Ghana, Mexico, South Africa and Uganda. They also bear the heaviest incidence of fuel levies in Ghana, Uganda and Morocco. Dual-earner households bear the heaviest incidence of VAT in Argentina, Mexico, Morocco and the UK, excises in Morocco and fuel levies in Argentina, Ghana, Morocco, South Africa and the UK. Households with no employed adults bear the heaviest overall indirect tax incidence and the heaviest incidence of excise taxes in the UK. By sex composition, the results are similar. Male-majority households bear the largest incidence of indirect taxes in all countries and the largest incidence of the VAT in all countries except Morocco, Mexico and the UK.

Ideally, to conduct a gender-aware incidence analysis, data are needed on expenditure by individuals and to understand the gender relations that produce male and female expenditure patterns. Unfortunately, this type of data are not available in most countries and the data that do exist do not have sufficient information to do a full gender analysis that includes intra-household dynamics and demand analysis (Grown, 2010).

In the absence of individual-level data, the conventional approach to incorporating gender in BIA is to disaggregate households by sex of household head. One issue with this approach is that the definition of household head is often conceptually fuzzy and empirically messy; it can conflate two concepts: the person who contributes the greatest part of household income may not be the same person who is responsible for management of household expenditure (Grown, 2010).

An example of gender-disaggregated tax incidence analysis is provided by Grown and Valodia (2010). The country studies exploit several variables available in the country datasets to identify the following household types: by headship (male- and female-headed households), by employment status (male breadwinner households, female bread-winner households and no-employed) and by household sex composition (male-dominated, female-dominated and equal numbers). Box 6 reports the summary findings of their analysis.

Drawing policy conclusions from basic fiscal incidence analysis

Basic incidence analysis provides information which is of central interest to policy makers and analysts alike. It tells us how much of government spending reaches specific population groups and how much they pay in taxes. It also provides an indication of what the direct poverty and inequality impacts of tax and transfer policies are. As an analytical tool, it is especially well-suited to evaluate policies with a marked direct impact on individuals and households such as the tax and transfer system.

Two factors should be taken into account when drawing policy implications from BIA. First, BIA says little about why incidence outcomes are what they are. It could be usefully complemented by additional analysis to help shed light on the drivers underlying the observed results. For example, as illustrated in an earlier section, the

> "
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> "

'equalising' effects of social spending may overstate the extent to which it is pro-poor as a result of demographic differences by socioeconomic group. An analysis of the variables determining the supply of and demand for a public good or service and how these vary across the welfare distribution could usefully complement BIA. Furthermore, BIA's static nature and omission of considering potential behavioural and general equilibrium effects means results evaluate the immediate or direct impact of a policy on households or individuals. Although second round effects can be complex to study, they may be sizeable and should be taken into account when interpreting BIA results, for instance by commissioning or referring to alternative distributional analyses which aim to capture such effects.

Second, by primarily considering the redistributive effects of fiscal policy, BIA does not offer a full analysis of how specific taxes and transfers perform against all their objectives. The incidence and distributional impact of taxes and expenditures as captured by BIA reveals information on the role of such policies in pursuing immediate poverty and inequality reduction objectives. However, these are typically defined in terms of redistribution across the income or expenditure distribution and for one point in time, meaning that additional redistributive policy objectives, such as those of redistribution within income groups or over time (e.g. by inter-temporal transfers) are not accurately captured. In the case of taxes, in addition to ensuring equity, objectives include economic efficiency and ease of administration to maximise revenue collection. Moreover, as this Guidance Note has underlined, the interaction between taxes and transfers may have implications for the potential establishment and strengthening of state-citizen relations and the promotion of a 'virtuous' circle between state accountability, service provision and willingness to pay taxes. The results of BIA should be viewed as one important input into the analysis of the poverty and inequality impact of tax and transfer policy, alongside evidence of the performance of tax and transfer policies against their additional primary objectives.

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> The results of BIA should be viewed as one important input into the analysis of the poverty and inequality impact of tax and transfer policy.
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Closer joint analysis of social protection and tax can (1) provide a more comprehensive picture of the poverty and inequality impact of government's fiscal policy and (2) shed light on the role of taxation in social protection financing and help identify the policy options available to raise (additional) revenue while contributing to achieving progress towards development outcomes.

This Guidance Note identified two broad areas of inquiry on social protection and tax and provided resources and references to help guide social protection analysts and practitioners interested in designing or commissioning a new study and in using findings from existing studies.

The Guidance Note has also provided more detailed guidance on BIA specifically. Compared with alternative approaches to distributional analysis, BIA can be readily implemented and leads to results that are easily communicated, including to a broad audience. Evaluating the immediate or direct impact of policy on households and individuals is important, even though initial impact may be modified by market mechanisms induced by behavioural responses. The elaboration of policy implications from BIA findings needs to include careful consideration of the policies and policy effects that BIA does not capture and could be usefully supported by additional policy analysis designed to uncover why incidence outcomes are what they are.

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