Fiscal Incidence Analysis for Ethiopia

Poverty & Equity Global Practice
Christina Wieser, Wondimagegn Mesfin,
Jia Gao

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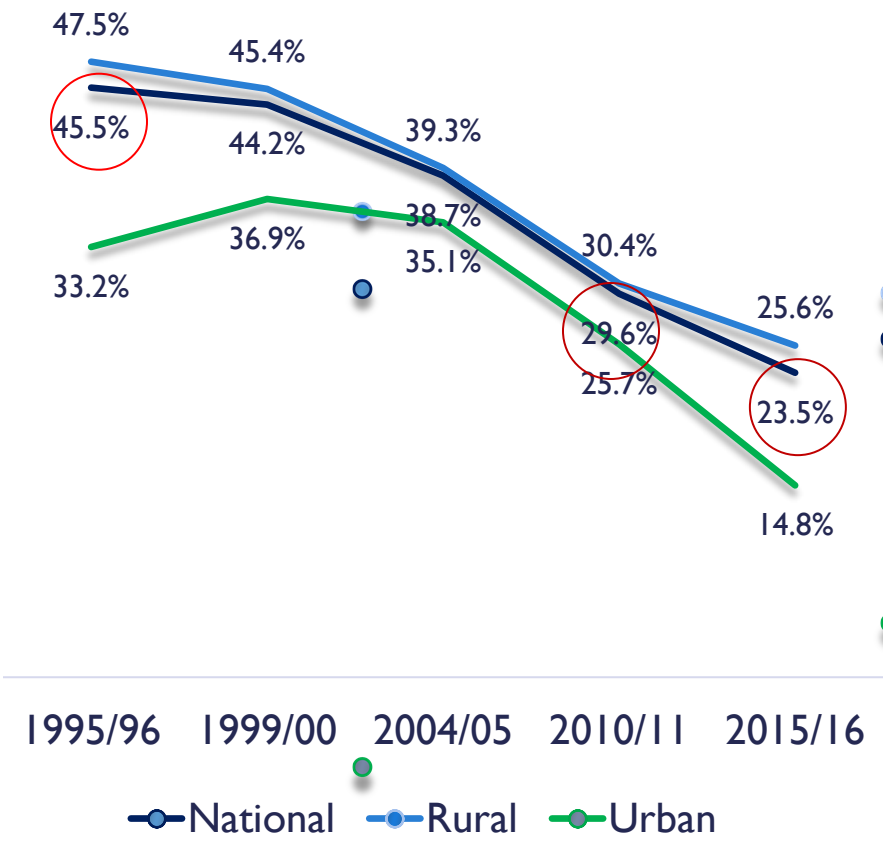
Outline

- Introduction
- Fiscal structure
- Methods and Data
- Results
- Conclusion
- Policy implications

Entry point

- Strong economic performance (before 2021) accompanied by positive trends in poverty reduction
- Challenges remain
  - A quarter of the population is still poor in 2015/16
  - Low poverty elasticity of growth - 0.33 (b/n 1997 & 2016)
  - Slower poverty reduction in rural Ethiopia (2010/11 - 2015/16)
  - Challenges to growth related to COVID-19, conflict, and global economic challenges
    - Poverty predictions show an increase in urban poverty in Oct 2021 of 33%

Poverty (headcount) trends, 1995/96-2015/16



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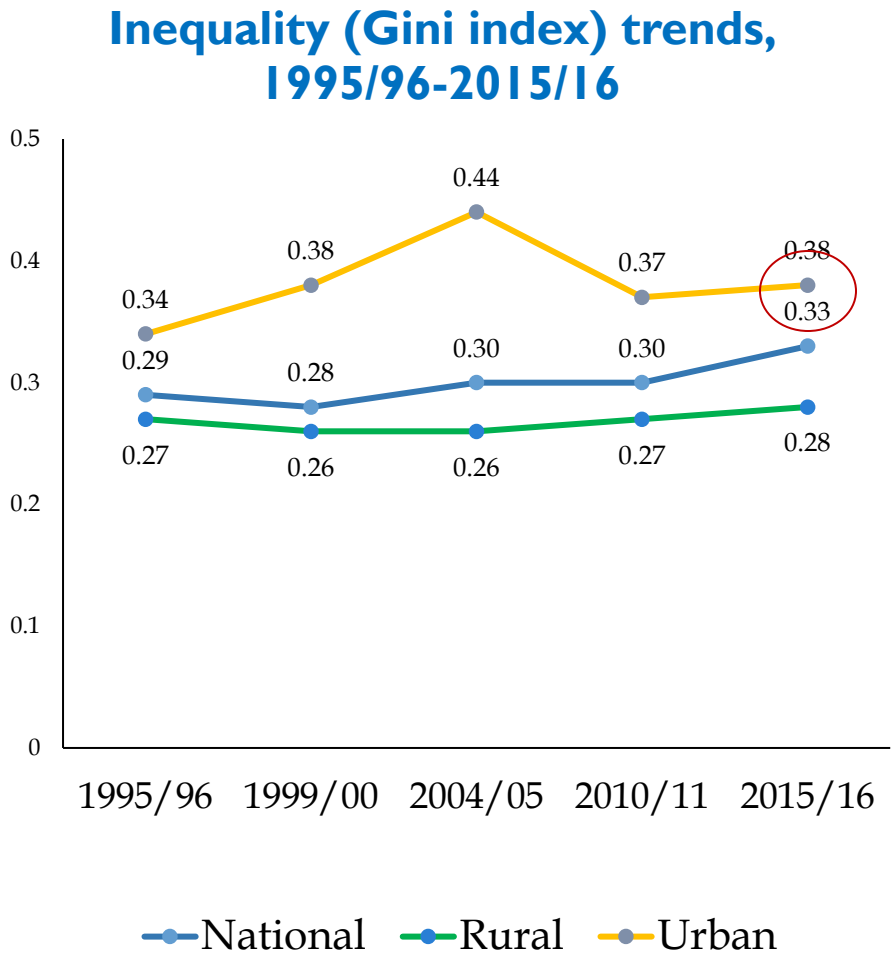
Inequality

- The national income Gini index remained around **0.30** for nearly a decade
- Ethiopia is one of the most egalitarian countries in the world
- Inequality has increased from **0.29** in 1995/96 to **0.33** in 2015/16
- Inequality increased in recent years due to urban-rural gap in consumption growth
- Inequality is estimated to have further increased during COVID-19



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Why focus on fiscal policy?

- Fiscal deficit and growing debt burden could undermine fiscal space to expand public spending to the poor
  - Fiscal deficit likely to have grown in last two years due to economic downturn and reduced scope for borrowing
- Fiscal policy could reduce inequalities and fund public services to create opportunities for all
- Tax and transfers are powerful instruments in hands of government to tackle poverty and inequality
- To provide evidence base for and bring equity lens to the decision-making process surrounding fiscal policy reforms:
  - Revision of the personal income tax rule (2016)
  - Implementation of an electricity tariff reform (2019)
  - Excise Tax Proclamation (2020)

Research questions

1) How does fiscal policy redistribute income and reduce poverty and what is the combined impact of government taxes and expenditures on inequality and poverty?

2) How equalizing, progressive and pro-poor are different fiscal interventions implemented by the government?

3) What is contribution of specific taxes and transfers to overall reduction in poverty and inequality?

4) Is there room for an increased role for fiscal policy in improving well-being of the poorest?

Fiscal Structure

Table 1. Tax revenue profile, 2015/16

Tax revenue category	ETB (millions)	Share in total tax revenue (%)	Share in GDP (%)
Total tax revenue	190,519.7	100	12.5
Direct taxes	71,843.9	37.7	4.7
Personal income tax	25,744.7	13.5	1.7
Corporate income tax	36,536.4	19.2	2.4
Agricultural income & land use fee	706.0	0.4	0.0
Rental income	1,368.8	0.7	0.1
Other direct taxes	7,488.0	3.9	0.5
Indirect taxes	118,675.8	62.3	7.8
Domestic indirect taxes	55,952.8	29.4	3.7
Import duties, surcharges, & taxes	62,722.9	32.9	4.1

Source: MoFEC (2017)

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Taxes … cont'd

- Ethiopia's tax-to-GDP ratio is **12.5%** in 2016
  - < than Ethiopia's GTP target of **15%** of GDP by 2014/15
  - < average of **19.1%** among African countries
  - < tipping point of **15%** - significant acceleration in economic growth and development
- With existing trends and no significant new measures, unlikely to meet the target of **17%** (GTP II target) by end of 2020
  - Is there updated number?
- Low level of tax revenues significantly reduces scope for fiscal redistribution
- Low tax collection performance could be due to large informal sector, poor tax-paying culture, shortcomings in tax administration (noncompliance)

Table 2. General Government Expenditure, 2015/16

	ETB (million)	Share in gov. expend. (%)	Share in GDP (%)
Total General Government Expenditure	280,893	100.0	**18.4**
General Services	55,359	19.7	3.6
Economic Development	117,204	41.7	7.7
Agriculture	31,411	11.2	2.1
PSNP	6,036	2.1	0.4
Food security	4,206	1.5	0.3
Urban Dev't and Housing	10,800	3.8	0.7
Road	41,993	14.9	2.7
Other	12,462	4.4	0.8
Social Development	98,094	34.9	6.4
Education	67,859	**24.2**	**4.4**
Health	21,760	**7.7**	**1.4**
Labor and Social Welfare	1196	0.4	0.1
Other	7,278	2.6	0.5
Other	10,236	3.6	0.7
Indirect subsidies (off-budget)	5,598	2.0	0.4

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Source: MOFEC (2017) and HCES/WMS (2015/16)

Government spending … cont'd

- Direct transfers
  - Ethiopia's flagships Productive Safety Net Programs (PSNP and since 2016 UPSNP)
  - Humanitarian food aid (HFA)
- Public spending on education
  - Captures 24.2% of total public spending (> 20% of global target) and 4.4% of GDP (<6% of global target)
- Public spending on health
  - Accounts for 7.7% of the total government spending (<15%) or 1.4% of GDP
  - Low per capita health spending (ETB 268 (US$12) than WHO estimates (US$86) as minimum amount needed to provide essential health services in SSA
- Indirect subsidies (0.4% of GDP)
  - Electricity, Wheat, Kerosene

Fiscal Interventions

- **Taxes**
  - Direct taxes: PIT, agricultural income taxes
  - Contributions to pensions and social insurance systems
  - Indirect (consumption) taxes: VAT, excise taxes

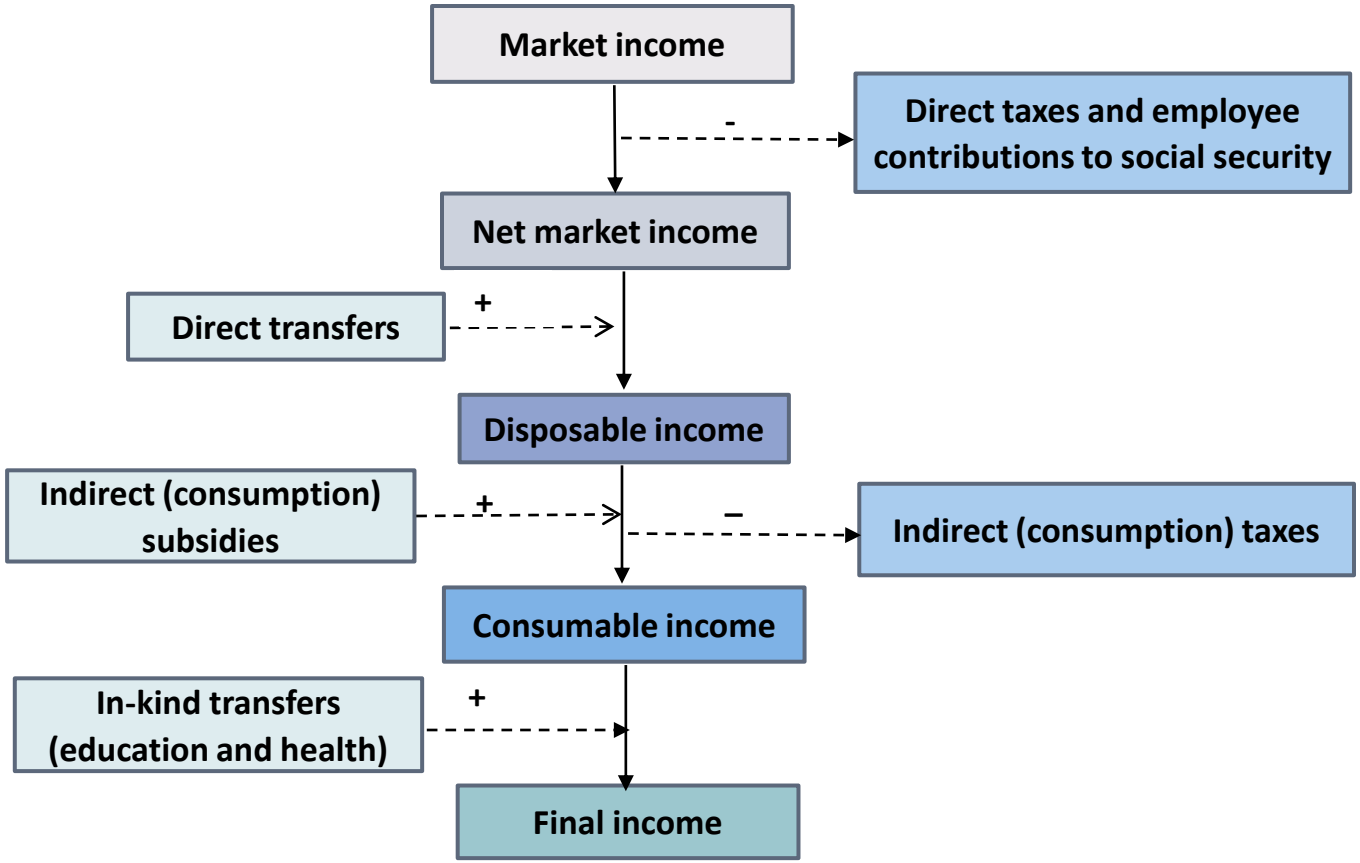
- **Transfers**
  - Direct cash transfers (PSNP, HFA)
  - Indirect subsidies
  - In-kind transfers (spending on health and education)

Methods and Data

Data

- Commitment to Equity (CEQ)/Fiscal incidence analysis (FIA) – allocate taxes and public spending to individuals so that one can compare pre-fiscal incomes with incomes after taxes and transfers
- 2015/16 HCES (consumption) and WMS (socioeconomic outcomes and access to services)
- Fiscal budget data from national income and public finance accounts (MoF) - public revenue and expenditures corresponding to 2015/16
- Other data and sources: 2015/16 Social Accounting Matrix (SAM) to construct an Input-Output (I-O) matrix
- Other CEQ studies for comparison of results with structural peers

The CEQ Framework: Construction of Income Concepts



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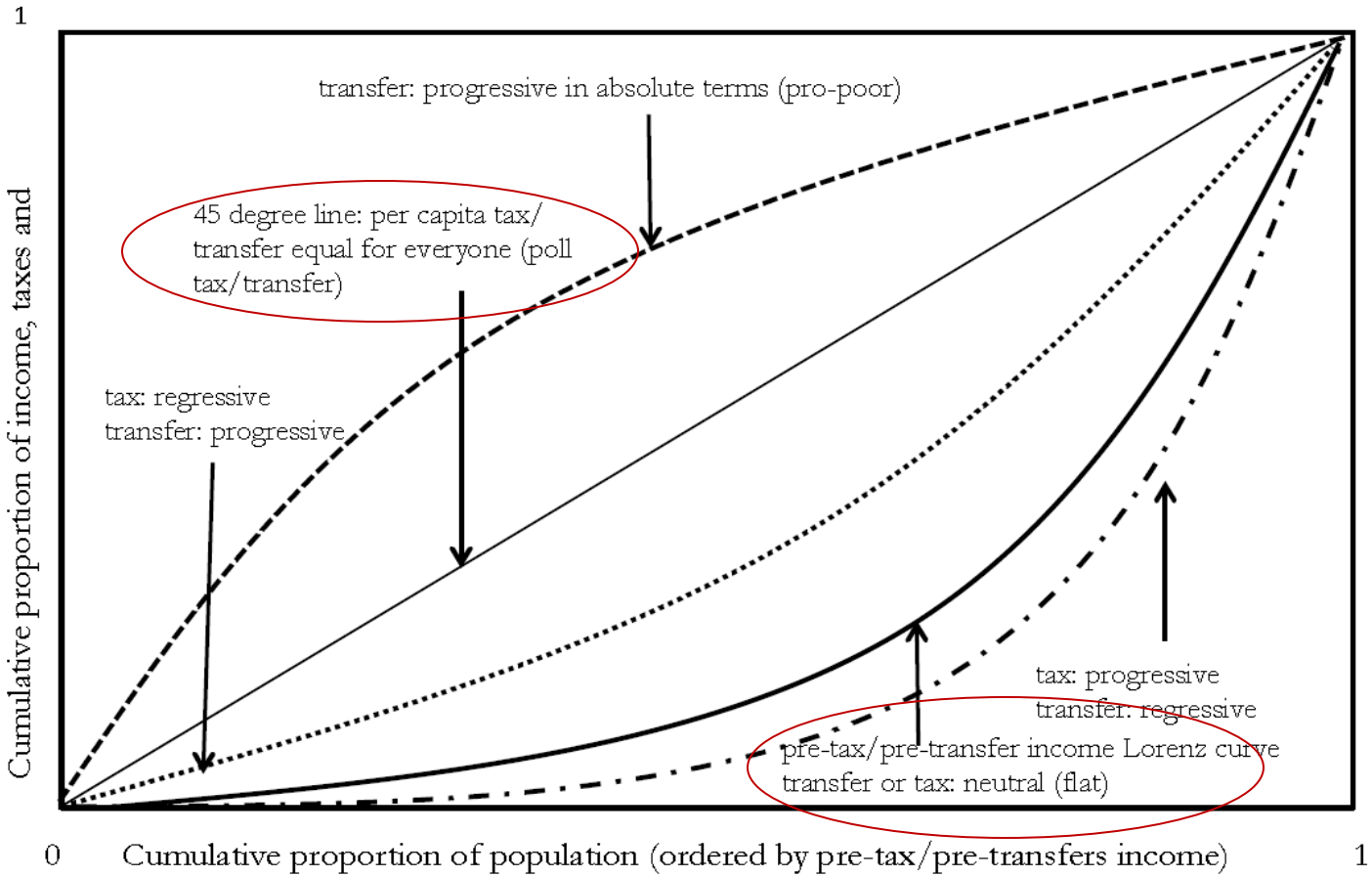
Incidence, Progressivity, and Pro-poorness



Source: Higgins & Lustig (2016); Lustig (2018)

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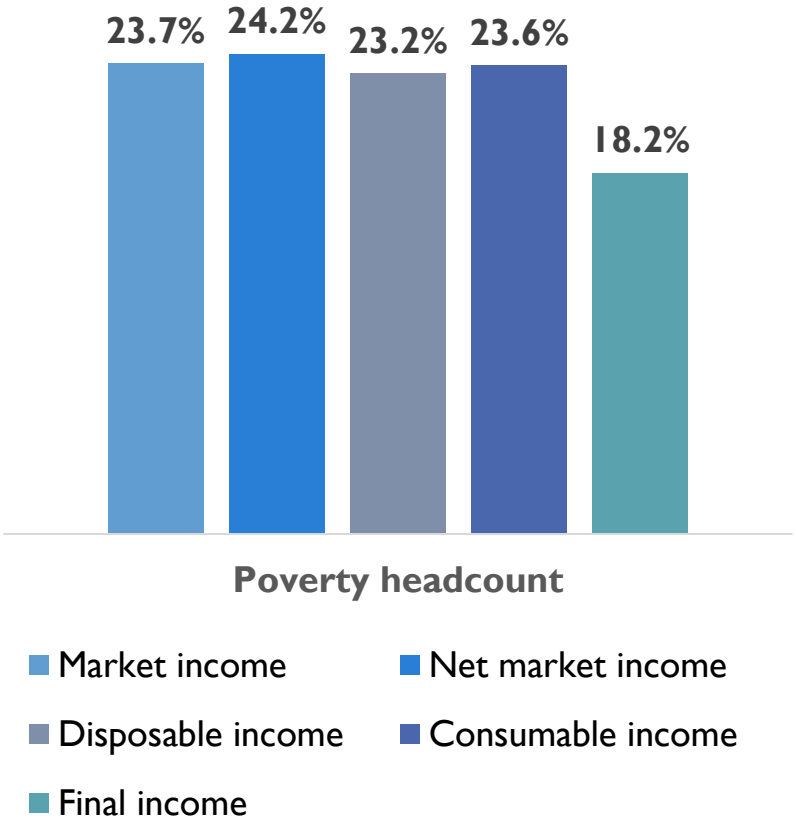
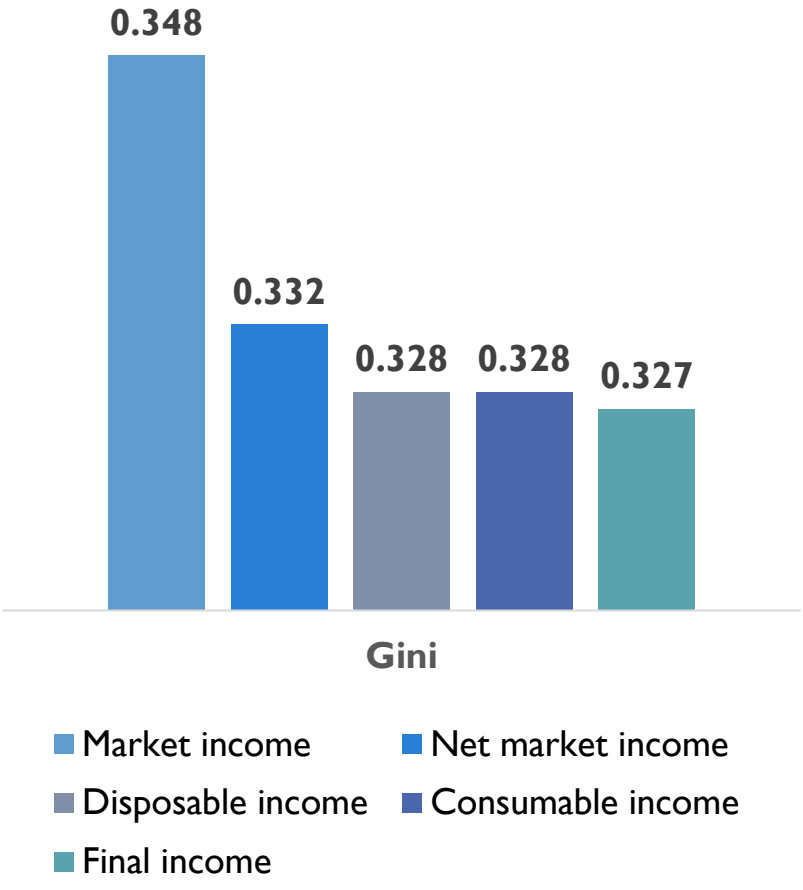
Results

Poverty and Inequality by CEQ Income Concepts (2015/16)

Poverty headcount



Income inequality (Gini)



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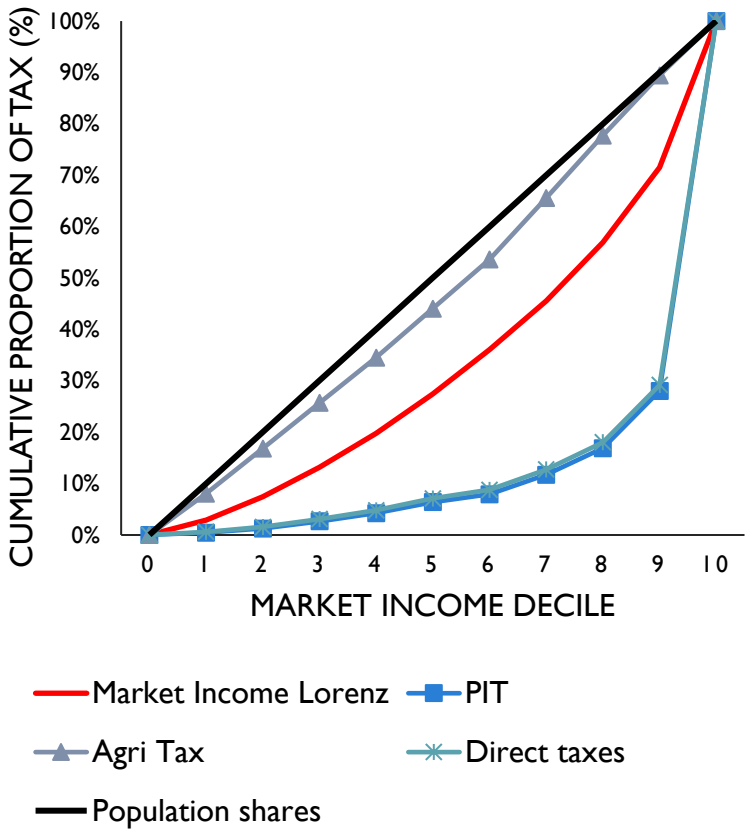
Distributional impacts of taxes and transfers

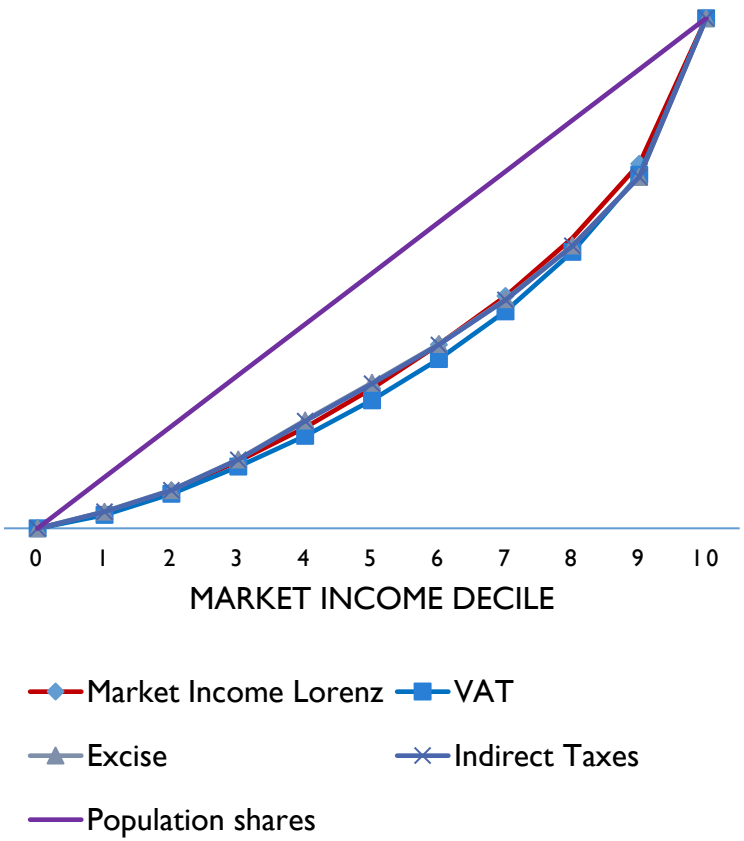
Indicator	Net market income	Disposable income	Consumable income	Final income
Headcount	↑ 0.50 (direct taxes)	↓-1.0 (dir. taxes & transfers)	↑ 0.40 (indirect taxes & subsidies)	↓-5.40 (in-kind transfers)
Gini	↓-1.60 (direct taxes)	↓-0.40 (dir. taxes & transfers)	0.00 (indirect taxes & subsidies)	↓-0.10 (in-kind transfers)

Incidence and Progressivity of *Taxes*

Direct taxes



Indirect taxes



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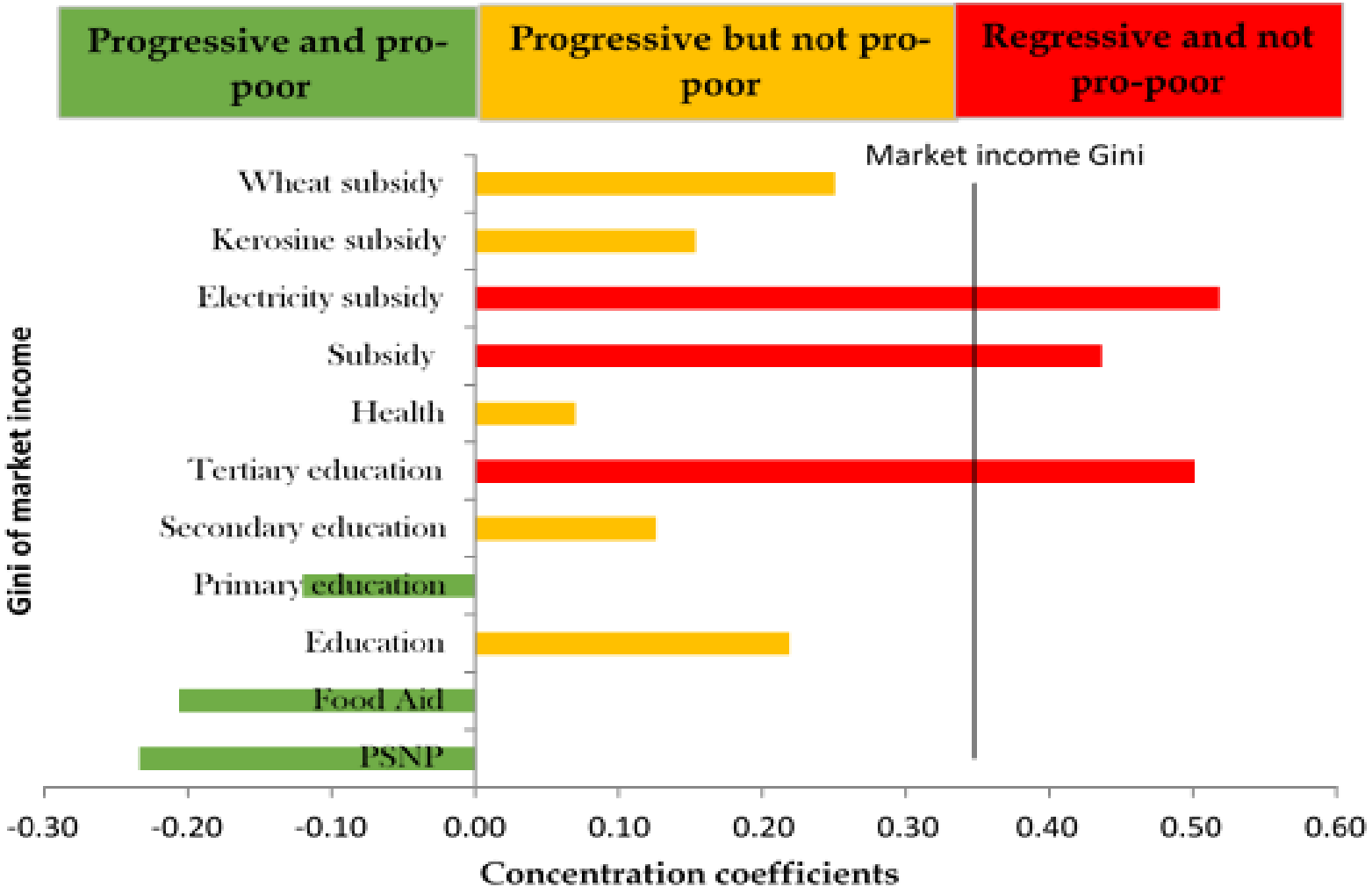
Progressivity and Pro-Poorness of Transfers



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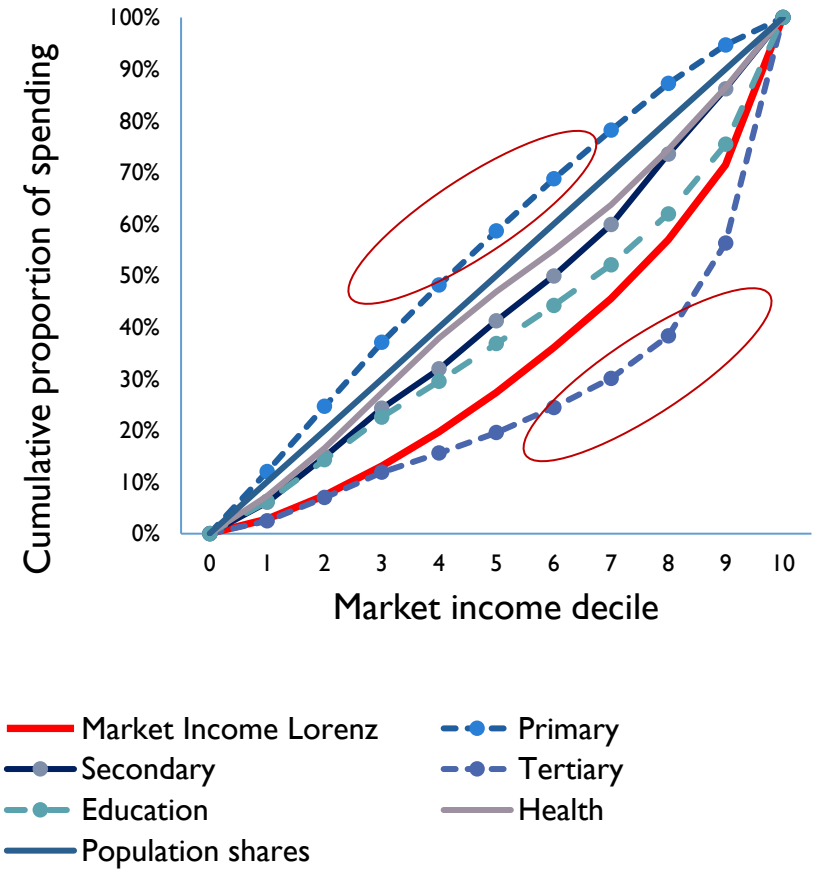
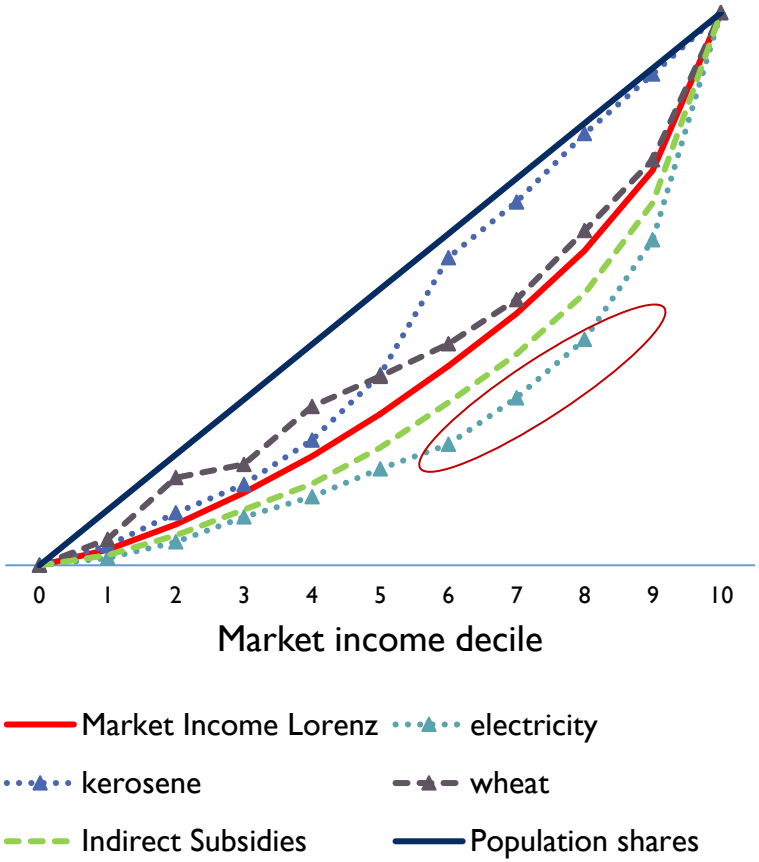
Incidence and Progressivity of *Transfers*

In-kind transfers



Indirect subsidies



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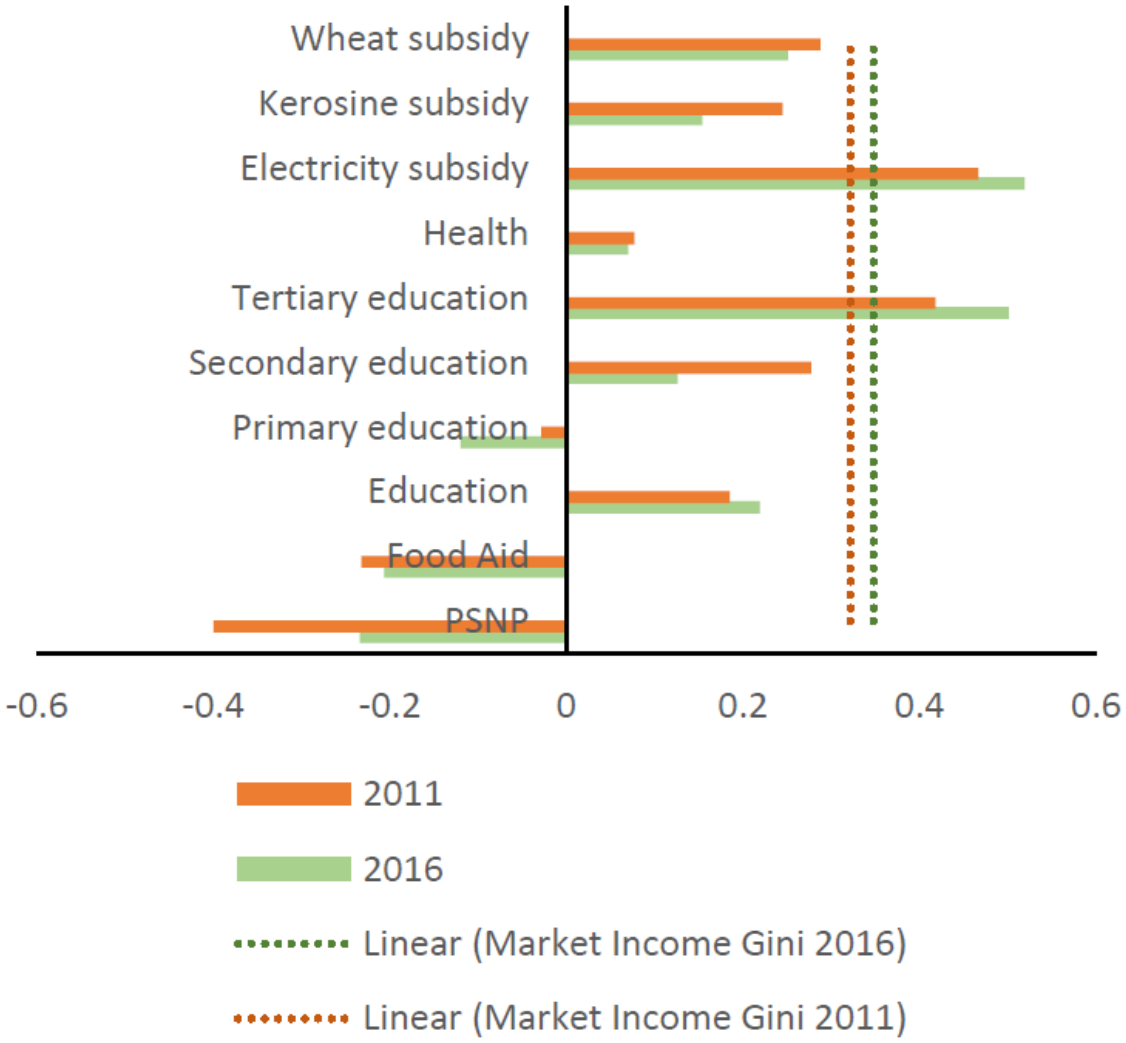
Analysis over time



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Conclusion

- Fiscal policy (exc. in-kind transfers) reduces inequality by about 2 pp. and poverty headcount by 0.15 pp.
- Poor households are net beneficiaries of fiscal policy that considers in-kind transfers
- Fiscal system (direct and indirect taxes) made 16% of poor poorer and pushed about 3% of the *ex-ante* non-poor population to poverty (fiscal impoverishment)
- Individual taxes and transfers have heterogenous effects on inequality and poverty

Conclusion … cont'd

- **Taxes**
  - Personal income taxes: progressive and equalizing (also exacerbate poverty)
  - Agricultural income taxes: regressive and exacerbate poverty
  - Indirect taxes (VAT and excise taxes): progressive and equalizing, but poverty increasing

Conclusion … cont'd

- **Transfers**
  - Direct transfers (PSNP and HFA): progressive, pro-poor, equalizing and poverty reducing
  - Indirect subsidies: benefit richer households, e.g., electricity subsidy (poverty reducing); wheat and kerosene subsidies are progressive in relative terms with small effect on inequality and poverty
  - Public spending on education: progressive and equalizing, but not pro-poor;
    - primary education spending is progressive, equalizing, and poverty reducing
    - secondary education progressive;
    - tertiary education is regressive but poverty reducing but 40% of overall education budget spent on tertiary
  - Public spending on health: progressive but not pro-poor

Policy implications

- Broaden income tax base to ensure pro-poor tax revenue generation and reduce burden of direct taxes on the poor
- Expanding geographic coverage of PSNP and increasing its size
- Redirecting (electricity) subsidy spending to direct transfers
- Tertiary education spending: redirect spending to primary (or secondary) education) in near term;
- Make health spending more progressive and pro-poor: redirecting spending from higher-level public health facilities to primary care facilities

Thank you!