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WORKING PAPER ON POVERTY, FISCAL POLICIES, AND INCOME INEQUALITY IN SUB-SAHARAN AFRICA[1]

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WORKING PAPER ON POVERTY, FISCAL POLICIES, AND INCOME INEQUALITY IN SUB-SAHARAN AFRICA

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Abstract

This paper is aiming at surveying the most recent literature and empirical evidence on the topic. It will focus on the fiscal policies targeting social inequalities and poverty in sub-Saharan (SSA) countries. The paper describes the global trends of poverty and inequality, studies redistributive fiscal policies in developing and SSA countries, and analyzes the fiscal consolidation and income inequality in developing and SSA countries. Moreover, it provides evidence for those countries on unequal benefits of fuel subsidies, discusses the redistributive impact of government spending on education and health in SSA countries, and proposes some options for enhancing efficient fiscal redistribution in Sub-Saharan countries. Finally, it provides some concluding remarks.

Keywords: *fiscal policy, poverty, inequality, Sub-Saharan countries, education and health*

1. Introduction

We are going to face the main theme of this International Conference: The reality and myth of poverty reduction strategies. The target will focus on the area of "The macro-

economy and poverty reduction". This paper is actually aiming at surveying the most recent literature and empirical evidence on the topic. It will focus on the fiscal policies targeting social inequalities and poverty in sub-Saharan (SSA) countries.

Poverty is the lack of an adequate standard of living. Standard of living is a complex situation which combines income and consumption with education, health, other social needs, and the so called "voice"[1]. So poverty is related to, but distinct from, inequality and vulnerability. The concept of poverty considered here is the situation characterized as chronicle deprivation when people remain in it for a long period of time[2].

Inequality focuses on the distribution of attributes, such as income or consumption, across the whole population. Inequality can be viewed from many perspectives or dimensions. The concept of inequality will be determined at the household level, measured primarily in monetary terms (annual income or consumption), and the effects of fiscal policies on these measures.

Fiscal policies can be a powerful tool for achieving government's redistributive goals. It affects household welfare through both monetary payments (taxes and transfers) and provision of in-kind benefits (for example, free education and health services). Some tax and expenditure policies used to this end can distort incentives and reduce economic efficiency. In this regard, policy makers can do much, through careful policy design[3], to minimize these inefficient effects, and to reduce social inequality and poverty.

The structure of the paper is as follows. In section 2, we describe the global trends of poverty and inequality. In section 3, we study redistributive fiscal policies in developing and SSA countries. In section 4, we analyze the fiscal consolidation and income inequality in developing and SSA countries. In section 5, we provide evidence for those countries on unequal benefits of fuel subsidies. In section 6, we present the redistributive impact of

[1] Voice is the extent to which poor people have a say, participate and influence the decisions that affect them. Democracy", "governance", and "empowerment" are also relevant elements, taking into account the "post-2015" agenda of United Nations of Sustainable Development Goals.

[2] Vulnerability is defined as the risk of falling into poverty in the future, even if the person is not necessarily poor now; it is often associated with the effects of "shocks" such as a drought, a drop in farm prices, or a financial crisis. Vulnerability is a key dimension of well-being since it affects individuals' behavior in terms of investment, production patterns, and coping strategies, and in terms of the perceptions of their own situations (Haughton and Khander, 2009, p. 3).

[3] In Ghana, with rising fiscal deficits associated with election periods, effective fiscal management remains a major issue (Asiama, J., Akosah, N., and Owusu-Afriyie, E. 2014)

government spending on education and health in SSA countries. In section 7, we propose some options for enhancing efficient fiscal redistribution in Sub-Saharan countries. And, in section 8, we provide some concluding remarks.

2. Global trends of poverty and inequality

Rising income inequality is the center of the debate on the economic policy across countries. So it is important to observe the evolution of extreme poverty rates by regions (1981-2011) (Figure 1). Extreme poverty rates declined, particularly, in Asia. In SSA countries, income growth was more modest, on average, than in Asia. The reduction in poverty rates has also been less marked in our region of Africa. In more recent years, a large share of SSA countries has been experiencing high rates of growth, which has led to a more rapid decline in poverty than in the past (like in Ghana, Ethiopia, Malawi, Rwanda, and Uganda).

Figure 1

Nevertheless, this statement should be nuanced, because the relationship between growth and inequality, and/or poverty is complex and does not always lead to reductions in inequality and/or in substantial poverty reductions (like in Burkina Faso, Mozambique, Nigeria, Tanzania, and Zambia; see Arndt, Mckay, and Trap, 2016).

The dynamics of income inequality are more mixed in the developing world, where inequality increased in about half of the countries, particularly in fast-growing countries such as Ghana, Rwanda, South Africa, Côte d'Ivoire, Nigeria, Tanzania, Zambia, and Mozambique (Figure 2).

Figure 2

Average inequality in the two most unequal regions (SSA Africa and Latin America and the Caribbean) remained 12 percentage points higher than the two most equal regions (emerging Europe and the advanced economies) (Figure 3).

Figure 3

A given growth rate applied to a high level of inequality will lead to a lower level of poverty reduction than the same growth rate applied to a lower level of inequality, even if inequality does not change with growth. In this sense, inequality is negative for the reduction of poverty, and furthermore the evidence seems to show that inequality is harmful to economic growth (Ostry, Berg, and Tsangarides, 2014).

3. Role of redistributive fiscal policy in Sub-Saharan countries

It seems to be relevant to examine the redistributive capacity of fiscal policies in order to reduce both social inequalities and poverty.

The global financial crisis highlighted the focus of policymakers on inequality and poverty. Many economies have been undertaking fiscal consolidations to diminish macroeconomic risks and bring public debt ratios back to more prudent levels. These consolidation efforts have brought to the fore the importance of distribution in designing adjustment packages. Public support of redistribution has increased in most recent years in developing economies such as SSA African ones, particularly in health and educational spending.

For instance, sound macroeconomic policies could help reduce inflation, which at high levels-like in Ghana- increases income inequality. Reducing unproductive spending (such as generalized subsidies) and replacing it with targeted transfers to the poor can release resources for productive outlays on infrastructure and human capital. Enhancing the efficiency of spending on social sectors would not only improve education and health outcomes, but also generate fiscal space for additional distributional policies. Besides, the quality of public institutions can influence the effectiveness of distributional policies. High and rising corruption, for example, has been found to increase income inequality and poverty (Gupta, Davoodi, and Alonso-Terme, 2002, quoted by Clements, Gaspar, Gupta, and Kinda, p.29), and social spending can more effectively raise health and educational attainment when governance is strong.

The redistributive impact of the fiscal policy depends on not only the magnitude of public revenues and expenses, but also of the composition of themselves. For example, it depends on the relationship between direct and indirect taxes or between transfers whether they are universal or not. When the combined effect of taxes and expenditures is progressive, higher income and expense levels result in higher redistributive effects. In short, the greater redistributive impact of fiscal policy, given a level of revenues and expenses, will occur when revenues are relatively concentrated in redistributive taxes (for example, progressive taxation on income) and expenses are also concentrated on redistributive transfers (for example, social transfers).

The potential redistributive impact of fiscal policies in developing countries is reduced in comparison to developed countries, reflecting differences not only in the magnitude but also in the level of revenues and expenses. While in advanced and European countries the weight of public revenues in gross domestic product (GDP) can go beyond 30%, the same rate in SSA countries barely reaches 10%[4]. As a result, social spending (education, health and social protection) in SSA countries is in fact the lowest in the world economy (Figure 4).

Figure 4

On the other hand, the composition of tax revenues in SSA countries causes a substantial decrease in the redistributive impact of fiscal policy (Figure 5). From the point of view of revenues, the redistributive impact is limited by the greater weight of indirect taxation. Income tax could be progressive, but it has a reduced presence in the tax system of SSA countries. On the contrary, indirect taxation on commercial transactions represents an important part in the tax composition of SSA countries, but they are regressive.

Figure 5

From the point of view of expenses, it should be noted that those for education and health could reduce poverty and inequality, because they increase the future revenues of the lower income groups. However, in fact, this redistributive impact is being questioned in SSA countries by the regressivity of such expenses, bearing in mind that poor families

[4] The DRC budget represents 9% of the GDP. Such a low figure limits an effective fiscal policy.

have a lower access to those services[5]. Likewise, it happens with the social insurance coverage (especially, pension), often restricted to workers in the formal sector (a minority) and public employees. Additionally, it should also be taken into account that energy subsidies benefit the higher income groups much more than the lower income groups. This fact prevents the reduction of inequality and poverty levels (Arze of Granado, Coady, and Gillingham, 2010), as we will see later on.

4. Fiscal consolidation and income inequality in sub-Suharan countries

A priority of policymakers is to design the fiscal policy adjustment so that they do not increase income inequalities. Because, in reality, there is a broad consensus that the burden of adjustment is being disproportionately supported by groups of lower income. Therefore, fiscal consolidation policies must be formulated to seek social support through a better balance of costs among different income groups.

Fiscal consolidation in SSA countries-South Africa, for example- has had negative effects on inequality, in terms of unemployment and income distribution. This has happened particularly in periods of economic recession in comparison to periods of economic expansion (Fabrizio and Flamini, 2015).

Additionally, in times of recession, the unemployment rate can be reduced after three years of adjustment, but it remains at higher levels than before the adjustment. This raises the issue that fiscal consolidation processes do not correct the macroeconomic imbalances that hinder economic growth and they do not contribute to significantly reduce income inequalities.

5. The unequal benefits of fuel subsidies: evidence for sub-Saharan countries

The economic effects of fuel subsidies are evident. They increase income inequalities and are not effective to protect against poverty. There are two ways in which to transmit these negative effects.

[5] It is the case of Ghana (Frimpong, 2013).

The first way is that the benefits of fuel subsidies are distributed in proportion to the energy consumption of the families. So the highest income families receive a higher proportion of subsidies, because they are more intensive in energy consumption than the lower-income families.

The second way consists in public expenditures in subsidies to fuels that reduce the more redistributive public expenses or require funding through regressive taxation.

However, the Governments of developing countries are reluctant to remove subsidies due to the adverse impact of higher fuel prices on real incomes of families, especially those with lower incomes who have a lower capacity to finance the cost of higher fuel prices.

Therefore, it is relevant to study the income losses, generated by increases in fuel prices and its distribution among different income groups, to design protective policies of poor families.

The analysis, carried out up to the year 2014 (Table 1), shows that SSA countries succeeded in pass-through (in relatively higher proportion) to domestic consumers the rise in fuel international prices (2004-2008). During the 2008-2012 period, the SSA countries experienced a relatively smaller impact, and had a zero impact during the 2013-2014 period.

Table 1

In other words, SSA countries have been able - to a greater extent than the rest of developing countries-to pass-through rises in international fuel prices to domestic prices. But, when prices fall, SSA countries transmit a lower proportion of such falls to consumers in order to compensate for past public revenue losses.

The outcome is that taxes on fuels increased and subsidies reduced. At the end of 2008, the median net tax per liter of fuel in SSA countries (0.54) was four times greater than in the middle of that same year (0.14). Indeed, when the fuel prices soared, SSA countries did not follow the tendency of other developing countries in tax reductions and in subsidy increases with the same intensity (period 2009-2012) (1.50 to 1.74). As a result, fiscal costs were relatively contained in SSA countries.

The decline of international fuel prices in 2014 and 2015 was not been transferred to domestic prices in the SSA countries, which implied an opportunity missed to take actions against the fiscal burden of energy subsidies. These actions required a solid knowledge of family real income impacts to relieve the fuel rise impact on poor families[6].

The impact of rising fuel prices on welfare of domestic economies occurs in two ways. First, the direct impact is a result of increasing energy prices on the fuel consumption of families. Second, the indirect impact is produced by price rises of other goods and services consumed by families. These latest rises are caused by the effects of the fuel price increases on the production costs and consumer prices.

The distribution of direct and indirect impacts among different income groups will depend on the relative importance of goods and services consumed by each one of them. And the total impact is the sum of direct and indirect impacts.

An effective fiscal targeting will be one in which a high proportion of the benefits fall on low-income families. On the contrary, if such proportion of benefits falls on higher income families, it is a good indicator that the fiscal policy is badly designed, and therefore there is still room to develop a more effective social protection policy.

The total impact on families of an increase of $0.25 per liter of fuel is considerable, resulting in a 5.0% decrease in family real incomes of SSA countries. The indirect impact (3.2 per cent) (64% of the total) is much greater than the direct impact (1.8 per cent) (36%) (Table 2).

Table 2

In any case, the differences between countries are relevant. In this sense, our attention is drawn to the strong total impact experienced by Ghana (17.3%), the direct impact (5.6%), and the indirect impact (11.7%). The Ghana case is the greatest of all the SSA countries considered in our data base. The direct impact is due to the high consumption of kerosene, because of the low access families have to electricity. Furthermore, the indirect impact is

[6] At the end of June 2016, a gradual increase in the oil prices is expected, which implies a financial relief for net exporting countries and an income loss for net importers.

reflected in the high proportion of intermediate uses (power, transport and others services) in the total consumption of fuels.

Table 3 shows the distribution of the total, direct, and indirect impacts on the level of welfare disaggregated by income groups and by regions. It must be noted that the consumption impact of kerosene is very regressive (lower consumption quintiles pay more), while the impacts of gasoline and electricity are quite progressive (lower consumption groups pay less).

Table 3

Given that the total impact of increases in fuel prices is generally neutral, high consumption of higher income families involves flows of benefits for them (5.3% and 5.0%). Therefore, to keep low oil prices reflects a badly designed subsidy.

Moreover, in average, the quintile of greater income of those SSA countries receives more than six times in subsidies (46.5%) that the poorer quintile (7.1%) (Table 4). This concentration is even higher in gasoline and Liquefied Petroleum Gas (LPG); and although poor families receive a higher proportion of subsidies in kerosene (14.0%) than in other fuels, the richest families still receive (25.2%) a large part of the benefits for this type of fuel.

Table 4

Consequently, the concentration of subsidies in the highest income groups means that universal subsidies are not only a costly instrument, but also inadequately for protecting the welfare of poor families. And, it is worth adding, that these leaks of subsidies towards the upper quintile of income are comparatively greater in SSA countries than in countries in other regions of the world.

6. **The redistributive impact of government spending on education and health**

The analysis of fiscal incidence (Lustig and Higgins, 2013, for methodology) consists in assigning tax and public expenditure (social expenditure) to the families so that income before taxes and transfers are comparable with the incomes after taxes and transfers.

Transfers include cash benefits (school feeding programs, free uniforms, free textbooks, etc.) and in-kind benefits as expenditures in education and health services.

According to the available information, we will study two cases of SSA countries: South Africa and Ethiopia (Lustig, 2015). The data comes from official sources in each country[7]. The basic concepts used are market income, post-fiscal income, and final income. Market income is the total income before direct taxes[8]. Post-fiscal income is the market income minus direct, indirect taxes, social security contributions, plus transfers[9]. Final income is the post-fiscal income plus government transfers and minus co-payments[10].

Families are classified by market incomes per capita. Inequality and poverty indicators are calculated for the three mentioned concepts of income. Given that public services valued at the provision costs are not equivalent to the "cash", the levels of poverty are not calculated for the final income. If public services are not free, it is unlikely that the poor pay for them at that provision cost. Indicators of inequality can be changed by the Government through education and health expenses. Therefore, indicators of tax progressivity (cumulative percentages and concentration ratios for education and health expenses) can be calculated. It is clear that these indicators valued by the average cost of provision do not take into account the quality of services[11].

The analysis of the impact of fiscal policy in redistributive terms compares the Gini index for final income with the Gini index for market income. The Figure 5 shows that the reduction of inequality goes from 17.5 Gini points in South Africa (ZAF) (the country

[7] Household Consumption Expenditure Survey and Welfare Monitoring Survey, for Ethiopia. Income and Expenditure Survey, and National Income Dynamics Study, 2010-201, for South Africa.

[8] Market income is equal to the sum of gross wages (before taxes) in the formal and informal sectors, income from capital (interest and dividends), the consumption of own production (in South Africa this heading was excluded for not being reliable), rents of dwellings occupied by owners, private transfers (remittances from emigrants and marital-alimony pensions), and pensions.

[9] Post-fiscal income is the market income minus income taxes and all contributions to the social security (except the part that goes to pensions), plus Government transfers (transfers for food, free text books and school uniforms) and indirect subsidies, minus indirect taxes (VAT, sale tax, and the like).

[10] Final income is the post-fiscal income plus the Government transfers in form of free or subsidized services in education and health to the average cost of provision and minus the co-payments or user payments.

[11] It is very likely that the poor received lower quality educational and health services than the superior income population, simply because they live in rural areas of difficult access.

with the greatest inequality in the market income) to 2.3 Gini points in Ethiopia (ETH) [12] (the country with the lowest inequality of the market income)[13].

Figure 6

The contribution of public spending in education and health to the reduction of inequality can be measured by the marginal contribution, the sequential contribution and the total contribution[14]. The results show (table 5) that the marginal contribution of public expenditure on education and health as a proportion of the total reduction in inequality (or difference between the final income and the market income) goes from a very low reduction of 12% in Ethiopia to a much higher reduction of 56% in South Africa.

Table 5

On the one hand, the analysis of progressivity and pro-poorness of public expenditures in education and health shows that individuals in extreme poverty are net payers in Ethiopia (both considering extreme poverty as the line at US$ 1.25 per day and as the line at US$ 2.50 per day). On the other hand, the proportion of net beneficiaries of the deciles of lower income in South Africa is much higher (Lustig, 2015, p. 308).

The cumulative concentration of educational expenditure in Ethiopia (Table 6) shows that is not pro-poor, as 20 percent of the richest absorbed 34.6 percent of education spending. In South Africa, that concentration is somewhat more pro-poor, because 20 percent of the rich only absorbed 18.7 per cent of the expenditure in education.

Table 6

The explanation for these results in Ethiopia is that a low-income country, the large part of the rural population (over 80 per cent of the total) has low access to education. Apart from that, Ethiopia also spends a higher proportion than other countries in tertiary

[12] It should be taken into account that the Gini index in Ethiopia is measured in per capita consumption, whereas in South Africa it is measured in per capita income. They present a different distribution: the first is less unequally distributed than the second.

[13] Which contrasts with the so-called paradox of “Robin Hood", which consists in that the redistribution from the rich to the poor is lower in countries of increasing inequality in income distribution.

[14] The marginal contribution is the difference between the Gini coefficients of final income and post-fiscal income; i.e., excluding or including expenditures in education and health, respectively.

education (14.6 per cent); expenditure which has a regressive redistribution effect (Table 7).

Table 7

In South Africa, spending on preschool and primary is pro-poor (negative concentration coefficients), while tertiary education tends to be more "pro-rich". The plausible explanation might be that middle and high income groups do not attend the lower levels of the public educational system, due to its poor quality and they, on the other hand, do benefit from free tertiary education that the poor do not have access to because of their lack of qualification and income.

The cumulative concentration share for government health spending is shown in Table 8. Ethiopia health expenditures benefit the 20 per cent of the poor comparatively less than (17.8 per cent) the greater benefit for the 20 percent of the richest (35.7 per cent). Spending on health is a bit more pro-poor (20.6 per cent for the poorer) and less pro-rich (24.7 per cent) in South Africa. This result is probably due to the large proportion of rural population in Ethiopia, which makes access and provision of health services much more difficult and costly.

Table 8

7. Options for enhancing efficient fiscal distribution in sub-Saharan countries

Many SSA economies are limited by low levels of taxation and at the same time experience growing demands for investment in education, health and infrastructure to foster economic growth. Strategies to strengthen the redistributive impact of fiscal policy require efficient and well-designed proposals.

These strategies and proposals are based on several principles (Bastagli, Coady, and Gupta, 2015). First, direct taxation on income and transfers (From tax credits to medical assistance, aid to needy families with dependent children) are the most efficient instruments to achieve redistributive effects.

Second, if the access to the two previous instruments is restricted (for administrative and/or political reasons), it could be replaced with measures that link taxes and transfers

to families with characteristics that are correlated with income (families with some disabled, headed by a woman or a widow, the number of children or elders).

Third, subsidies and indirect taxes on consumption do not redistribute income efficiently given that higher income families capture a larger share of consumption than lower income ones.

Fourth, taxes on consumption (fossil fuels, alcohols and tobacco), goods that have negative social effects, can provide a redistributive situation "win-win" when consumption is concentrated in the highest income groups. Therefore, in the SSA countries, it is convenient to combine direct and indirect taxes and transfers, and to strengthen the administrative capacity to overcome its limitations.

Tax reform options should pursue the increase of tax revenues that allow setting redistributive goals. The reduced tax rates in SSA countries are due to well-known factors, such as a low revenue collection capacity (produced by the weakness of the available tax information), low educational level, and other factors (relating to the existence of a massive informal economy and the fragmentation of agricultural holdings).

It is thus necessary to broaden tax bases in incomes and consumption, reduce exemptions and legal loopholes and enhance compliance with the law. In this sense, SSA countries should intensify their efforts to increase still very low tax rates, compared to other regions of the world, and to avoid that these tax increases rest - as it is the case - in indirect taxation.

Personal income tax (PIT) is one of the challenges of SSA countries in order to make the tax system more progressive. The PIT in SSA countries use progressive tax schemes, but narrow tax bases (by the existence of high income thresholds, generous exemptions, preferential tax treatment of capital, and tax evasion by inability of fraud detection), which lower progressivity of the effective income taxation.

The alternative to this fiscal situation should come from the extension of income tax bases. This requires the country to reduce tax exemptions and legal loopholes, and to lower tax thresholds in order to make income taxation more equitable. At the same time, it is important to strengthen the administrative capacity, segmenting different groups of

taxpayers (levels of high and middle income, self-employed, farmers) to take into account their specific problems from the view point of tax collection.

The attainment of sufficient revenues from corporation tax is helpful for increasing the efficiency and equity of the tax system. In the short term, the corporate tax is highly progressive since capital income receivers tend to be high income groups. In the long run, however, the incidence of tax on wage and capital incomes depends on the relative mobility of factors among countries. As capital is more mobile than labor, the incidence of the corporate tax will fall largely on the second rather than on the first. Studies (Arulampalam et al., 2010) show that the impact over time of the tax burden falls mostly on wages. This reduces the redistributive impact of the tax, given that wage incomes largely belong to the lower income groups compared to the recipients of capital revenue.

Therefore, it is important to harmonize the PIT with taxes corresponding to different sources of capital income. Due to growing capital international mobility (and to fiscal evasion), the SSA countries face huge administrative difficulties in matter of fiscal efficiency. There are different ways to deal with this situation:

- to establish a corporation tax lower than the PIT
- to implant different types of capital income tax treatment
- to increase the use of withholding taxes[15]
- to reduce tax exemptions
- And to reinforce the taxation of multinational companies that have tax optimization strategies.

The indirect taxation must lie on final consumption (and not on intermediate consumption that distort investment decisions), which should have higher rates on goods with lesser elasticity price. Additionally, lower levels of taxation on goods and services, which are relatively important in families of lower income (food), may induce redistributive effects.

[15] Withholding tax, also called a retention tax, is a government requirement for the payer of an item of income to withhold or deduct tax from the payment, and pay that tax to the government.

The excise duty (on tobacco, alcohol, drink, game, fuel and luxury goods) can be a significant source of revenues, to increase tax progressivity and to promote socially healthy consumption.

The change in trade taxation[16] to consumption taxation, particularly in taxes such as value-added tax (VAT), allows progressivity to be introduced in the tax system. This can be achieved by setting lower rates on basic goods and raising tax thresholds to exclude small and medium-sized enterprises from the tax payment.

Finally, it is evident that the distributional effects of social spending can be improved, taking into account the difficulties of raising taxes. The distributional effects of social spending in SSA countries are limited by the reduced pension coverage of the lower income groups. To establish sufficient pensions to alleviate poverty may decrease incentives to stay outside the system and thus to contain its fiscal cost.

Most SSA countries have a large number of different poverty alleviation programs (box transfer, fee waivers, food/education/health aid, and energy price subsidies). However, these programs often lack an efficient design, which can be improved in several ways.

This multiplicity of programs has goals that are not only duplicated, but also without coordination among them; which generates economic and administrative costs. “Bad targeting” also occurs, causing a diversion of profits towards the "non-poor" and an elevation of fiscal cost. Much of this happens with in-kind expenses (food), which can be damaged or stolen. Consumption subsidies with universal prices benefit higher income families more.

A plan with a lower number of programs with well-defined objectives would reduce fiscal costs, it would increase the efficiency and it would be more beneficial for the poor. In particular, it should be taken into account that it is essential to offer quality educational services (ensuring access to poor, including at university levels) and quality health services to avoid the poor becoming poorer by high out-of-pocket - spending[17]. In

[16] Trade taxation is an inefficient tax collection system because it distorts production and consumption decisions, subsidizes less competitive domestic producers, and it is financed by the price premium paid by domestic consumers.

[17] In Ghana this spending in health ((% of private expenditure on health) is relatively high (66.8%, higher than the 45.6% of the world average) (http://data.worldbank.org/indicator/SH.XPD.OOPC.ZS).

addition, it is important to continue with the "conditional cash transfer" programs that are showing considerable results in education and health and reducing inequality and poverty levels[18].

The fuel subsidies reform is very important in order to reduce its negative effects on poverty levels. The targeted cash transfers are useful instruments to offset these negative effects, because they provide flexibility to beneficiaries in order to buy the quantity and the type of energy they need. This reform should be made jointly with a progressive suppression of subsidies, for example, delaying the fuel price increases for products (such as kerosene, which are used more by low-income groups), using public transport aid for poor families and/or financing their connections to rural electrification systems.

8. Concluding remarks

Building institutions becomes very important for fiscal policy formulation and implementation. For example, a strong and reinforced revenue administration can help countries ensure that taxes are paid and collected as intended by governments. Improving tax administration also contributes towards raising the revenues needed to finance higher levels of redistributive spending.

A technical assistance on revenue administration, on tax and expenditure policies, on energy subsidies and pension reforms, and so on, is crucial to provide options on how to undertake fiscal actions to protect low-income groups.

To prevent increases in inequality and poverty as a result of fiscal adjustment programs, it is essential to implement social strategies to protect the most vulnerable families. One way of doing this is by replacing universal instruments with targeted social expenditures specifically directed to poor families.

Last but not least, lessons from international experiences suggest that lack of information about the reform effects, lack of government credibility and administrative capacity, opposition of interests groups benefiting from the status quo, and weak macroeconomic conditions are important barriers to successful fiscal policy reforms in terms of

[18] SSA countries such as Burkina Faso, Liberia, Madagascar, Malawi, Niger, and Tanzania are adopting these programs (Monchuk, 2014, quoted by Bastagli, Coady, and Gupta., 2015).

diminishing inequality and poverty reduction levels (Clements, Coady, Fabrizio, Gupta, Alleyne, and Sdralevich, 2013).

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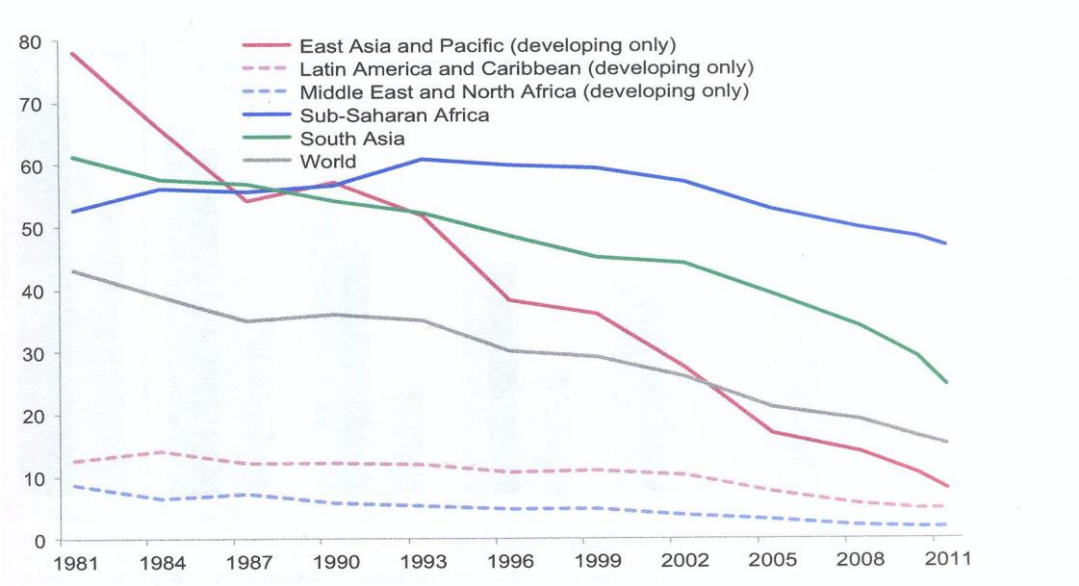
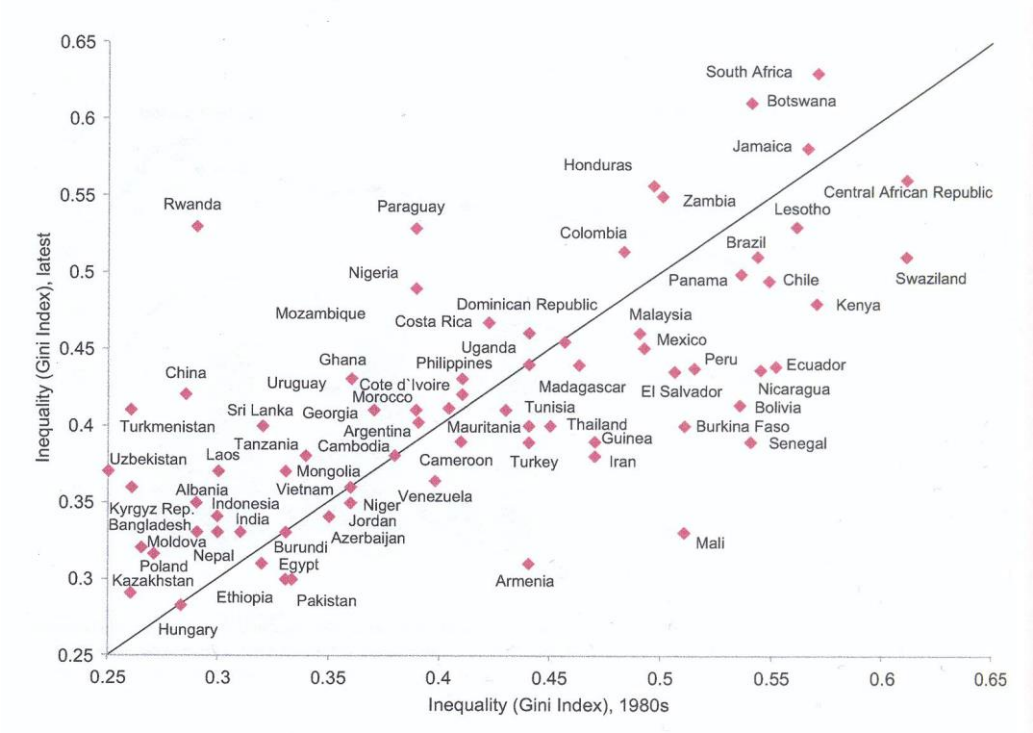
Figure 1. Extreme Poverty Rates by Region, 1981-2011 (Percent)



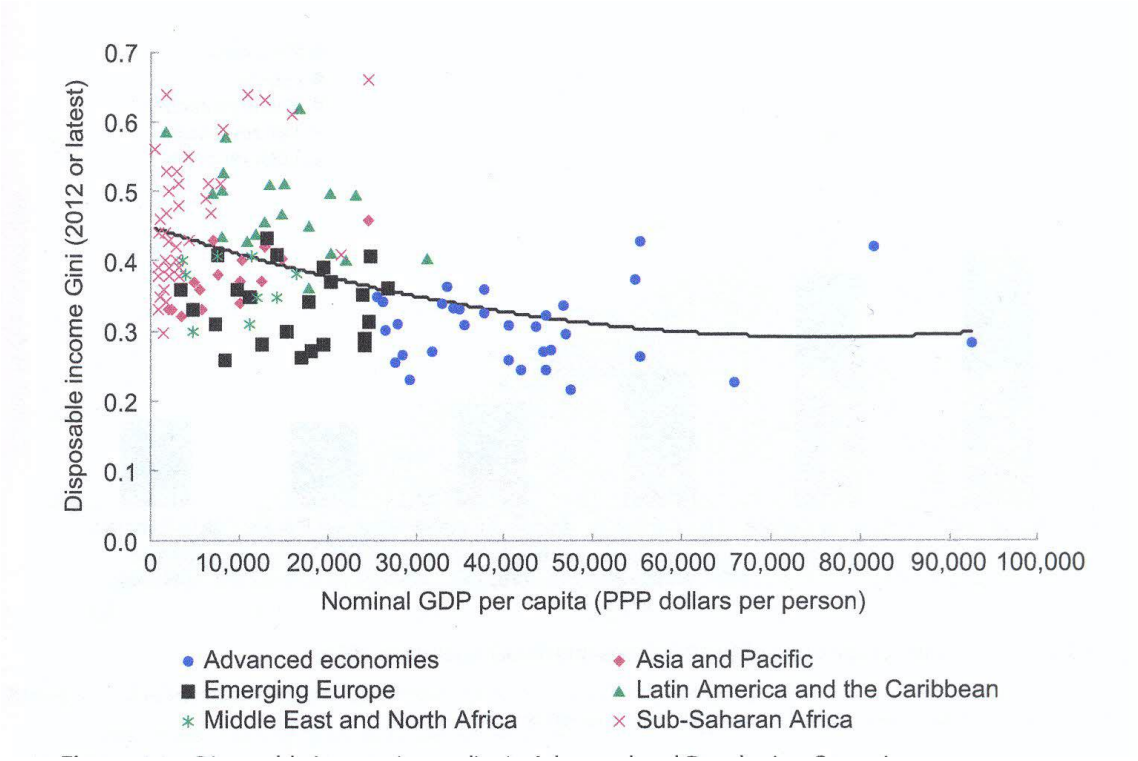
Source: World Bank, World Development Indicators; and IMF and staff estimates.

Figure 2. Developing Countries: Income Inequality in the 1980s and 2000s (Latest observation)



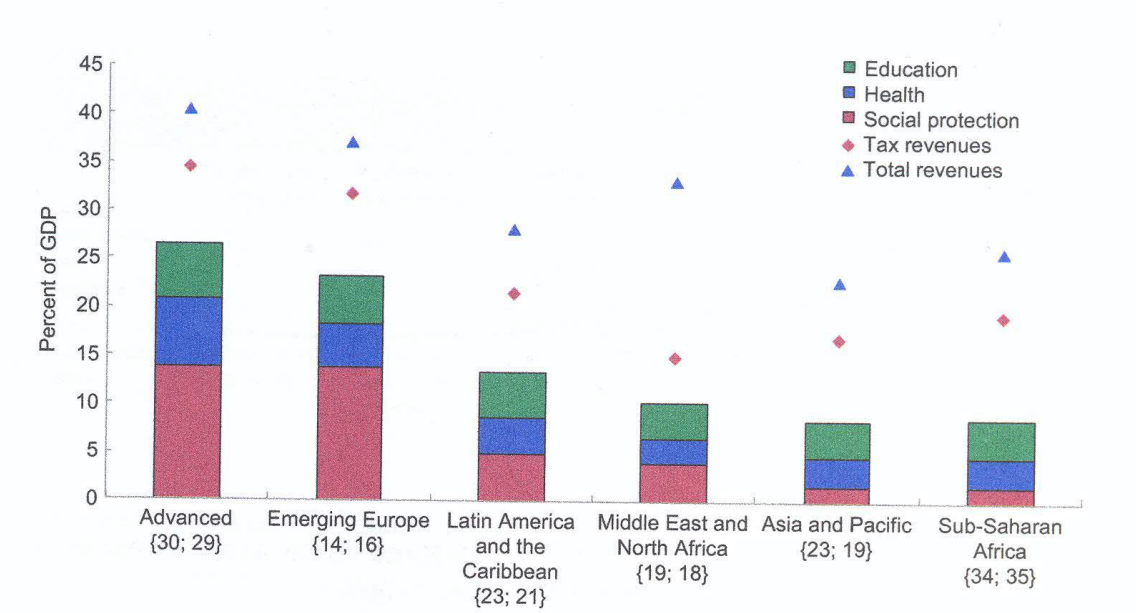
Source: European Union: Luxembourg Income Study; Organization for Economic Co-operation and Development World Bank; and author's estimates (Quoted by Clements, Gaspar, Gupta, and Kinda, 2015, p.26)

Figure 3. Disposable Income Inequality in Advanced and Developing Countries



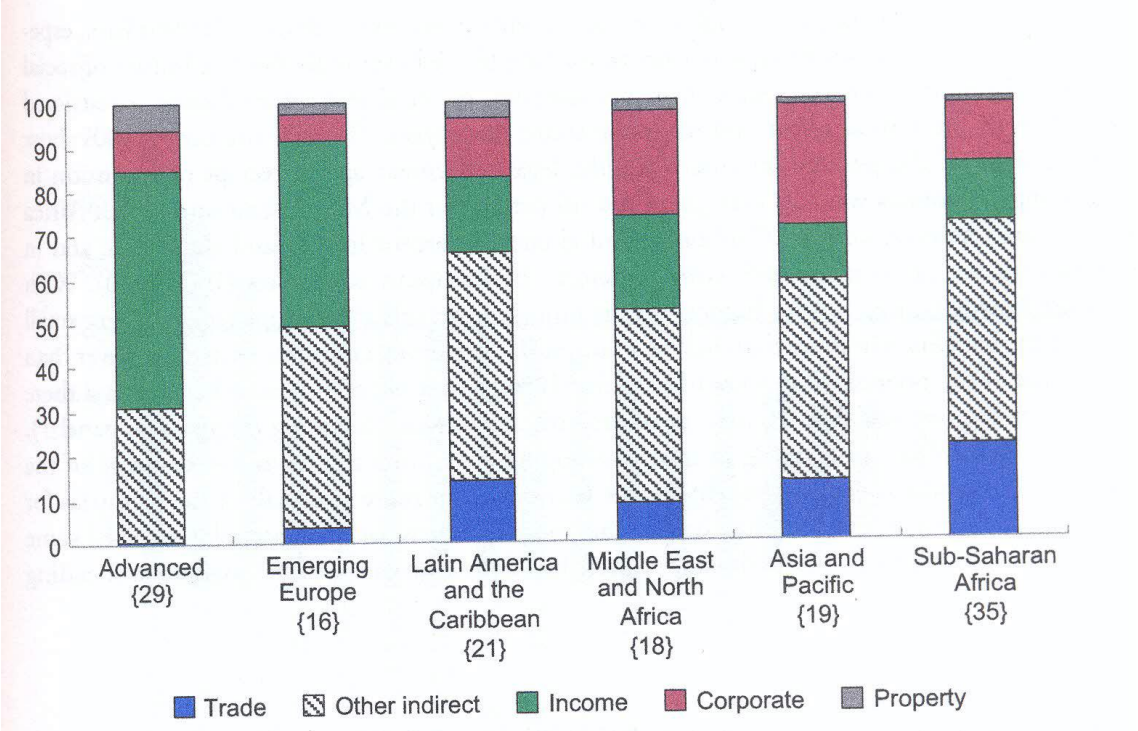
Source: Bastagli, Coady, and Gupta, 2015, p. 59

Figure 4. Levels and Composition of Tax Revenues and Social Spending, 2010



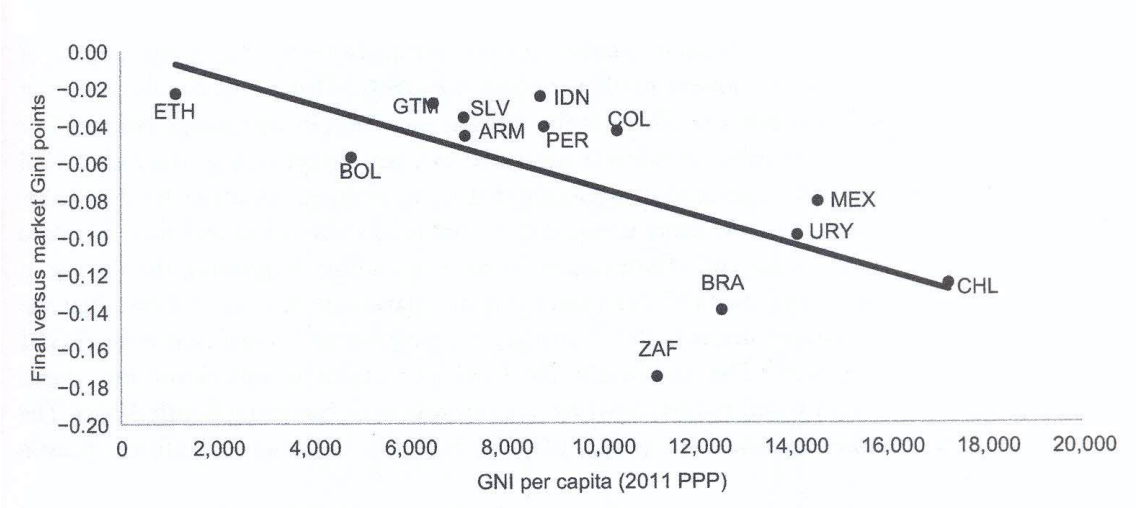
Sources: IMF database, Bastagli, Coady, and Gupta, p. 60

Figure 5. Composition of Tax Revenues, Late 2000s (*Percent*)



Source: IMF database, Bastagli, Coady, and Gupta, p. 61

Figure 6. Redistributive Effect and GNI Per Capita, circa 2010



Source: Lustig, p. 305

Table 1. Diesel Price Pass-Through and Net Taxes in Developing Countries, 2004-2014

Diesel Price Pass-Through and Net Taxes in Developing Countries, 2004–12

	End-2004–Mid-2008	Mid-2008–End-2008	End-2008–End-2012	End-2013–End-2014
	Pass-through (Percent)			
Developing Economies {118}	66	22	49	11
Developing Asia {28}	65	12	54	40
Latin America and the Caribbean {32}	51	28	83	12
Middle East and North Africa {19}	13	1	10	0
Sub-Saharan Africa {39}	85	38	35	0
	Fiscal cost (Percent of GDP)			
Developing Economies {118}	1.92	−3.14	1.74	−0.88
Developing Asia {28}	1.43	−4.68	2.24	−0.89
Latin America and the Caribbean {32}	2.50	−2.98	1.27	−0.80
Middle East and North Africa {19}	1.93	−3.44	3.20	−1.89
Sub-Saharan Africa {39}	2.15	−3.42	1.50	−0.92
	Net-tax (US$/liter)			
	End-2004	**Mid-2008**	**End-2008**	**End-2012**	**End-2014**
Developing Economies {118}	0.10	−0.08	0.33	0.22	0.37
Developing Asia {28}	−0.11	−0.37	0.17	0.05	0.16
Latin America and the Caribbean {32}	0.09	−0.08	0.29	0.22	0.29
Middle East and North Africa {19}	−0.14	−0.78	−0.12	−0.36	0.07
Sub-Saharan Africa {39}	0.27	0.14	0.54	0.32	0.47

Sources: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ); International Energy Agency; U.S. Energy Information Agency; IMF staff estimates.

Note: Pass-through is defined as the increase in domestic prices divided by the increase in international prices in U.S. dollars. Fiscal cost refers to the increase in fuel subsidies or decrease in tax revenues for gasoline, diesel, and kerosene, based on changes in end-of-period prices and annualized cost. Net taxes per liter are defined as unit taxes minus unit subsidies; a negative value indicates prevalence of subsidies. Numbers in brackets refer to the size of the sample of countries in each group. Sample size for end-2013–end-2014 is significantly lower than previous periods, totaling 102 developing countries rather than 118.

Source: Extracted from Coady, Flamini, and Sears, p. 257

Table 2. Direct and Indirect Welfare Impacts of Fuel Price Increases (*Percent of household total Consumption*)

	Direct by product						
	Gasoline	**Kerosene**	**LPG**	**Electricity**	**Direct**	**Indirect**	**Total**
Africa (Average)	0.3	0.9	0.2	0.4	1.8	3.2	5.0
Cameroon	0.2	1.4	0.1	0.5	2.3	1.3	3.6
Gabon	0.2	0.3	0.5	1.2	2.2	3.5	5.6
Central African Republic	0.0	0.6	0.0	0.0	0.7	2.8	3.5
Senegal	0.1	0.3	0.3	0.4	1.0	1.1	2.1
Ghana	0.6	5.0	0.1	n.a.	5.6	11.7	17.3
Mali	0.4	0.9	n.a.	0.3	1.5	1.4	2.9
Congo, Republic of	0.0	0.9	0.0	0.3	1.3	7.7	9.0
Burkina Faso	0.5	0.6	0.0	0.2	1.3	0.7	2.0
Angola	1.1	0.6	0.2	n.a.	1.9	2.2	4.2
Kenya	0.0	0.5	n.a.	n.a.	0.5	n.a.	0.5
Madagascar	0.1	0.3	n.a.	n.a.	0.4	n.a.	0.4
South Africa	0.8	0.0	n.a	n.a	0.8	0.1	0.9
Uganda	0.0	0.3	n.a.	n.a.	0.4	n.a.	0.4
All regions (average)	0.4	0.8	0.4	0.9	2.5	3.0	5.5

Source: Coady, Flamini, and Sears (2015), p. 270

Table 3. Distribution of Welfare Impact by Income Group (Percent of household total consumption)

	Consumption Quintiles					
	Bottom	**2**	**3**	**4**	**Top**	**All households**
Africa						
Total impact	4.7	4.8	4.8	5.0	5.3	5.0
Total direct impact	1.7	1.6	1.6	1.6	1.9	1.7
Gasoline	0.1	0.1	0.2	0.3	0.5	0.3
Kerosene	1.3	1.1	0.9	0.7	0.5	0.9
LPG	0.1	0.2	0.2	0.3	0.3	0.2
Electricity	0.2	0.3	0.3	0.4	0.6	0.4
Indirect impact	3.0	3.1	3.2	3.4	3.4	3.2
All regions						

Total Impact	5.4	5.4	5.5	5.6	5.7	5.5
Direct impact	2.3	2.3	2.4	2.5	2.6	2.5
Gasoline	0.2	0.3	0.4	0.5	0.7	0.4
Kerosene	1.1	1.0	0.8	0.7	0.4	0.8
LPG	0.3	0.3	0.4	0.4	0.4	0.4
Electricity	0.7	0.7	0.8	0.9	1.1	0.9
Indirect impact	3.1	3.0	3.1	3.1	3.1	3.0

Source: Coady, Flamini, and Sears, p. 272

Table 4. Distribution of subsidy Benefits by income Group (Percent of total subsidy benefit)

	Consumption Quintiles					
	Bottom	**2**	**3**	**4**	**Top**	**All households**
Africa						
Total impact	7.1	10.7	14.9	20.8	46.5	100
Total direct impact	7.7	10.6	14.2	19.8	47.6	100
Gasoline	1.5	2.9	6.3	16.2	73.2	100
Kerosene	14.0	21.2	19.2	20.4	25.2	100
LPG	2.7	6.5	11.7	22.4	56.6	100
Indirect impact	6.2	10.1	14.8	21.5	47.4	100
All regions						
Total Impact	7.0	11.0	15.6	21.9	45.0	100
Direct impact	7.1	10.8	14.9	20.9	46.2	100
Gasoline	2.4	5.0	9.0	18.2	65.0	100
Kerosene	17.5	21.4	20.6	20.7	19.7	100
LPG	4.4	8.3	13.5	22.0	51.9	100
Indirect impact	7.2	11.3	16.0	22.1	43.3	100

Source: Coady, Flamini, and Sears, p. 273

Table 5. Contribution of Spending on Education and Health to the Overall Redistributive Effect

	Ethiopia (2011)	**South Africa (2010)**
Gini of Market Income	0.3217	0.7712
Gini of Postfiscal Income	0.3019	0.6946
Gini of Final Income	0.2991	0.5961
Marginal Contribution of Spending on Education and Health		
Difference between Final and Postfiscal Income	-0.0028	-0.0985
	12	56

As a Share of Difference between Final and Market (percent)				

Source: Lustig (2015), p. 307

Table 6. Distribution of Market Income and Cumulative Concentration Shares of Education Spending by Decile (Percent)

Decile	**Ethiopia (2011)**		**South Africa (2010)**	
	Market Income	**Education**	**Market Income**	**Education**
1	3.0	6.5	0.1	10.6
2	7.9	15.3	0.3	22.1
3	13.8	23.5	0.7	33.2
4	20.8	31.3	1.6	44.6
5	28.7	38.9	3.1	54.8
6	37.6	46.8	5.8	64.2
7	47.7	55.7	10.3	73.1
8	59.5	65.4	18.6	81.3
9	73.9	77.9	36.3	89.8
10	100.0	100.0	100.0	100.0

Source: Lustig (2015), p. 311

Table 7. Concentration Coefficients and Budget for Education Spending by Level

	Ethiopia (2011)		**South Africa (2010)**	
	CC/Gini	**Budget Share (percent)**	**CC/Gini**	**Budget Share (percent)**
Education	**0.1831**	**48.7**	**-0.1102**	**48.6**
Preschool	n.a	n.a	-0.4467	17.2
Primary	-0.0280	21.5	-0.4305	
Secondary School	0.2774	12.7	-0.1200	13.0
Lower Secondary				
Upper Secondary				
Tertiary	0.4098	14.6	0.4698	11.1
Market-Income Gini	**0.3217**		**0.7712**	

Source: Lustig, p. 312

Table 8. Distribution of Market Income and Cumulative Concentration Shares of Health Spending by Decile (Percent)

Decile	Ethiopia (2011)		South Africa (2010)	
	Market Income	Health	Market Income	Health
1	3.0	8.9	0.1	10.2
2	7.9	17.8	0.3	20.6
3	13.8	26.4	0.7	31.2
4	20.8	35.8	1.6	42.0
5	28.7	44.5	3.1	53.1
6	37.6	54.7	5.8	64.2
7	47.7	64.3	10.3	75.3
8	59.5	74.4	18.6	85.9
9	73.9	85.6	36.3	95.0
10	100.0	100.0	100.0	100.0

Source: Lustig (2015), p. 314