

# Towards a pro-equity fiscal policy in Africa

## Emerging facts about fiscal policies and income inequality in Africa

**1** Most countries with a **revenue-to-GDP ratio** of **>20%** have **income inequality >0.5** (Gini) of

**2** **Fiscal policies** are powerful tools to **make a dent** in **income inequality** in Africa

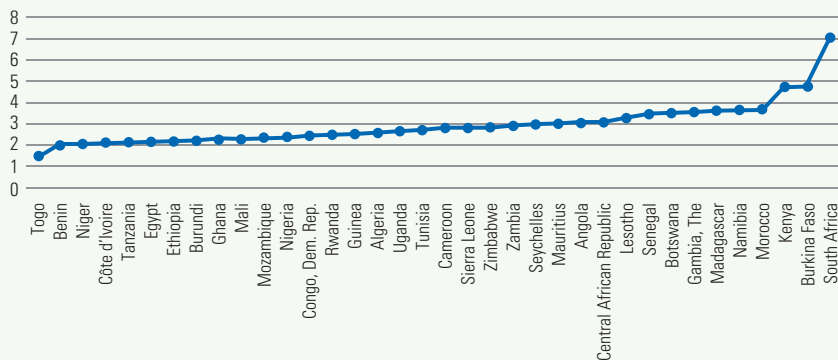
**3** **Taxation** in Africa is mostly **regressive** – its incidence **falls more on the poor than on the rich**

**4** **Total natural resource rent** as a share of GDP as a result of:  
 1. the prevalence of Dutch disease  
 2. concentration of asset ownership  
 3. associated inefficiencies tend to **drive inequality**

**5** Low levels of taxes and social spending **limit the distributional impact of fiscal policies** in Africa

**6** **Growth** that is **job-rich, skills-enhanced and human development-driven** **reduces inequality**

### Effectiveness of fiscal distribution varies across countries in Africa



## Making fiscal policies pro-equity in Africa

**1** **Enhancing progressive taxation** by increasing marginal tax rates and focusing more attention on personal and corporate taxes

**2** **Diversifying government revenues** away from the extractive sector to personal and corporate taxes

**3** **Enhancing quid pro quo in tax management** helps to boost revenues and promote predictability

**4** **Improving the design and operational effectiveness of subsidies and transfers** through better targeting

**5** **Investing in skill acquisition programmes** for the unskilled; **promoting quality education and higher transition rates** from primary to secondary education

**6** **Targeting public spending on poor families, the elderly, the unemployed and the marginalized**

**7** **Adopting an appropriate fiscal policy mix** to shift the frontier of fiscal distribution

# 7 Fiscal Policy, Redistribution and Inequality in Africa

AYODELE ODUSOLA

## 7.1 Introduction

Over the past five decades, substantial attention has been placed on the role of economic growth in reducing poverty. This is premised on the trickle-down effect of long-term economic growth on poverty and inequality, based on Simon Kuznets' theory. However, evidence across the world has shown that high economic growth and rapid reduction in poverty do not automatically translate into accelerated reduction in inequality (Stiglitz, 2015; Reid-Henry, 2015; Piketty, 2015). China and Rwanda provide some good examples of the lack of trickle-down effect on inequality where rapid economic growth has been accompanied by rising income inequality.<sup>1</sup> The global inequality crisis – where the richest 1 per cent of the world's population has more wealth than the rest of the world combined<sup>2</sup> – has disproved Kuznets' theory and has further questioned the efficacy of fiscal policies in promoting economic efficiency and development effectiveness.

Income inequality is not only an outcome of economic forces such as economic growth, but also a consequence of public choices. It is often a by-product of regressive taxes, unresponsive wage structures, especially stagnant minimum wages in the face of high wage compression ratios, and inadequate investment in education, health and social protection for the vulnerable and marginalised. The capacity to manage urbanisation bias is also important in addressing inequality. Fiscal policies affect inequality directly, through the progressivity of taxes, well-targeted transfers and the quality of public expenditure, and indirectly, by impacting other factors that influence income and wealth inequality. Despite the wide recognition of fiscal policy's distributive role on income inequality, this role has been neglected since the 1980s, particularly starting from the era of the Washington Consensus, when undue emphasis was shifted to macro-economic stability and allocative efficiency roles.

<sup>1</sup> These two countries rapidly grew at an average annual rate of more than 9.0 per cent between 1995 and 2015. Yet, in Rwanda, income inequality (Gini) rose from 0.289 in 1984 to 0.504 in 2013, and in China, from 0.291 in 1981 to 0.473 in 2013. See World Development Indicators for economic growth in both countries and inequality in Rwanda, and Wang, Wan and Yang (2014) for income inequality in China.

<sup>2</sup> See Oxfam (2016), Reid-Henry (2015) and Piketty (2015) regarding the global crisis of inequality and the irrelevance of Kuznets' theory in explaining the link between growth and inequality in contemporary development economics. Oxfam (2016) particularly concludes that the world economy has been captured by the richest 1 per cent of the world population, with 46 per cent of the total growth in global income between 1998 and 2011 going to the top 10 per cent. In 2016 alone, 62 individuals had the same wealth as 3.6 billion people, the bottom half of humanity.

The high level of income inequality in Africa has rekindled the debate on the distributional impact of government fiscal policies, particularly taxes and spending choices. The agitation for an effective redistribution policy has become more intense since the consultations on the post-2015 Development Agenda, which commenced about five years ago. The emerging reality – that high inequality harms macroeconomic stability and economic growth, reduces growth elasticity of poverty and limits economic mobility of younger generations – further explains why development stakeholders in Africa, including policymakers and civil society, are more concerned about the role of fiscal policies and distributive programmes in addressing poverty and inequality. The evidence of income inequality bifurcation in African countries<sup>3</sup> has enhanced the role of fiscal policies and distributional programmes in explaining why some countries are succeeding in the war against inequality and others are losing out.

The concern for inequality peaked when the Sustainable Development Goals (SDGs) were endorsed by the United Nations General Assembly in September 2015 as the framework for shaping the global development agenda over the next 15 years. The 2030 Agenda for Sustainable Development aims to eliminate poverty and to rapidly reduce inequality as its overarching goal, anchored on a strategy of ‘leaving no one behind’ in the development process by 2030. And, as articulated in the Outcome Document of the third International Conference on Financing for Development, implementing progressive and efficient tax systems and delivering social protection and essential public services to all are crucial to realizing the SDGs, especially Goal 1 on poverty and Goal 10 on inequality.

To build a better world, the lopsided nature of the distribution of incomes and wealth must be addressed and fiscal policies have a strong role to play. It is important to know who benefits from public spending programmes and who pays for them. This, therefore, calls for a deeper understanding of how fiscal policies and distributional programmes of governments could help reduce income inequality and promote shared prosperity. For the 2030 Agenda for Sustainable Development, addressing inequality is not only crucial for political stability and social cohesion, but is also good economics and a development imperative.

Despite the recognition in the literature of fiscal policy’s central role in addressing inequality, especially through tax progressivity, well-targeted transfers and quality public expenditure, there is limited empirical work in Africa on this issue. The objective of this chapter is to examine how governments’ fiscal and distributive policies have impacted inequalities and, based on the findings, to suggest how these policies can help accelerate the reduction of inequality in the continent.

## **7.2 Inequality in Africa in the context of the Sustainable Development Goals**

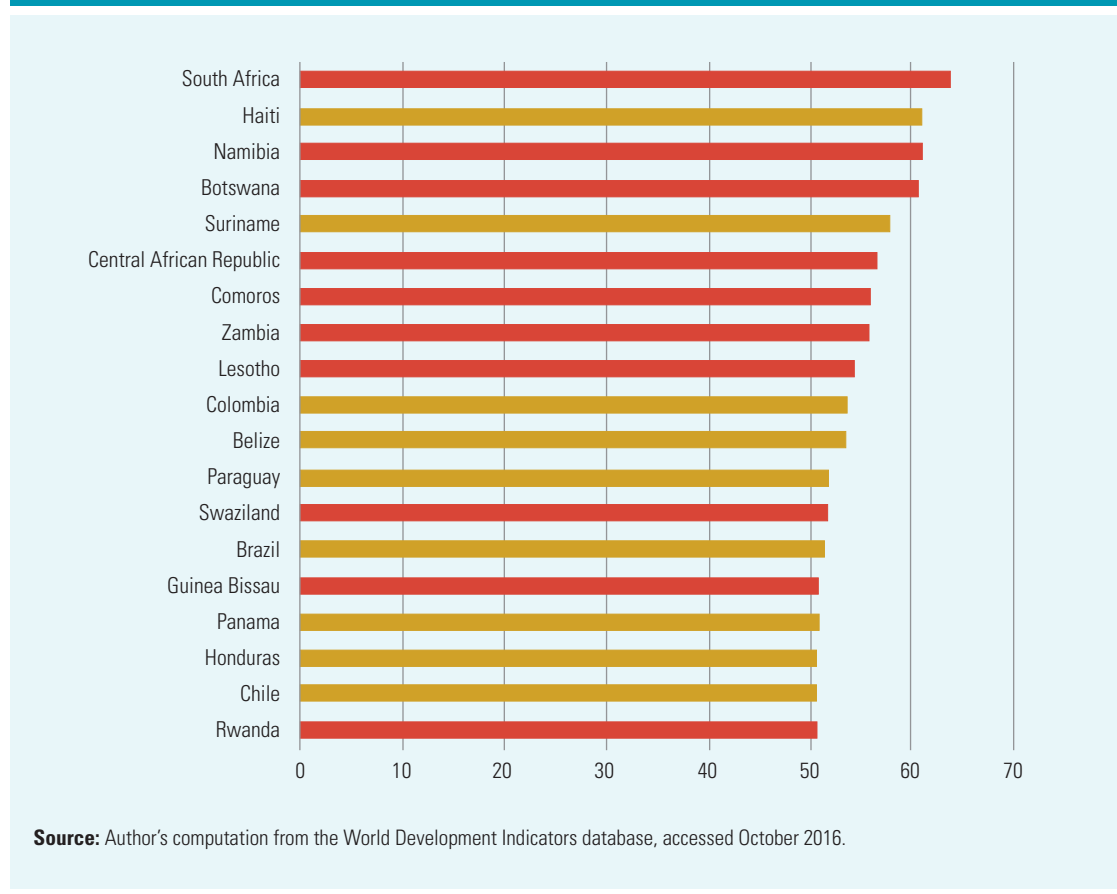
In sub-Saharan Africa, the debate about the levels and dimensions of income inequality remains inconclusive; there are diverging views regarding these issues. Income inequality is high, and according to the latest Gini index figures available, it fell from 0.475 to about 0.435 between 1993 and 2010 (Cornia, 2016:6). Yet, it rose by over 3.0 percentage points in one out of every four countries in the region.

---

<sup>3</sup> For detailed information on the bifurcation, trends and drivers of income inequalities in Africa, see Chapter 2 of this book.

This notwithstanding, the emerging reality is that Africa remains one of the most unequal regions globally. Ten of the 19 most unequal countries globally are in Africa (see figure 7.1). Most of these countries are in the Southern African region, with South Africa the most unequal country in the world. Inequality is still driven by the lopsided economic structure imposed by the apartheid regimes in the region, including unequal access to land and economic opportunities, which cannot be addressed overnight.

**FIGURE 7.1** The 19 most unequal countries globally



Income inequality is a double-edged sword. One school of thought believes some level of income inequality may be conducive to economic growth.<sup>5</sup> Another, which believes in demand-side economics, however, views extreme inequality as harmful to economic growth and human development. The latter's members believe that a more equal society favours the middle class and lower income group with a high propensity to consume. In addition, through the accelerator principle, a more equal society often leads to higher investments and employment by firms. As argued by Stiglitz (2015:287),

<sup>5</sup> This school of thought argues that too much income equality not only reduces the incentive for innovation and productivity, but also diminishes the animal instinct to take on risks and create wealth (Becker and Murphy, 2007; Conard, 2016). It recognizes the potency of supply-side economics in that a more unequal society promotes profit-making and favours higher-income groups with a greater propensity to save, thereby leading to a high level of investment and economic growth.

“...once inequality becomes extreme, harmful social, economic and political effects become evident. Extreme inequalities tend to hamper economic growth and undermine both political equality and social stability.” Extreme inequality is a social problem because it can be destructive through social resentment, conflicts and insurgencies, thereby impeding long-term development.<sup>6</sup> Rising income inequalities and unequal economic opportunities reduce aggregate demand,<sup>7</sup> especially through the accelerator principle, thereby slowing economic growth. Stiglitz (2012) links inequalities to shorter growth cycles. A misinterpretation of short cycles of economic growth, especially through incentives for the rich, can lead to economic instability. Stiglitz (2015) argues that countries experiencing high inequality tend to invest less in public goods such as infrastructure, education and technology that are vital for long-term economic growth and shared prosperity. To this end, pursuing a growth objective without equity is counterproductive, while growth that is job-rich, skills-enhanced and human capital-driven tends to reinforce long-term growth, shared prosperity, human development and social cohesion.

Africa’s high level of inequality poses a serious challenge to realizing the overarching goal of ‘leaving no one behind’ by 2030. Unless innovative ideas are formulated and implemented, achieving SDG 1, ‘End poverty in all its forms everywhere’ and SDG 10, ‘Reduce inequality within and among countries’ remains practically impossible. High inequality reduces the growth elasticity of poverty and hinders macroeconomic, political and social stability, which are required to drive sustained and inclusive growth and development.

Specifically, one of the targets of achieving SDG 10 is, ‘by 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average’ (UN, 2015). How does Africa fare on this target? Having the answer to this question at this early stage provides a good baseline for measuring progress and determining policies that promote its realization in the long term.

Between 1990 and 2012, the income share of the bottom 40 per cent of the population, on average, rose from 13.99 per cent to 15.24 per cent, i.e., by 1.25 percentage points. The share of income of the bottom 40 per cent increased in 25 countries (led by Zambia), remained stagnant in two countries (Democratic Republic of the Congo and Mauritius) and regressed in 15 countries (led by Cameroon) (figure 7.2). Most countries that increased the share of the bottom 40 per cent succeeded in reducing the income share of the top 10.0 per cent of the population and vice versa. The income share of the two groups fell in Botswana, Cameroon, Ghana and Lesotho, possibly as a result of the rising trend within the middle class, which, as an example, constitutes 47.6 per cent of Botswana’s population.<sup>8</sup>

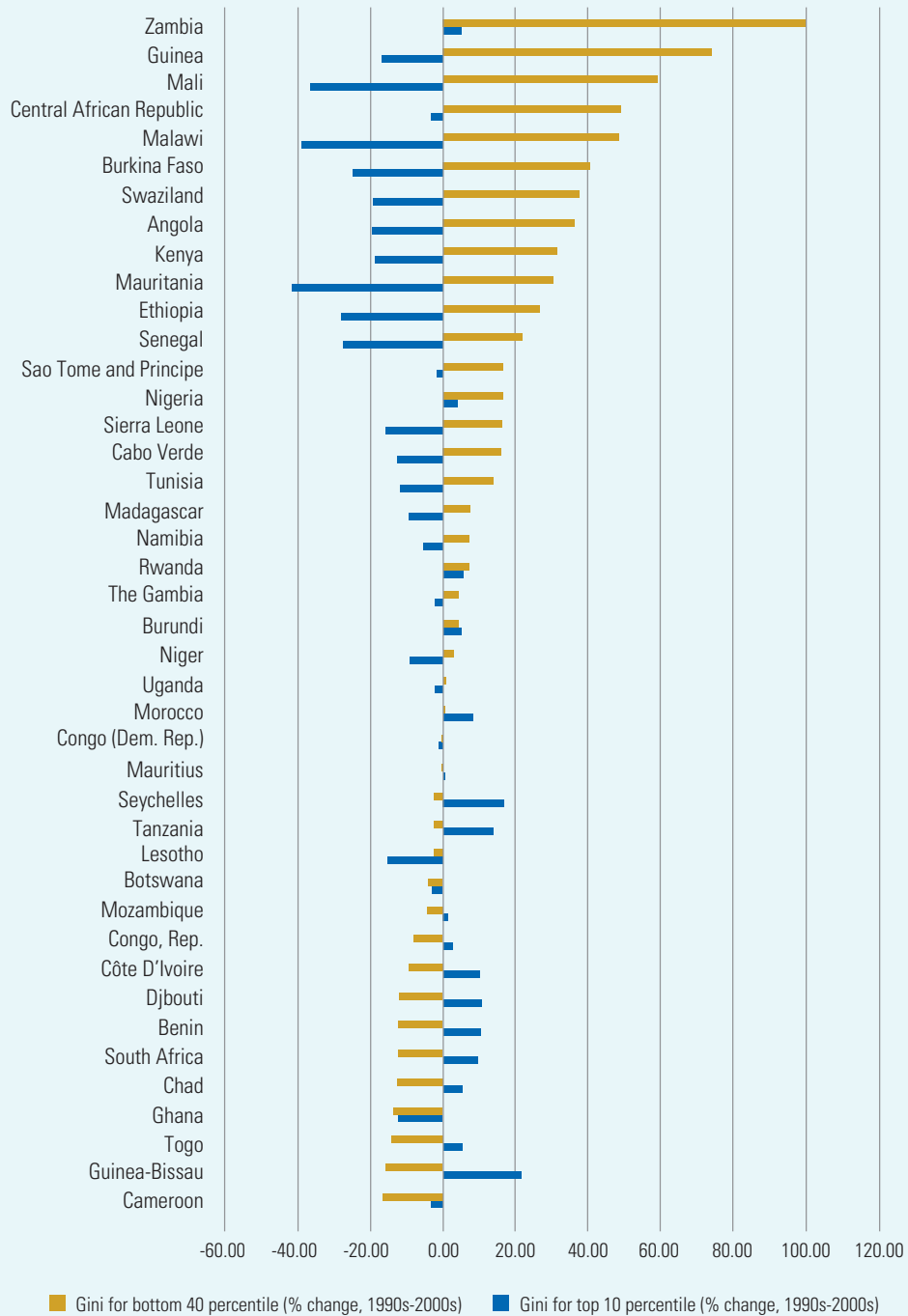
To avoid the variability associated with measuring inequality either by the extreme percentiles or quintiles, a severity index of the relative income share of the bottom 40 per cent to the top 10 per cent is used to measure the severity of inequality across African countries. On average, the index rose by 6.7 percentage points, from 40.8 per cent in the 1990s to 47.51 per cent in the 2000s. It rose in 25 countries (ranging from 0.43 percentage points in the Democratic Republic of the Congo to 46.97 percentage points in Mali) and declined in 17 countries (ranging from -0.21 percentage points in Botswana to -13.56 percentage points in Guinea-Bissau). The share of the bottom 40 per cent in

<sup>6</sup> For greater understanding of the risks and threats posed by inequality, see Easterly (2007), Stiglitz (2015) and UNDP (2013 and 2016).

<sup>7</sup> Based on Engel’s law, the rich tend to spend a smaller fraction of their incomes than the poor.

<sup>8</sup> For the mapping of the middle class in Africa, see [www.integreon.com/pdf/Blog/Grail-Research-The-Rising-Middle-Class-Africa\\_225.pdf](http://www.integreon.com/pdf/Blog/Grail-Research-The-Rising-Middle-Class-Africa_225.pdf)

**FIGURE 7.2** Changes in Gini for the top 10 and the bottom 40 percentiles, 1990s-2000s (%)

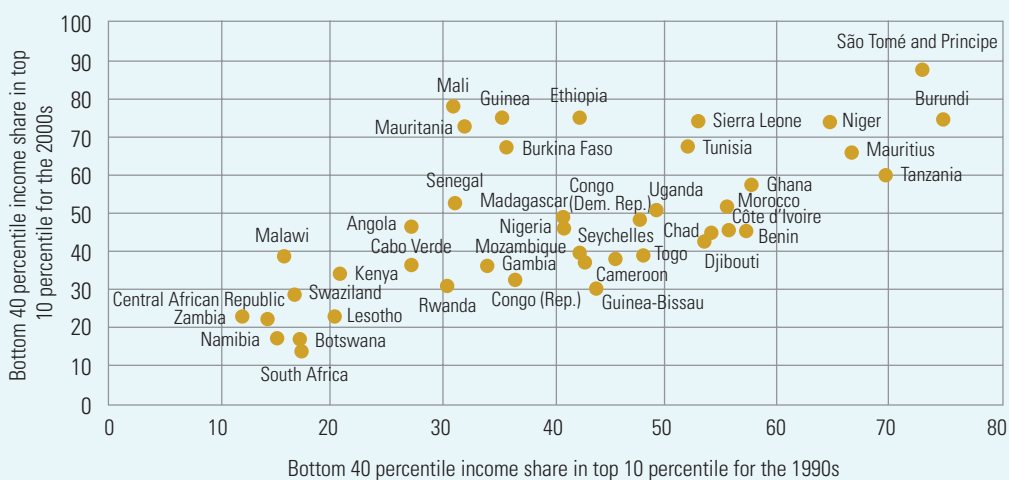


**Source:** Computed by the author from the World Development Indicators (accessed December 2016).

the top 10 per cent income is less than 20 per cent in South Africa, Botswana and Namibia, which shows a high intensity of income inequality. The index is higher than 70 per cent in Sao Tome and Principe, Mali, Ethiopia, Guinea, Burundi, Sierra Leone, Niger and Mauritania, which suggests a better distribution of income in these countries (see figure 7.3 for changes across countries based on data availability).

Some policies and programmes have made a significant difference in reducing inequality in Africa. The following have played critical roles in bridging the gap between the bottom 40 per cent and the top 10 per cent of the population: implementation of well-targeted social protection systems across many African countries (e.g. Ethiopia and Senegal); policies that facilitate school enrolment and transition across primary, secondary and tertiary education systems (e.g. Cabo Verde and Mauritania); the adoption of free basic health services to the marginalised (e.g. Mauritius and Tunisia); and the reform of the labour market institutions, especially the adoption of minimum wages (e.g. Mali, Burkina Faso and Zambia) (AfDB et al., 2011).

**FIGURE 7.3** Income share of the bottom 40 percentiles in the top 10 percentiles



**Source:** Computed by the author from the World Development Indicators. Accessed December 2016.

The widening salary and wage compression ratio is an important driver of inequality across the continent.<sup>9</sup> Many studies acknowledge the rising share of income going to the top earners as a key driver of inequality (Piketty and Saez, 2006; McCall and Percheski, 2010; Atkinson, Piketty and Saez, 2011; Piketty, 2014 and 2015; Odusola, 2015 and 2017). The International Labour Organisation illustrates how wage compression affects wage inequality (ILO, 2008). Lower inequality in France was induced mainly by wage compressions between the median and lowest wages; in Brazil, by

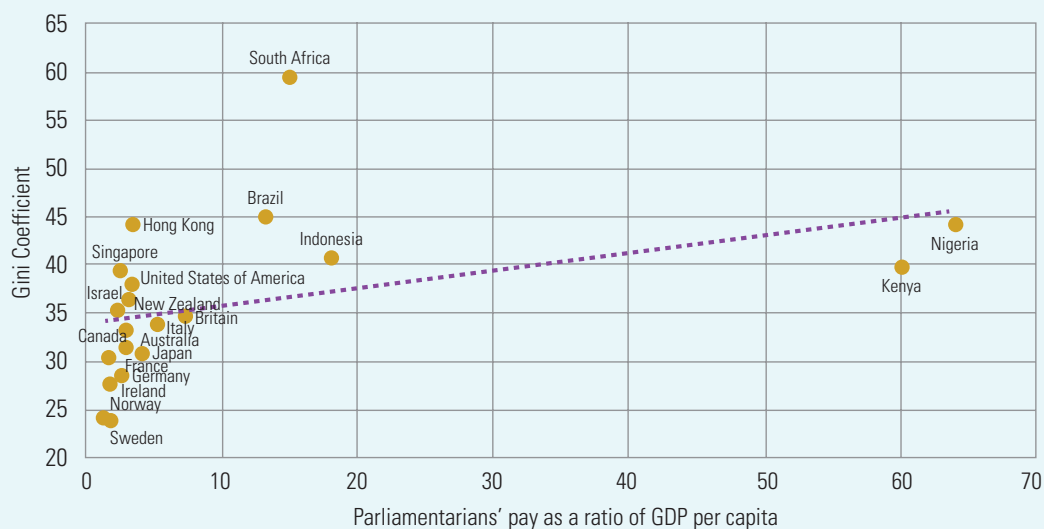
<sup>9</sup> Several factors account for this, including technological progress, international trade, democratisation that leads to state capture, and market and tax reforms (see Odusola, 2015).

narrowing the gap between median and higher wages; and in Mexico, by narrowing the gap between the lowest and highest wages.

While countries in other regions are making efforts to narrow wage gaps between the lowest and the highest income brackets, the opposite is the case in many African countries. A good example of this is the widening gap between the salaries of political office holders and national per capita incomes. Politicians influence the amount of their emoluments, with limited consideration of their countries' development context. The salaries of some African legislators relative to minimum wages and per capita income at the national level show wide wage compression ratios. While legislators from the Organisation for Economic Co-operation and Development (OECD) countries earned less than eight times their countries' per capita income (ranging from 1.3 times in Norway to 7.1 times in Britain), it is 64.0 times in Nigeria, 60.0 times in Kenya and 15.1 times in South Africa (Odusola, 2015). Based on available data from the World Development Indicators, the wage compression ratio in Africa is one of the worst.<sup>10</sup> It ranges from 8.0 (Burkina Faso) to 32.0 (Malawi) compared to OECD countries, which range from 1.5 (United Kingdom) to 3.3 (United States of America), and Latin America and the Caribbean, which ranges from 2.6 in Suriname to 33.0 in the Dominican Republic.

A good indicator of the compression ratio where comparable data are not available is the gap between the top-level salary and income per capita (a proxy for median income). A correlation index of 0.401 is established between these variables. Evidence from figure 7.4 indicates that a pronounced gap between parliamentarians' salaries and emoluments and their countries' per capita income tends to drive income disparity.

**FIGURE 7.4** Correlation between the Gini coefficient and parliamentarians' pay as a ratio of their countries' GDP per capita



**Source:** Odusola (2015) and the Standardized World Income Inequality Database (SWIID) Version 5.

<sup>10</sup> Wage compression is defined as the ratio of highest salary to lowest salary on the central government's main salary scale.

See <http://data.worldbank.org/data-catalog/wage-bill-pay-compression>



Based on available data, the correlation index between the change in the share of the bottom 40 per cent (between the 1990s and 2000s) and the minimum wage is -19.94. Minimum wage plays an important role in reducing the gaps between the super-rich and the poor. Narrowing wage gaps in Africa could help accelerate the reduction of inequality in Africa.

Corruption, which manifests in the form of poor service delivery, is the bane of poverty and inequality in several countries. The correlation index between changes in the income share of the bottom 40 per cent in the top 10 per cent of the population and transparency and corruption index<sup>11</sup> is 0.18. The lopsided nature of the educational system, which is at variance with labour market reality, is another factor that tends to complicate income disparity. The dynamics of economic structures, especially the predominance of traditional agriculture in the midst of commercial agriculture, the enclave extractive sector and the sophisticated financial and telecommunications sector play an important role in creating earnings disparity in many African countries. The dichotomy between rural and urban economies also drives disparity (Cornia, 2015). The wide urban-rural gap in access to education, health and housing services exacerbates inequality in income and opportunities, as well as in low intergenerational mobility (Lipton, 2013). Using fiscal policies to influence some of these determinants of inequality in Africa could further enhance income redistribution.

## 7.3 Overview of fiscal policies and distributions in Africa

### 7.3.1 Fiscal policies

Fiscal policy is an important tool that governments throughout the world use to promote macroeconomic stability, allocate resources to priority projects and activities, provide public goods to correct market failures, and redistribute incomes and wealth to the marginalised and underprivileged. If well-formulated and implemented, fiscal policy is crucial for driving economic growth, social stability and national development. Taxes, expenditures and transfers are key instruments for achieving these objectives. However, as pointed out by the United Nations Conference on Trade and Development (UNCTAD, 2012), the distributive role of fiscal policy has been neglected since the 1980s, with undue emphasis on macro-economic stability and on the allocative efficiency roles of fiscal policy.

Tax plays a dual role in promoting the equity agenda. First, an adequate mix of direct and indirect tax instruments plays an important role in income distribution. Progressive taxes that focus on personal income taxes (especially on top income earners), capital and wealth taxes, and indirect taxes that are skewed against conspicuous consumption tend to promote distributive policy. Second, taxation raises resources to finance social spending to support poor, vulnerable and marginalised people. In this regard, the level and component of taxes is important for the distributional objective of governments.<sup>12</sup>

Although levels of tax revenue and grants, as well as tax revenue as a share of GDP, have been increasing over time, they still remain low in Africa relative to those in developed and West Asian countries (table 7.1 and figure 7.5). This low level reduces the fiscal flexibility in funding social spending, including investing substantially in quality education, health and social protection services in the continent. The increase in the level of official development assistance (ODA) and in the non-

<sup>11</sup> This is based on the Country Policy and Institutional Assessment (CPIA) transparency, accountability and corruption in the public sector rating (1 = low to 6 = high) as published in the World Development Index.

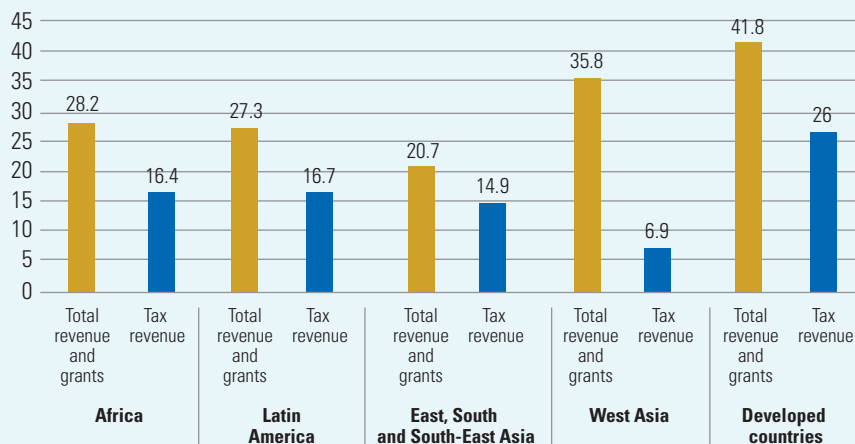
<sup>12</sup> See UNDP (2009) on how to make fiscal space work for the poor.

**TABLE 7.1** Fiscal revenue indicators in selected regions, 1991-2010 (% of current GDP)

Indicators	1991-1995	1996-2000	2001-2005	2006-2010
<b>Africa</b>				
<b>Total revenue and grants of which:</b>	22.1	21	23.8	28.2
Tax revenue of which:	14.4	14	15	16.4
VAT	4.4	4.4	4.9	5.4
Border tax	5.3	5	4.2	4.2
Income tax of which:	4	4.2	5.1	6.2
Corporate income tax	2.5	2.4	2.3	3.4
Other tax revenues	0.7	0.4	0.8	0.6
Social contributions	2	1.8	2.3	2.7
Other revenues	5.6	5.3	6.5	9.1
Ratio of income tax to VAT	0.91	0.95	1.04	1.15
<b>Latin America</b>				
<b>Total revenue and grants of which:</b>	21.3	22.7	23.9	27.3
Tax revenue of which:	12.5	13.8	14.8	16.7
VAT	4.7	5.4	6.4	7.3
Border tax	1.8	1.6	1.3	1.2
Income tax of which:	2.8	3.3	3.6	4.7
Corporate income tax	2	2.2	2.2	3
Other tax revenues	3.2	3.5	3.5	3.4
Social contributions	2.9	2.8	2.8	3.1
Other revenues	5.9	6.1	6.3	7.5
Ratio of income tax to VAT	0.6	0.61	0.56	0.64
<b>East, South and Southeast Asia</b>				
<b>Total revenue and grants of which:</b>	20.9	19.6	19.2	20.7
Tax revenue of which:	14.4	13.8	13.7	14.9
VAT	4.5	4.5	5.2	5.6
Border tax	2.4	1.7	1.5	1.4
Income tax of which:	4.8	5.4	5.4	6.2
Corporate income tax	3	3.1	3.5	4.3
Other tax revenues	2.7	2.2	1.6	1.7
Social contributions	0.7	1.2	2.2	3
Other revenues	5.8	4.6	3.3	2.8
Ratio of income tax to VAT	1.07	1.2	1.04	1.11
<b>Developed countries</b>				
<b>Total revenue and grants of which:</b>	42.8	42.2	41.5	41.8
Tax revenue of which:	26.9	26.3	25.9	26
VAT 6.3	6.7	7	7.1	
Border tax	1.1	1.1	0.8	0.6
Income tax of which	12.8	12.3	12	12.1
Corporate income tax	2.7	3.1	3.2	3.5
Other tax revenues	6.7	6.2	6.1	6.1
Social contributions	10.9	10.3	10.1	10
Other revenues	5.1	6.1	5.4	5.3
Ratio of income tax to VAT	2.03	1.84	1.71	1.7

Source: Author's compilation from UNCTAD (2012).

**FIGURE 7.5** Tax revenues-to-GDP ratio by regions, 2006-2010



Source: Author's compilation from UNCTAD (2012).

tax revenues from booming primary commodity prices accounted for the rising level of revenues and grants as a share of GDP not as a result of efficiency in tax administration.

Institutions play an important role in an increasing fiscal space in Africa. The Open Budget Index (OBI) provides a comprehensive view of a participatory, transparent and accountable budgetary process, including revenue generation and management.<sup>13</sup> The correlation index between the OBI and fiscal space is as high as 0.23; the coefficient of determination is 5.1 per cent. In 2010, for instance, South Africa was ranked the best globally in terms of OBI. It is therefore not surprising that it is one of the countries with the largest fiscal space in the continent. Namibia, Botswana, Ghana and Uganda also scored very high in OBI over the past years and are also among countries in Africa with revenue-to-GDP ratio of more than 10 per cent. By contrast, countries with low institutional ratings on OBI such as Nigeria, Democratic Republic of the Congo and Cameroon are among countries with very low fiscal space in the continent (Oduola, 2015 and 2017). The strong linkage between institutions and fiscal space points to the urgent need to address institutional issues relating to tax administration and management in order to expand tax revenues. Issues relating to fraud, tax evasion and discretionary tax waivers should be thoroughly reviewed and concrete actions taken. The rampant tax holidays granted to foreign firms create inequality of opportunities between local and foreign firms, which, in many instances, crowds out the activities of local firms.

The regional average tends to hide country peculiarities. The 37 countries with consistent data on tax revenue-to-GDP ratio fall into three distinct groups (table 7.2). The first group is composed of underperforming countries. Fourteen of those, led by resource-endowed countries such as Nigeria, Republic of the Congo and Democratic Republic of the Congo, recorded a tax revenue-to-GDP ratio

<sup>13</sup> The Open Budget Survey measures the state of budget transparency, participation and oversight across countries. A minimum set of standards has been established for national budgets. These include having in place: pre-budget statements; Executive budget proposals; the citizens' budget; the enacted budget; the mid-year budget report; the year-end budget report; the audit report; public engagement in the budgetary process; and improved legislative and audit institutions (IBP, 2012).

of at least 3.0 percentage points below the regional average of 17.71 per cent as of 2013. The second group includes countries that performed moderately with respect to the regional average (i.e., within 3.0 percentage points below or above the regional average). These are countries with tax revenue-to-GDP ratio of between 14.5 and 20.5 per cent. The third group, which outperformed the regional average by more than 3.0 percentage points, includes Lesotho, Algeria, Seychelles, Botswana and South Africa. This group is led by Lesotho; 50 per cent of its tax revenue-to-GDP share comes from the South African Custom Union (FIAS, 2006). Performance in Algeria, Seychelles, Botswana and South Africa is mostly driven by institutional improvement.

The components of tax revenue have been very dynamic across various regions. International trade taxes (e.g. border tax) have been declining since 1990 across all regions. Africa recorded the largest decline between 1991 and 2010, while the developed region has the least decline. Value-added tax rose across all regions during the period, with the largest increase from Latin America and the Caribbean. Income tax rose across all developing regions, while it declined in the developed region (table 7.1). The redistributive effect of the tax system depends on the relative share of direct tax to indirect tax, especially income tax, compared to value-added tax and the progressivity of the personal tax schedule. On a positive note, the share of income tax in value-added tax, for instance, has been rising in Africa.

### 7.3.2 Government spending

Public expenditure, either aimed at benefitting society as a whole or targeted to specific groups of marginalised or vulnerable people, can be a potent instrument to address poverty and inequality. The implementation of targeted or means-tested cash transfers could help reduce extreme poverty and

**TABLE 7.2** Tax revenue-to-GDP ratio (latest value, 2008-2013)

Countries more than 3 percentage points below regional average		Countries 3 percentage points below or above the regional average		Countries more than 3 percentage points above the regional average	
Nigeria	1.56	Ghana	14.87	Mozambique	20.79
Congo (Rep.)	5.95	Burkina Faso	15.03	Liberia	20.88
Congo (Dem. Rep.)	8.35	The Gambia	15.13	Tunisia	21.04
Ethiopia	9.21	Benin	15.58	Namibia	23.12
Central African Republic	9.46	Mali	15.63	Morocco	24.49
Madagascar	10.09	Kenya	15.90	South Africa	25.49
Uganda	10.99	Zambia	15.96	Botswana	27.13
Niger	11.34	Togo	16.39	Seychelles	31.21
Sierra Leone	11.69	Cabo Verde	17.79	Algeria	37.36
Tanzania	11.71	Angola	18.84	Lesotho	58.69
Egypt	13.16	Mauritius	18.99		
Rwanda	13.67	Senegal	19.18		
Sao Tome and Principe	14.02	Equatorial Guinea	20.48		
Côte d'Ivoire	14.23				

**Source:** Compiled from World Development Indicators (accessed December 2016).

universal provision of education and health services can address both inequality and overall economic development. The form of social spending to adopt depends, to a large extent, on the state's capacity to raise revenues on a sustainable basis. Countries with capacity to effectively raise and judiciously utilise large amounts of revenue tend to be more successful in using social transfers and providing social services to the majority of the population in order to influence income distribution.

The expanding revenues base since 1996 has created fiscal space to increase government expenditure in Africa as well as in Latin America (table 7.3). Total expenditure in Africa rose from 23.8 per cent in 1996-2000 to 27.6 per cent in 2006-2010, essentially driven by the rise in recurrent and capital spending over the period. The fiscal space – the capacity to spend – was also boosted by the lower interest payment resulting from debt relief enjoyed by the region. As of March 2016, 31 of the 36 Heavily Indebted Poor Countries (HIPC) that were qualified, eligible or potentially eligible to receive HIPC Initiative assistance are from Africa.<sup>14</sup> Three other countries - Eritrea, Somalia and Sudan - have reached the pre-decision point. The International Monetary Fund (IMF, 2016) puts the estimated total cost of providing debt relief to the 39 countries under the enhanced HIPC Initiative to be around US\$75 billion in end-2014 net present value terms.

Unlike well-institutionalized social protection mechanisms in Latin America, social protection coverage, quality and level of assistance still remain very limited in Africa. Yet, such mechanisms in Africa have assumed various forms, including free provision of tax-funded national health services, the use of voucher instruments, cash transfer schemes and contribution-based system such as the social health insurance. Social protection implementation is more pronounced in Southern African countries with government funds committed to them, while in others, social protection is funded essentially by ODA.

The comprehensive review of social protection in Africa by AfDB et al. (2011) shows its potential impact on poverty and inequality reduction. For instance, it shows that in Mauritius, the poverty rate for older people living with more than one younger person was 30 per cent lower than it would be without the universal pension. Also, in South Africa, the social grant reduced the poverty headcount by 4.3 per cent and the destitution gap by 45 per cent, and the child support grant reduced the poverty gap among recipients by 47 per cent. The comprehensive system of social grants in South Africa has helped to reduce the Gini coefficient by three percentage points, thus doubling the share of the poorest quintile in national incomes. The implementation of cash transfers in Namibia reduced poverty incidence by 4.3 per cent, the poverty gap by 18.4 per cent, and poverty severity by 27.5 per cent. The implementation of the Productive Safety Nets Programme (PSNP) in Ethiopia between 2005 and 2008 prevented vulnerable people from selling their assets as a result of shocks; 55 per cent of the beneficiaries affirmed that the programme increased their household incomes and 7.8 million that previously relied on emergency food relief became food-secure.

The pension scheme in Lesotho, Namibia, South Africa and Swaziland reached between 80 and 100 per cent of the elderly at an estimated cost of 1.0-3.0 per cent of GDP. Based on this finding, UNCTAD (2012) concluded that implementing social protection in Africa is fiscally, administratively and politically feasible. Evidence from Odusola (2015) further shows that many African countries still depend heavily on ODA for social spending. A substantial part of ODA should be devoted to building capacity for tax administration.

---

<sup>14</sup> For the list of these countries, see [www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/11/Debt-Relief-Under-the-Heavily-Indebted-Poor-Countries-Initiative](http://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/11/Debt-Relief-Under-the-Heavily-Indebted-Poor-Countries-Initiative).

To this end, public spending, if well managed, plays an important role in expanding the reach of social services, especially to rural communities, poor families, and unemployed and marginalised people who could not have been reached through the interplay of market forces. In this regard, public spending could help correct market failures by providing social services and social transfers in the face of unequal endowments and the associated undesirable outcomes imposed by market forces. One important strategy for boosting equality of opportunity and promoting intergenerational mobility is to improve the access of low-income families to quality education, especially tertiary education, by providing free tuition, scholarships and loans. In addition, access to basic health services would be improved, such as universal health services in Egypt, Mauritius and Tunisia.<sup>15</sup> Implementation of these services has allowed these countries to be grouped among the most equal in Africa and in the world with Gini coefficients of less than 0.360 as of 2013.

## 7.4 Distributional effectiveness of fiscal policy in Africa

The previous sections reveal that taxes, transfers and public expenditures are important instruments for distributing income and economic opportunities among the population. The framework for measuring the effectiveness of fiscal policy on income distributions across countries is obtained from the Standardized World Income Inequality Database (SWIID). It is measured as the difference between the gross Gini (before taxes and transfers) and the net Gini (after taxes and transfers) (e.g. Solt, 2009; Cevik and Correa-Caro, 2015).

Many African countries experienced erosion in the distributional impact of fiscal policy, as the rate of increase in the net Gini coefficient is faster than that of the market Gini coefficient. Of the 47 countries where data are available, 29 countries recorded declines in their fiscal policy distributional effectiveness (see Odusola, 2015). In this regard, examples of countries with substantial performance (35 per cent increase and above) include Angola, Mozambique, Democratic Republic of the Congo, South Africa and Togo. For instance, in South Africa, between 1965 and 2011, market Gini rose by 17.6 per cent while net Gini rose by 14.9 per cent. The dismantling of apartheid, the expansive social protection coverage, innovative revenue management made this possible.

The effectiveness of fiscal policy across countries with available data in Africa, as measured by the difference between the market and net Ginis, is shown in figure 7.6. South Africa recorded the highest performance on this indicator, followed by Burkina Faso, Kenya and Gabon. This suggests that the level and composition of taxes and the quality of spending, as well as its distribution across groups and spatial locations, are contributing to a reduction in inequality in most of these countries. Many countries are deepening their direct taxation, while some are shifting from indirect to direct taxation to reduce income inequality. The reform in the tax collection system, which is blocking tax evasion by companies and individuals in South Africa, is also contributing to the enviable performance in fiscal distribution in the country. The implementation of fiscal decentralisation in Kenya, which has been adjudged to have promoted allocative efficiency and equity (Bakaga, 2008), could be one of the factors explaining fiscal distribution effectiveness in the country. The increasing wave of public participation in budgeting and the introduction of the social accountability matrix in service delivery at the county level (World Bank, 2015) are other factors driving the distributional effectiveness of fiscal policy in Kenya.

---

<sup>15</sup> For detailed information, see Stiglitz (2015) on Mauritius; Verme et al. (2014) on Egypt; and Trablelsi (2013), AfDB (2011) and Aldana and El Fassi (2016) on Tunisia.

**TABLE 7.3** Government expenditure in selected regions 1991-2010 (% of current GDP)

Indicators	1991-1995	1996-2000	2001-2005	2006-2010
<b>Africa</b>				
<b>Total revenue and grants of which:</b>	26.6	23.8	26.2	27.6
Capital expenditure	5.5	5.5	6.6	7.8
Current expenditure of which:	21.1	18.3	19.6	19.8
Interest payment	2.7	2.4	2.5	1.7
<b>Latin America</b>				
<b>Total revenue and grants of which:</b>	24.5	26.6	27.7	29.8
Capital expenditure	5.2	5.3	4.6	5.7
Current expenditure of which:	19.3	21.3	23.1	24.2
Interest payment	2.8	2.8	3.3	2.3
<b>East, South and South-East Asia</b>				
<b>Total revenue and grants of which:</b>	5.7	5.1	4.8	4.8
Capital expenditure	5.2	5.3	4.6	5.7
Current expenditure of which:	16.3	15.5	16.7	17.3
Interest payment	4.4	2.5	2.5	2.1
<b>West Asia</b>				
<b>Total revenue and grants of which:</b>	37.7	33.6	32	30
Capital expenditure	4.9	5	5.7	6.5
Current expenditure of which:	32.8	28.5	26.3	23.6
Interest payment	2.7	4.7	4.1	2.2
<b>Developed countries</b>				
<b>Total revenue and grants of which:</b>	47.4	44.1	43.1	44.5
Capital expenditure	5	4.6	4.3	3.7
Current expenditure of which:	42.5	39.6	38.8	39.7
Interest payment	5.2	3.9	2.7	2.3

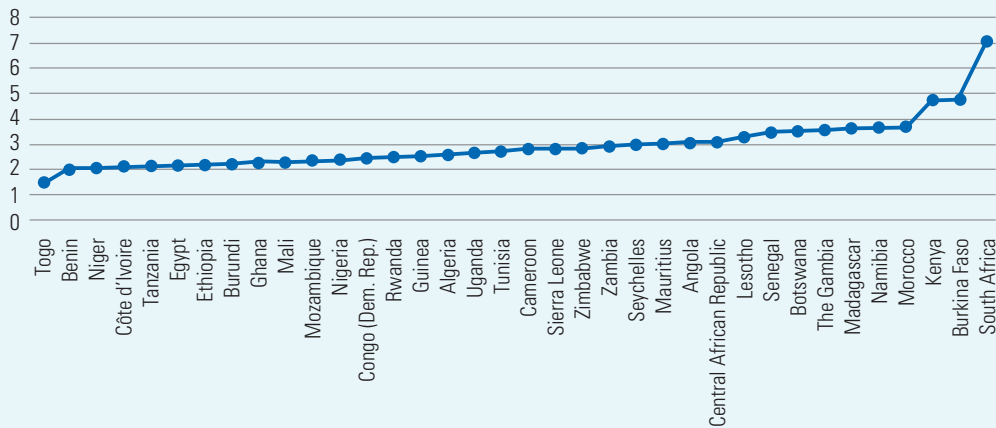
Source: Compiled from UNCTAD (2012).

## 7.5 Analysis of the linkage between fiscal policy, distribution and inequality

### 7.5.1 The analytical framework

Improved fiscal policy effectiveness enhances economic efficiency and improves distributional coverage. Fiscal policies affect poverty and inequality through taxes, transfers and public expenditure. The relationship is not automatic or linear. Progressive taxes reallocate and distribute resources from the rich and super-rich to marginalised and vulnerable groups. The progressivity of direct taxes (such as those levied on income, wealth and inheritance) and indirect taxes (such as on consumption) is an important channel.<sup>16</sup> Efficient and well-targeted public spending on education, vocational and entrepreneurial training, and basic health services are vehicles to reduce income inequality. For

<sup>16</sup> For instance, see Salotti and Trecroci (2015), De Freitas (2012) and Benhabib, Bisin and Zhu (2011) on how taxation (including taxes on capital, income and property) could serve as an instrument to reduce income inequality and disparity in opportunities.

**FIGURE 7.6** Effectiveness of fiscal distribution in Africa

**Source:** Author's computation from the SWIID Database.

instance, public spending that proactively supports girls and women's education could help address inter-generational poverty, while those directed at vocational skills of unskilled labour could accelerate reduction in income inequality. Quality investment in human capital accumulation (including education and skill development) could drive poverty and inequality reduction.

The transmission channels between fiscal policies and reduction in inequality are progressive taxes, well-targeted transfers and pro-poor quality expenditures. An effective redistribution of the total tax burden towards the rich via personal and corporate income taxes, and reallocations of public spending to favour the poor and marginalised groups play a strong role in substantially reducing poverty and inequality.

More equitable access to economic, social and political resources not only enhances the well-being of the population, but also promotes better income distribution (IMF, 2014). Even in a majority of African countries where the fiscal system is mostly regressive, should these regressively mobilised resources be used to finance progressive spending, such as meeting the needs of the marginalised, this could generate progressive distribution. A good example is using revenues from value-added tax to support progressive spending on education, health and transfers to the poor.

Lessons can be drawn from China and Thailand about using fiscal instruments to influence income distribution. With regard to China, Cevik and Correa-Caro (2015) show the contrasting effects between taxes and government expenditures on inequality. Government spending shows some worsening impact, whereas government taxes improve inequality. The ability of fiscal policies to counter other drivers of poverty and inequality also matters. For instance, fiscal policies that are progressive and are able to strengthen accountability and transparency in collecting and using public resources may produce stronger effects on poverty and inequality.

In Thailand, the redistributive policies targeted rural areas and focused on social protection for poor households, including: provision of financial transfers to the elderly poor; universal health coverage; 15 years' of free education; debt suspension for small-scale farmers, which affected 1.9 million



families; introduction of micro-credit schemes through a revolving fund; implementation of the One Village One Product Programme; and provision of agricultural inputs to farmers. All of these policies contributed significantly to reducing inequality (UNCTAD, 2012; Boonperm, Haughton and Khandker, 2009). The Thailand Village and Urban Revolving Fund, which provided about US\$22,500 to every village and urban community in Thailand as working capital for locally run rotating credit associations, started with about US\$2.0 billion in 2001. By May 2005, the committee managing the Fund had made loans totalling US\$8.0 billion. The Fund benefitted 74,000 villages and more than 4,500 urban communities. The impact of the Fund, which disproportionately focused on borrowers from poor and agricultural families in 2004, shows that borrowers had, on average, 1.9 per cent more income, 3.3 per cent more expenditure and about 5.0 per cent more ownership of durable goods. Due to the implementation of the various reforms, the Gini fell from 0.452 in 1981 to 0.379 in 2013.

In Pakistan, a computable general equilibrium analysis of the way in which fiscal policy impacts income inequality shows that a combination of fiscal instruments is required to correct income distribution (Bhatti, Naqvi and Batool, 2012). These authors conclude that in Pakistan, the use of sales tax or transfers can reduce income inequality but could exacerbate budget deficit. An appropriate fiscal policy mix of sales tax, income tax and government expenditure not only reduces income inequality, but also helps address the challenge of budget deficit.

Salotti and Trecroci (2015) show how inequality is sensitive to fiscal policy (the bottom and the top tails of income distribution). Using data for advanced countries, they found that the inequality-reducing power of fiscal policy (using public debt instruments) ranged between -0.05 and -0.18, while those of government final consumption expenditure ranged between -0.23 and -0.55. When efficiency and quality of government spending is assured, public expenditure is a potent tool to redistribute wealth and opportunities to the lowest quintiles of the population. The equalising impact of public spending on education, health and social spending is prominent.

The experience from OECD countries reveals the importance of policy experiments in reducing inequality in labour earnings. It shows that a 10 per cent rise in post-secondary school education, job projection on temporary work relative to OECD average, and union membership reduces the income share of the top ten percentile relative to the bottom ten percentile from 0.04 to 0.08. It is also evident that cash transfers, such as pensions, unemployment and child benefits, account for the overall distributive impact, while taxes account for one-quarter. However, the impact across OECD countries varies according to the size, composition and progressivity of taxes and cash transfers (OECD, 2012; Joumard, Pisu and Bloch, 2012). A major lesson from OECD countries shows that tax progressivity explains the redistributive impact of taxes more than the tax-to-GDP ratios tends to suggest. Several countries with high tax-to-GDP ratios show lower distributive impact due to lower levels of tax progressivity. The lower impact arises from three channels: (i) the tax mix that favours consumption taxes and social security contributions over more progressive personal income and wealth and inheritance taxes; (ii) limited progressivity of tax schedules, especially on certain types of incomes or deductions such as interest income, mortgage interest and charitable contributions, particularly in the Nordic countries; and (iii) emphasis on tax expenditures that favour high-income groups (OECD, 2012).

IMF (2014) provides a comprehensive review of the evidence of fiscal policy on inequality in advanced and developing economies. Its conclusions show that direct income taxes and transfers reduced inequality in advanced countries by an average of one-third; it reduced market Gini coefficient by

about 14 percentage points in 2005. The reduction through income taxes is even greater than means-tested transfers. The redistributive impacts of fiscal policy were reduced when the benefits drastically declined and when taxes became less progressive. As a result, the percentage change in market Gini offset by taxes fell from 16.9 per cent during 1985-1995 to 10.9 per cent during 1985-2005, while those of transfers also declined from 46.7 per cent to 34.4 per cent during the same period. IMF's main conclusion is that the income disparities across regions during the period 1990-2010, especially between the two most unequal regions, SSA and Latin America and the Caribbean, and the two most equal regions, emerging Europe and advanced economies, can be explained by differences in levels and compositions of taxes, public spending and labour market institutions (IMF, 2014).

### 7.5.2 Methodology, data and data sources

Different variants of taxes and social spending indicators have been used to analyse the linkage between income inequality and fiscal policies and distribution. The disaggregation of fiscal policies into its components provides a good opportunity to examine the impact of each instrument on inequality. This follows the approach of Salotti and Trecroci (2015) and Cevik and Correa-Caro (2015).

Using a panel data of 41 African countries with at least two data points between 1990 and 2012, an ordinary least squares technique was employed to estimate the various parameters. The model is run on 145 data points. The dependent variable is the Gini coefficient, as provided by the SWIID Database Version 5. The explanatory variables are as indicated in equations 1 and 2 below. A sensitivity analysis on the impact of only fiscal variables is also employed.

$$\text{Gini} = \beta_0 + \beta_1 \text{fd} + \beta_2 \text{g} + \beta_3 \text{rr} + \beta_4 \text{av} + \beta_5 \text{mv} + \beta_6 \text{sv} + \beta_7 \text{tr} + \beta_8 \text{st} + \beta_9 \text{he} + \beta_{10} \text{xr} + \beta_{11} \text{op} + \beta_{12} \text{ms} + \mu \quad (1)$$

$$\text{Gini} = \alpha_0 + \alpha_1 \text{tr} + \alpha_2 \text{st} + \alpha_3 \text{tgs} + \alpha_4 \text{cid} + \alpha_5 \text{tit} + \alpha_6 \text{tip} + \Omega \quad (2)$$

Where: Gini stands for Gini coefficient, fd = fiscal distribution measured as the difference between market and net Ginis based on SWIID Version 5, g = GDP growth, rr = share of natural resource rent in GDP, av = agricultural value added as a share of GDP, mv = manufacturing value added as a share of GDP, sv = services value added as a share of GDP, tr = tax revenue-to-GDP ratio, st = subsidies and transfers as a share of total expenses, he = health expenditure per capita, xr = external resources for health as a share of total expenditures on health, op = out-of-pocket expenditure as a percentage of private expenditure on health, and ms = mean year of schooling. Other variables are tgs = taxes on goods and services as a percentage of revenue, cid = custom and other import duties as a percentage of tax revenues, tit = taxes on international trade as a percentage of revenue, and tip = taxes on incomes, profits and capital gains as a percentage of revenue.  $\beta_i$  and  $\alpha_i$  are parameter estimates, and  $\mu$  and  $\Omega$  are error terms.

The Gini figures are sourced from the SWIID Database Version 5. Other variables are from the World Development Indicators from the World Bank database, except those complemented by the United Nations Children's Fund (UNICEF) database on health-related variables.

### 7.5.3 Analysis of empirical results and policy options

In Africa, over the 1990-2013 period, evidence from bivariate analysis on the relationship between fiscal space, on the one hand, and market and net Gini (after taxes and transfers) coefficients

(averages), on the other, suggests that there are some elements of tax regressivity. Gini coefficients are positively correlated with fiscal space (figure 7.7).<sup>17</sup> All countries with a revenue-to-GDP ratio of 20 per cent and above (except Algeria, Morocco and Seychelles) have income inequality (market and net Gini coefficients) that are over 0.5. These countries (Algeria, Morocco and Seychelles) are either not resource-rich or are not heavily dependent on primary commodities for their exports and revenues. The need to enhance non-extractive revenues by reducing governments' heavy dependence on revenues from the extractive sectors in countries such as Nigeria and Democratic Republic of the Congo, for instance, could help reverse the positive linkage. This also calls for improving progressive taxation in countries with high fiscal space and high income inequality, such as Lesotho, Namibia, South Africa, Angola and Zimbabwe. The coefficient of determination, which is 13.3 per cent, is relatively high, while correlation coefficients for both gross and net Gini measures are over 0.36. To this end, a progressive tax system and diversification of government revenues away from the extractive sector could help to reduce inequality in the continent.

The evidence from the multivariate analysis also confirms the regressive nature of tax revenue in Africa. The relationship between tax revenue-to-GDP ratio and income inequality remains positive but not statistically significant. This may be as a result of the low tax revenue-to-GDP ratio in Africa. Since improved revenues enhance the capacity and flexibility of the state to make spending choices that have a strong impact on poverty and inequality - especially on health, education and social services - it is important to foster the poverty- and inequality-reducing power of fiscal policies. In this regard, expanding the tax bases in African countries remains critical. This would entail improving enforcement on existing tax handles and levying new taxes (Odusola, 2006), including by increasing marginal tax rates and bringing the informal sector into the tax bases in a way that does not encourage underground economic activities. Policies that promote economic growth also increase the tax base of the economy.

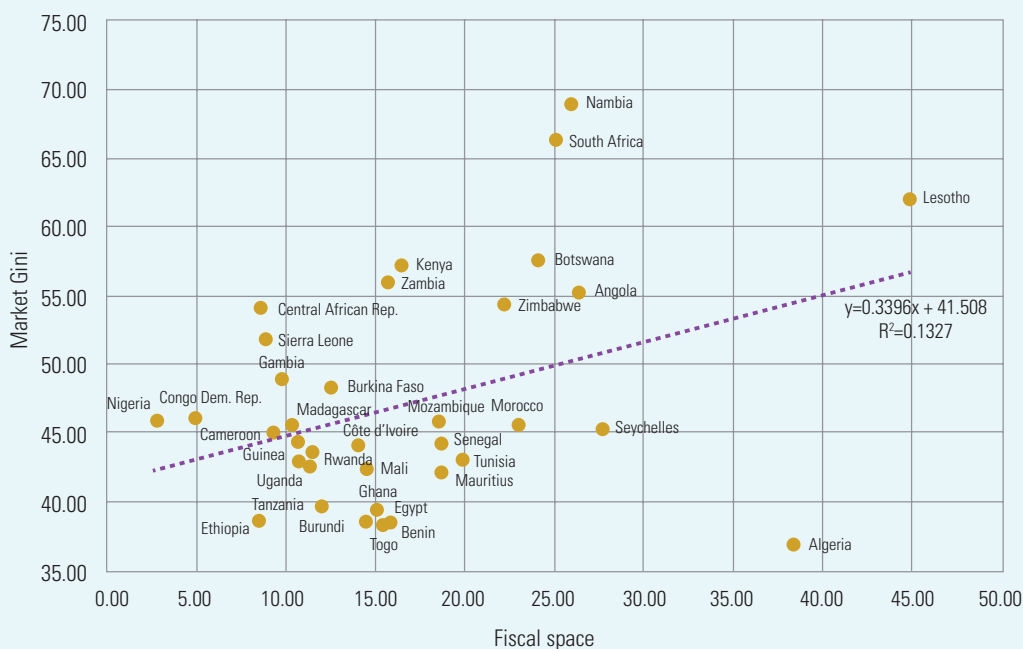
Total natural resource rent as a share of GDP appears to have a weak impact on inequality.<sup>18</sup> Due to the enclave nature of this sector, the prevalence of Dutch disease, concentration of asset ownership and associated inefficiencies, natural resource rent is expected to drive income inequalities. Given the sustainability agenda and the heavy resources flowing from this sector, it is imperative to ensure that natural resource rent caters for current and future generations and generates a strong impact on inequality reduction. Decoupling government revenues from the extractive sector could help avert variations in revenues from primary commodities, such as the current bust in primary commodity prices. Raising more revenues from personal and corporate income taxes helps to increase tax progressivity. It also enhances fiscal citizenships across countries. Fiscal citizenship helps to engender accountability and transparency in the use of public budgets, both public expenditures and revenues. Quid pro quo in tax management also helps to boost and smooth revenues across countries. The need to decouple government revenues from the extractive sector is further reinforced by the fiscal distributional effectiveness index, which is positive and statistically significant at 1.0 per cent. A 1.0 per cent increase in the level of fiscal distribution raises income inequality by 1.7 per cent. This is a clear indication of regressive distributional policies. Most of the benefits of distributions go to the

---

<sup>17</sup> The relationship between fiscal space and income inequality for both market and net Gini coefficients are the same; only the net Gini is presented here.

<sup>18</sup> Total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents and forest rents as defined in the World Development Indicators. Lumping together multiple natural endowment rents, with varying contexts in terms of capital-labour intensities and linkages with the rest of economy, blurs the impact on inequality.

**FIGURE 7.7** Correlation between fiscal space and market Gini coefficients (averages)



**Source:** Author's computation from the World Development Indicators database (accessed December 2016).

rich, not the poor. A thorough review of the distributional policies and strategies is critical to reverse the regressive nature of fiscal distribution in Africa.

The implementation of subsidies and transfers seems to be yielding some dividends. It appears to be an equalising factor, and the relationship between subsidies and transfers and the reduction of income and economic inequalities is statistically established at 1.0 per cent level of significance. This tends to confirm the finding from Younger, Myamba and Mdadila (2016) on the fiscal incidence in the United Republic of Tanzania. Improving the design and operational effectiveness of subsidies and transfers, including better targeting, could further help to reduce income and economic inequalities in Africa.

GDP growth also appears to be an equaliser. A 1.0 per cent rise in economic growth reduces inequality by 0.45 per cent. A structural analysis of the growth shows that the value added in manufacturing, agriculture and services helps mitigate inequality in Africa. The results for manufacturing and agriculture value added are established at 5 per cent level of significance, while that of services value added is established at 10 per cent. The relative strength of manufacturing value added is strongest, followed by agriculture value added. This tends to support the IMF's (2011) conclusion that growth equalises when employment opportunities in rural areas and labour intensity in manufacturing improve.

Both the mean year of schooling and external resources for health services as a share of total health expenditure have no significant effect on inequality. However, out-of-pocket expenses as a share of total private expenditure appear to be a strong equaliser. A 1.0 per cent rise in out-of-pocket expenditure reduces income inequality by 0.22 per cent and is statistically established at a 1.0 per cent level of

significance. This might not be the case for all, especially the poor and the marginalised, who may not be able to afford out-of-pocket expenditures, as shown in Mauritius, Egypt and Tunisia with their universal health coverage. The correlation coefficient of -0.216 provides evidence that improvement in the transition rate from primary to lower secondary education between 1999 and 2013 tends to reduce inequality. Through substantial investment in quality and accessible education and health services, fiscal policy is a common factor in simultaneously reducing poverty and inequality in Egypt, Tunisia, Mauritius and Morocco. Fiscal policy could also be used to proactively expand employment opportunities, modernize their economies, and maintain effective and well-targeted social protection mechanisms that benefit the marginalised. Deepening skills acquisition programmes for unskilled and uneducated individuals is vital to addressing inequality.

Making tax instruments an equalising factor remains critical. Comparing the two intercepts from the two models in table 7.4 shows a lower Gini response function when all explanatory variables are fiscal policy instruments as opposed to when they are a fraction of the explanatory variables. When tax and transfer variables are grouped together, only taxes on income, profit and capital gains are statistically significant. This further confirms that taxes are generally regressive in the continent, suggesting that income taxes have a greater impact on low-income groups to the extent that their impact outweighs corporate profit and capital gain taxes. This points to the urgent need for tax system reform in Africa.

**TABLE 7.4** Regression results using Gini coefficient as the dependent variable

Variables	Model 1	Model 2
Intercept	79.052 (5.892)*	26.724 (3.971)*
Tax revenue-to-GDP ratio (tr)	0.117 (0.860)	0.148 (0.688)
Fiscal distribution (fd)	1.661 (4.020)*	
Subsidies and transfers as a share of total expenses (st)	-0.0001 (2.993)*	-0.0001 (1.262)
Share of natural resource rent in GDP (rr)	-0.068 (0.670)	
GDP growth (g)	-0.455 (1.601)***	
Agricultural value added as a share of GDP (av)	-0.262 (2.013)**	
Manufacturing value added as a share of GDP (mv)	-0.332 (2.046)**	
Services as a share of GDP (sv)	-0.252 (1.778)**	
Mean year of schooling (ms)	0.658 (1.388)	
External resources for health as a share of total expenditures on health (xr)	0.069 (1.064)	
Out-of-pocket expenditure as a percentage of private expenditure on health (op)	-0.219 (5.421)*	
Health expenditure per capita (he)	-0.008 (0.953)	
Taxes on goods and services as a % of revenue (tgs)		0.081 (0.663)
Custom and other import duties as a % of tax revenues (cid)		0.155 (1.085)
Taxes on international trade as a % of revenue (tit)		-0.055 (0.382)
Taxes on incomes, profits and capital gains as a % of revenue (tip)		0.588 (4.550)*
<b>Estimated statistics</b>		
Adjusted R squared (R <sup>2</sup> )	0.712	0.513
F-statistic	14.817*	9.132*

**Notes:** Figures in parenthesis are t-statistics and \*, \*\* and \*\*\* indicate 1, 5 and 10 per cent levels of significance, respectively.

Reducing income inequality calls for increasing the progressivity of the tax system, including by increasing marginal tax rates at the top level, reducing tax brackets and eliminating tax loopholes and exemptions, particularly tax holidays and incentives to multinational companies. Broadening the tax bases in the face of a high level of informality reinforces the need to deepen value-added tax administration and bring many actors outside the tax handle into the tax bases across many African countries. The tax system should be reoriented towards middle-class and top income earners, while public spending should target poor families, the elderly, the unemployed and the marginalised. Social security contribution is at an infant stage in many countries. It must thus be overhauled and strengthened across the public and private sectors to promote social equity and life-cycle income smoothing, especially at old age or during periods of unemployment or underemployment.

## 7.6 Conclusions

In the era of the 2030 Agenda for Sustainable Development, addressing inequality is not only crucial for political stability and social cohesion, but it is also good economics and a development imperative. However, regressive tax systems with a high incidence on low-income groups, low levels of taxes and social spending, and a low distributional impact of fiscal instruments limit the distribution impact of fiscal policy in Africa. The volume and level of public spending and coverage of transfers depend on the aggregate revenues mobilised. Expanding the fiscal space (tax revenue-to-GDP ratio), from the current 17.0 per cent to over 30.0 per cent, and adopting an appropriate fiscal policy mix are highly desirable to shift the frontier of fiscal distribution and promote fiscal citizenship. Moreover, increasing access to social services and implementing effective social protection is fiscally, technically and politically practicable in Africa.

Both bivariate and multivariate analyses show the regressive nature of tax revenue in Africa, although it is not statistically established. The impact of the mainstay of most African economies (i.e., natural resource rent) on inequality remains weak. This is an important finding, suggesting an urgent need to decouple government revenues from the extractive sector. The positive relationship between the fiscal distribution effectiveness index and income inequality creates a puzzle; that is, a 1.0 per cent increase in the level of fiscal distribution raises income inequality by 1.7 per cent, indicating regressive distributional policies under which the rich benefit more than the poor. GDP growth appears to be an equaliser with a 1.0 per cent rise in economic growth reducing inequality by 0.45 per cent.

If well-formulated and implemented, fiscal policies could be powerful tools to make a dent, directly and indirectly, in income inequality in Africa. First, pro-equity fiscal policies per se are good in their own right because they have a direct impact on reducing income inequality. Second, they also work to: tame other drivers of income inequality by increasing access to quality education, health and housing services; narrow wage gaps; strengthen tax administration capacity; and promote participatory, transparent and accountable budgetary process. As a matter of necessity, African governments must integrate progressive fiscal policies to positively influence income distribution in their national development strategies, including national development plans and annual budgets. To this end, pursuing growth with equity should become a primary objective of African governments. As a matter of policy, fiscal policy should be used to promote growth that is job-rich, skills-enhanced and human capital-driven. Such growth tends to reinforce long-term growth, shared prosperity and social cohesion and creates more fiscal space.

---

## REFERENCES

- AfDB (African Development Bank)**. 2011. Poverty and Inequality in Tunisia, Morocco and Mauritania. Economic Brief. [www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/North%20Africa%20Poverty%20Anglais%20ook\\_North%20Africa%20Quarterly%20Analytical.pdf](http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/North%20Africa%20Poverty%20Anglais%20ook_North%20Africa%20Quarterly%20Analytical.pdf)
- AfDB (African Development Bank), UNECA (United Nations Economic Commission for Africa), AU (African Union) and UNDP (United Nations Development Programme)**. 2011. Assessing Progress in Africa toward the Millennium Development Goals: MDG Report 2011. Addis Ababa.
- Aldana, A.M. and S. El Fassi**. 2016. Tackling regional inequalities in Tunisia. European Centre for Development Policy Management Briefing Note No. 84. April 2016.
- Atkinson, A., T. Piketty and E. Saez**. 2011. Top incomes in the long-run of history. *Journal of Economic Literature* 49(1), 3–71.
- Bagaka, O**. 2008. Fiscal Decentralisation in Kenya: The constituency development fund and the growth of government. Paper prepared for presentation at the 20th Annual Conference of the Association for Budgeting and Financial Management, 23-25 October 2008, Chicago.
- Barro, R**. 2000. Inequality and growth in a panel of countries. *Journal of Economic Growth* 5, 5-32.
- \_\_\_\_\_. 2008. Inequality and growth revisited. *Asian Development Bank Working Paper* No. 11.
- Becker, G. S. and K.M. Murphy**. 2007. The Upside of Income Inequality. *American* Vol 1, Issue 4, May/June 2007.
- Beegle, K., L. Christiaensen, A. Dabalen and I. Gaddis**. 2016. Poverty in a Rising Africa. Washington, D.C., The World Bank Group.
- Benhabib, J., A. Bisin and S. Zhu**. 2011. The Distribution of Wealth and Fiscal Policy in Economies with Finitely Lived Agents. *Econometrica*, Econometric Society, 79(1), 123-157.
- Bertola, G**. 2010. Inequality, integration, and policy: issues and evidence from EMU. *Journal of Economic Inequality* 8, 345-365.
- Bhatti, A. A., H.A. Naqvi and Z. Batool**. 2012. Fiscal Policy and its Role in Reducing Income Inequality: A CGE Analysis for Pakistan. <http://pide.org.pk/psde/pdf/AGM30/papers/Fiscal%20Policy%20and%20its%20Role%20in%20Reducing%20Income%20Inequality.pdf>
- Boonperm, J., J.H. Haughton and S.R. Khandker**. 2009. Does the Village Fund Matter? *Policy Research Working Paper Series* 5011. Washington DC., World Bank
- Bouvet, F**. 2010. EMU and the dynamics of regional per capita income inequality in Europe. *The Journal of Economic Inequality* 8(3), 323-344.
- Cevik, S. and C. Correa-Caro**. 2015. Growing (un)equal: fiscal policy and income inequality in China and BRIC+. *IMF Working Paper* WP/15/68.
- Cornia, G.A**. 2015. Income Inequality Levels, Trends and Determinants in sub-Saharan Africa: an overview of the main changes. A technical report on the UNDP's Project on Inequality in SSA, 28 February 2015.
- Conard, E**. 2016. *The Upside of Inequality: How Good Intentions Undermine the Middle Class*. New York, Penguin Group.
- De Freitas, J**. 2012. Inequality, the politics of redistribution and the tax mix. *Public Choice* 151(3), 611–630.
- Duclos, J. and A. Verdier-Chouchane**. 2011. Growth, Poverty and Inequality in Mauritius and South Africa. *ADB Africa Economic Brief*, Vol. 2, Issue 3.
- Easterly, W**. 2007. Inequality does cause underdevelopment: Insights from a new instrument. *Journal of Development Economics* 84, 755–776.
- Feld, L.P. and J. Schnellenbach**. 2014. Political institutions and income (re)distribution: evidence from developed economies. *Public Choice* 159(3-4), 435-455.
- Foreign Investment Advisory Service (FIAS)**. 2006. Sector Study of the Effective Tax Burden: Lesotho. A joint service of the International Finance Corporation and World Bank. Washington D.C., IFC and World Bank.
- International Labour Organisation (ILO)**. 2008. World of Work Report 2008: Inequalities in the age of financial globalisation. Geneva: ILO.
- IMF (International Monetary Fund)**. 2011. World Economic Outlook. Washington D.C., IMF.
- \_\_\_\_\_. 2014. Fiscal policy and income inequality. *IMF Policy Paper*, January 23.
- \_\_\_\_\_. 2016. Debt Relief under the Heavily Indebted Poor Countries (HIPC) Initiative. Factsheet. 20 September 2016.
- International Budget Partnership**. 2012. Open Budget Survey 2012. Open Budget Transforms Lives. International Budget Partnership. <http://internationalbudget.org/wp-content/uploads/OBI2012-Report-English.pdf>
- Joumard, I., M. Pisu and D. Bloch**. 2012. Less Income Inequality and More Growth – Are They Compatible? Part 3. Income Redistribution via Taxes and Transfers across OECD Countries. *OECD Economics Department Working Papers*, No. 926. OECD Publishing.
- Lipton, D**. 2013. Fiscal Policy and Income Inequality. Speech delivered at the Peterson Institute for International Economics, 13 March 2013. [www.imf.org/en/News/Articles/2015/09/28/04/53/sp031314](http://www.imf.org/en/News/Articles/2015/09/28/04/53/sp031314)
- Marreo, G.A. and J.G. Rodríguez**. 2013. Inequality of opportunity and growth. *Journal of Development Economics* 104, 107-122.
- McCall, L. and C. Percheski**. 2010. Income inequality: new trends and research directions. *Annual Review of Sociology*, Vol. 36: 329-347.
- OECD**. 2008. Growing Unequal? Income Distribution and Poverty in OECD Countries. Paris, OECD.

- Oduola, A.** 2006. Tax Policy Reform in Nigeria. UNU-WIDER Research Paper No. 2006/03. January 2006.
- \_\_\_\_\_. 2017. Fiscal Space, Poverty and Inequality in Africa. *African Development Review* 29(S1), 1-14.
- Oxfam.** 2016. An Economy for the 1%: How privilege and power in the economy drive extreme inequality and how this can be stopped. 210 Oxfam Briefing Paper, 18 January 2016.
- Piketty, T.** 2014. *Capital in the Twenty-First Century*. Cambridge, The Belknap Press of Harvard University Press.
- \_\_\_\_\_. 2015. Putting distribution back at the center of economics: reflections on capital in the twenty-first century. *Journal of Economic Perspectives* 29(1), 67-88.
- Piketty, T. and E. Saez.** 2006. The evolution of top incomes: a historical and international perspective. NBER Working Paper No. 11955, January 2006.
- Ramos, X. and O. Roca-Sagalés.** 2008. Long-term effects of fiscal policy on the size and distribution of the pie in the UK. *Fiscal Studies* 29(3), 387-411.
- Reid-Henry, S.** 2015. *The Political Origins of Inequality – Why a More Equal World is Better for Us All*. Chicago, University of Chicago.
- Robalino, D.A. and P.G. Warr.** 2006. Poverty Reduction through Fiscal Restructuring: An Application to Thailand, *Journal of the Asia Pacific Economy* 11(3), 249-267.
- Salotti, S. and C. Trencroci.** 2015. Can fiscal policy mitigate income inequality and poverty [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2379441](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2379441)
- Solt, F.** 2009. Standardizing the World Income Inequality Database. *Social Science Quarterly* 90, 231-242.
- Stiglitz, J.E.** 2012. Market Failures in the Financial System. New Vision. [www.newvision.co.ug/news/633096-market-failures-in-the-financial-system.html](http://www.newvision.co.ug/news/633096-market-failures-in-the-financial-system.html)
- \_\_\_\_\_. 2015. *The Great Divide – Unequal Societies and What We Can Do About Them*. New York, W.W. Norton and Company.
- Tanzi, V.** 2000. Os determinantes fundamentais da desigualdade, pobreza e crescimento. In *Distribuicao de riqueza e crescimento economico*, Estudo NEAD 2, Brazilia.
- Trablesi, S.** 2013. Regional Inequality of Education in Tunisia: An Evaluation by the Gini Index, *Region et Development* 37.
- United Nations.** 2015. Transforming Our World: The 2030 Agenda for Sustainable Development. New York.
- UNCTAD (United Nations Conference on Trade and Development).** 2012. *The Role of Fiscal Policy in Income Distribution*. Trade and Development Report 2012. Geneva.
- UNDP.** 2009. *Fiscal Space: Policy Options for Financing Human Development*. ed. by Rathin Roy and Antoine Heuty. New York.
- \_\_\_\_\_. 2013. *Humanity Divided: Confronting inequality in developing countries*. New York.
- \_\_\_\_\_. 2016. *Africa Human Development Report 2016: Accelerating Gender Equality and Women's Empowerment in Africa*. New York.
- UNECA (United Nations Economic Commission for Africa), AU (African Union), African Development Bank (AfDB) and UNDP (United Nations Development Programme).** 2014. *Assessing progress in Africa toward the Millennium: Development Goals Analysis of the Common African Position on the post-2015 Development Agenda*.
- Verme, P., B. Milanovic, S. Al-Shawarby, S. El Tawila, M. Gadallah and E.A. El-Majeed.** 2014. Inside Inequality in the Arab Republic of Egypt. *Facts and Perceptions across People, Time, and Space*. Washington, D.C., The World Bank.
- Wang, C., G. Wan and D. Yang.** 2014. Income inequality in the People's Republic of China: Trends, Determinants and Proposed Remedies. *Journal of Economic Surveys* 28(4), 686-708.
- World Bank.** 2015. Kenya Devolution: Working paper – Summary Overview, February 2015. [www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/08/07/092224b082c25763/1\\_0/Rendered/PDF/Kenya000Enhanc0t000Summary0overview.pdf](http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/08/07/092224b082c25763/1_0/Rendered/PDF/Kenya000Enhanc0t000Summary0overview.pdf)
- \_\_\_\_\_. 2016. World Development Indicators. <http://data.worldbank.org/indicator/SI.DST.05TH.20> (Accessed in October 2016).
- Yao, G.A.** 2007. Fiscal Decentralisation and Poverty Reduction Outcomes: Theory and Evidence. Dissertation, Georgia State University. [http://scholarworks.gsu.edu/econ\\_diss/26](http://scholarworks.gsu.edu/econ_diss/26)
- Younger, S.D., F. Myamba and K. Mdadila.** 2016. Fiscal incidence in Tanzania. *Africa Development Review* 28(3), 264-276.