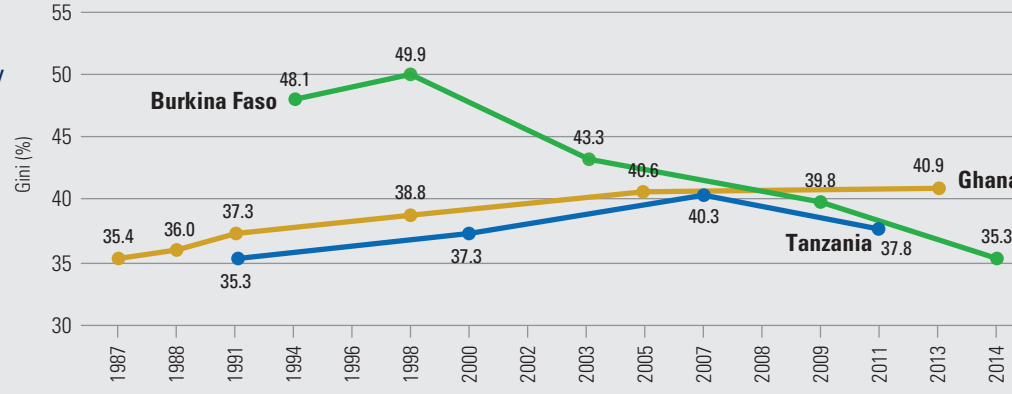
Country context matters in promoting equity: Drivers of inequality are heterogeneous in Burkina Faso, Ghana and Tanzania

Burkina Faso reduced inequality between 1998-2014.

Inequality has been rising in Ghana since 1987.



Drivers of inequality in the three countries

1. **Low job-creating capacity** of growth and low worker productivity
2. **Regressive fiscal policies** that place a greater tax burden on the poor quintiles
3. **Gender inequalities**, **high demographic pressures** (e.g. high fertility rates), **educational disparities** and **low skill gaps**
4. **Wage disparities** within and across sectors
5. **Low agricultural productivity**
6. **Unequal access** to health, education and related services
7. **Low coverage and funding** of social protection
8. **Rising inflation** rates

Emerging lessons from the three countries

1. Promote **quality** and **inclusive growth** – job-rich growth
2. Boost **agricultural productivity**
3. Add **value to primary commodities**
4. Address **regional disparities** in **distribution of infrastructural facilities**
5. Promote **equal access to education and health services**
6. Adopt and implement **comprehensive strategies to address gender-based inequalities**
7. Institutionalise **progressive fiscal system** and **scaling up well-targeted social protection**
8. Increase the **productivity of remittances and ODA**
9. Protect **assets of the poor** from being debased by inflation

14 Drivers of Income Inequality in Burkina Faso, Ghana and the United Republic of Tanzania: A comparative analysis

AYODELE ODUSOLA, RADHIKA LAL, ROGERS DHLIWAYO, ISIYAKA SABO AND JAMES NEUHAUS

14.1 Introduction

The levels and dimensions of income inequality in Africa are heterogeneous, with varying degrees of intensity, diversity and drivers. Since 1990, income inequality trends in the continent have been multi-dimensional, exhibiting a rising, a falling, a U-shaped, or an inverted U-shaped (∩) trends.[1] These variations emphasise the importance of achieving a deeper understanding of each of these trends in Africa towards identifying key drivers and to offer policy recommendations for the countries associated with each trend. Focusing on specific drivers of progress on income inequality allows for a clear understanding of why some countries make significant progress while others lag behind. This focus also makes it possible to draw policy lessons regarding human and institutional factors that define successes and failures in African countries.

Drivers of inequality are neither homogeneous nor universal. They may include: unfair distribution of land; unfair tax systems; unjust distribution of public investments and expenditures; unequal access to capital and markets; unchecked globalisation and structural transformation; discriminatory access to information, technology, education and health services; exclusion from public and societal decision-making processes; discriminatory gender practices; biased urbanisation policies; uninterrupted colonial legacy; untamed corruption and patrimonialism; and weak macroeconomic management, resulting in inflation and unemployment.[2] Root causes are rarely the same across countries. And even when they are the same, their context and structure – process, policy and political dynamics – differ. In some countries, root causes are not apparent; in others they are obvious. Unpacking the context and structure of inequality in Africa calls for a deeper understanding of what drives income disparities and exclusions at the country level.

Comparing and analysing the experience of countries across inequality categories offers opportunities to capture peculiarities and contexts pertaining to these groups. For this purpose,

[1] See Cornia and Martorano (2016) and Chapter 2 of this book for a detailed analysis and list of countries in the different categories of trends in SSA countries. This chapter examines three of these four categories: a rising, a falling and an inverted U-shaped trends.

[2] See, for instance, Matotay (2014), Molini and Paci (2015), and Aryeetey and Baah-Boateng (2016).

one sub-Saharan country has been selected from each of three inequality categories: rising inequality (Ghana); falling inequality (Burkina Faso); and inverted U-shaped (∩) inequality (United Republic of Tanzania).[3] In spite of these diverging trends, income inequality in these three countries is still lower than the SSA 2013 average of 43.8 (World Bank, 2016). The premise here is that an in-depth analysis of income inequality through qualitative and quantitative approaches provides a vivid context of the drivers and determinants of income inequality pertaining to the category each country represents. This analysis also helps to draw lessons that explain why countries such as Burkina Faso and Tanzania succeeded in reducing income inequality more quickly than poverty and why the opposite is true in a country like Ghana.

The objective of this chapter is to compare country performance, understand which factors drive progress in countries exhibiting falling inequality and determine the factors that impede success in countries where income inequality is rising. Accordingly, the chapter is divided into four parts. Section 14.2, which follows the introduction, provides an overview and the spatial dimensions of income inequality in Burkina Faso, Ghana and Tanzania. Section 14.3 focuses on a comparative analysis of drivers of inequality in the three countries. The final section draws relevant lessons and policy conclusions for implementing pro-equality programmes in Africa.

14.2 Overview and spatial dimensions of inequalities in Burkina Faso, Ghana and the United Republic of Tanzania

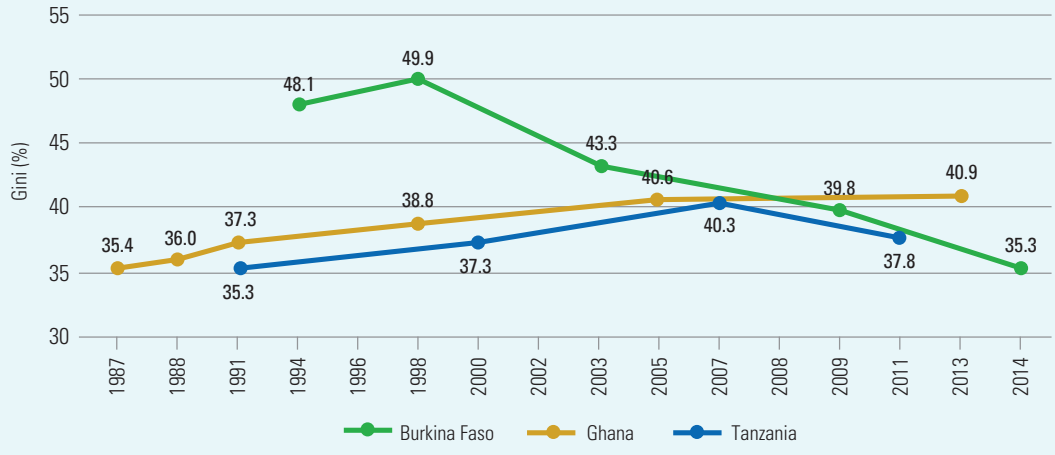
Although the three countries have reduced poverty considerably, relative to other SSA countries, only Ghana was able to meet the MDG target of halving poverty by 2015 (based on the international poverty line of US$1.90 per day). Ghana was able to reduce its national poverty line by 57.2 per cent between 1992 and 2012, three years ahead of the deadline. This was followed by Burkina Faso (47.4 per cent, 1994-2014) and Tanzania (33.8 per cent, 1991-2011). By SSA standards, the three countries performed well in reducing poverty. How did they perform on income inequality?

Burkina Faso remains one of the very few African countries that succeeded in reducing income inequality for approximately two consecutive decades. After rising from 48.07 in 1994 to 49.94 in 1998, the Gini coefficient fell to 35.30 in 2014 (in percentage terms). By contrast, in Ghana, the Gini coefficient rose consistently from 35.35 in 1987 to 42.3 in 2013. Tanzania, on the other hand, exhibited an ∩ income inequality trend; after rising from 35.29 in 1991 to 40.28 in 2007, income inequality fell to 37.78 in 2011 (figure 14.1).

The aggregate Gini tends to mask information on how various income groups perform on income distribution across the three countries. Table 14.1 presents the income share across the income group countries. In these three countries, the income share of the lowest 10.0 per cent of the population is less than 5.0 per cent of the national income. Nevertheless, the income share declined in Ghana significantly between 1987 and 2005, falling by 32.6 per cent. However, this distribution masks some encouraging changes within the income groups. According to Cooke, Hague and McKay (2016:16), in Ghana, the lowest income groups within the poorest 10 percentile and wealthiest 10 percentile are slowly catching up with the highest income earners in their respective group. In contrast, the proportion of income share of this group rose in Burkina Faso and Tanzania. A similar trend is observed for the income share of the bottom 20.0 per cent of the population.

[3] The U-shaped inequality trend was not selected because it shares some attributes with each of the three cases selected.

FIGURE 14.1 Overall Gini for Burkina Faso, Ghana and Tanzania



Source: Computed by authors from the World Development Indicators database (accessed January 2017).

On the other end of the income group spectrum, the share of the highest 20.0 per cent of the population is disproportionately high. In Burkina Faso, the share of national income fell by 10.69 percentage points, from 55.01 in 1994 to 44.32 in 2014. Inequality worsened in Ghana (1987-2005) and Tanzania (1991-2011), as the income share of this group rose by 5.91 and 2.87 per cent, respectively. This trend is also observed for the share of the highest 10.0 per cent of the population (table 14.1). In Ghana, evidence from the World Bank (2016), UNICEF (n.d.) and Danquah and Ohemeng (forthcoming) reveals that between 2005-2006 and 2012-2013, while the average consumption of the poorest 10 per cent in rural areas increased by 19.0 per cent, that of the wealthiest 10 per cent increased by 27.0 per cent.[4] The growth of non-farming activities could be linked to the increase in rural consumption.

TABLE 14.1 Income shares among the various income groups in Burkina Faso, Ghana and Tanzania

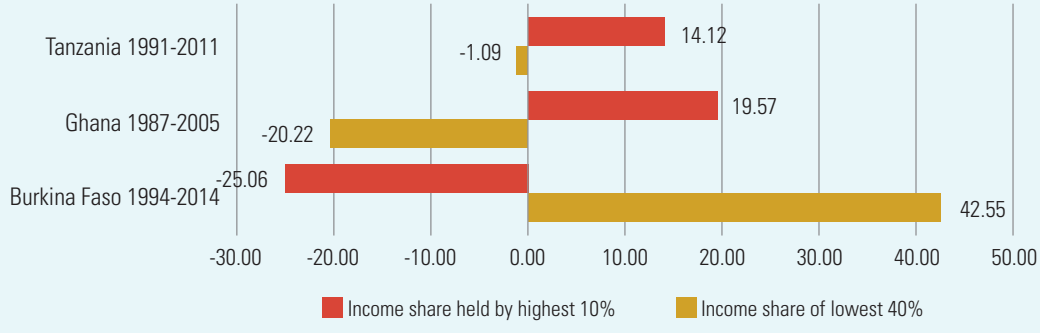
	Burkina Faso		Ghana		Tanzania	
Income group	**1994**	**2014**	**1987**	**2005**	**1991**	**2011**
Income share held by the lowest 10%	2.25	3.6	2.82	1.9	2.7	3.09
Income share held by the lowest 20%	5.53	8.31	6.97	5.24	7.02	7.37
Income share held by the second 20%	8.67	11.69	11.72	9.89	12	11.14
Income share held by the third 20%	12.04	15.05	16.3	14.63	15.95	14.95
Income share held by the fourth 20%	18.77	20.64	22.34	21.65	22.07	20.72
Income share held by the highest 20%	55.01	44.32	42.67	48.58	42.96	45.83
Income share held by the highest 10%	39.47	29.6	27.34	32.69	27.12	30.95

Source: Computed by authors from the World Development Indicators database (accessed January 2017).

[4] The wealthiest 10 per cent of Ghana's population were responsible for one-third of national consumption, compared to just 1.72 per cent by the poorest decile.

One of the targets of the Sustainable Development Goals (SDGs) is that by 2030, each country must achieve and sustain income share growth for the bottom 40 per cent of the population at a rate higher than that of the national average. Burkina Faso is a very good example of a country working towards achieving this target. The income share of the bottom 40.0 per cent rose by 42.55 per cent and that of the top 10.0 per cent fell by 25.06 per cent between 1994 and 2014 (figure 14.2). The income of the bottom 40 per cent as a share of that of the top 10.0 per cent of the population is also highest in Burkina Faso (33.78 per cent), followed by Tanzania (29.90 per cent) and Ghana (23.14 per cent).

FIGURE 14.2 Change in income shares of the highest 10% and lowest 40%



Source: Computed by authors from the World Development Indicators database (accessed January 2017).

14.2.1 Spatial dimensions of income disparities

The dichotomy between rural and urban economies drives disparity (Cornia, 2015); a wide urban-rural gap in access to education, health and housing services exacerbates inequalities in income and opportunities. This gap also leads to low intergenerational mobility (Lipton, 2013). In 2015, Burkina Faso's and Tanzania's economies were predominantly rural (77.3 per cent and 70.1 per cent, respectively), compared to Ghana's (50.1 per cent).[5]

Despite the rural nature of their economies, the distribution of social services and facilities is skewed against the rural population. In Burkina Faso, for instance, 97.0 per cent of the urban population had access to safe drinking water, compared to 75.0 per cent for the rural population. In 2012, 46.0 per cent of the urban population and 2.0 per cent of rural citizens had access to electricity, respectively (ECA et al., 2012 and MNCE, 2010). This disparity is even more pronounced in Tanzania, where 85.0 per cent (urban) and 43.0 per cent (rural) households had access to an improved water supply, while 43.0 per cent and 1.3 per cent, respectively, had access to electricity (NBS, 2012a). In addition, Tanzanian urban schools are four times more likely to have electricity, water and sanitation than rural schools since health spending per capita is more concentrated in urban than in rural areas (World Bank, 2013). A similar trend is observed in Ghana, where 62.3 per cent of urban households and 17.1 per cent of rural households had access to piped water, and 88.6 per cent of urban and 48.3 per cent of rural population were connected to the electricity grid (GSS, 2014). The skewness in the distribution of other socioeconomic factors, such as health, sanitation and education facilities, and productive

[5] For Ghana and Tanzania, see UNSD database: http://data.un.org/Data.aspx?q=rural+population&d=POP&f=tableCode%3a1.

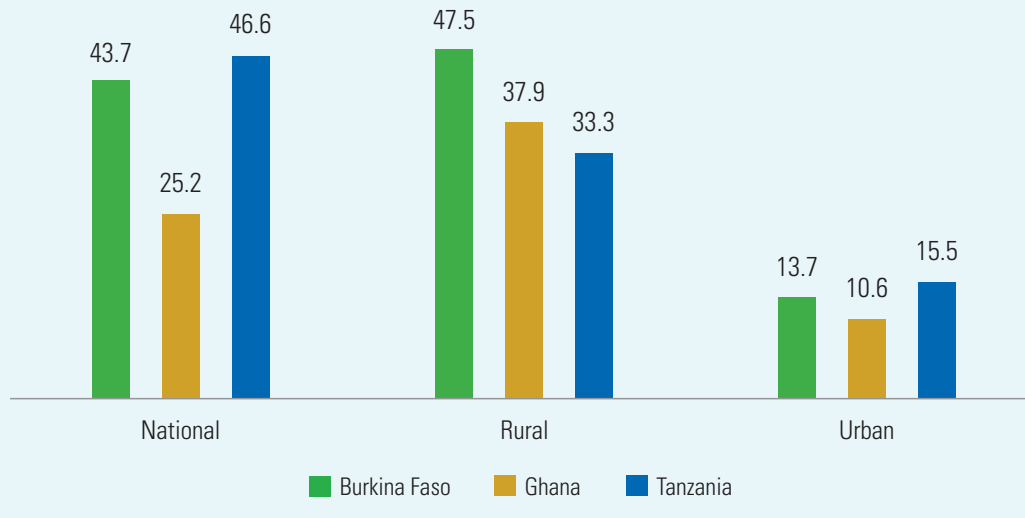
infrastructure, is the same. This largely accounts for the fact that rural poverty is disproportionately higher than urban poverty in these countries (figure 14.3).

As a response to this unequal distribution of health facilities (infrastructure and staff) in Burkina Faso, the Government developed a National Health Development Plan (2011-2020). The implementation of this plan will contribute significantly to addressing the imbalance in the distribution of health facilities in rural areas. Ghana and Tanzania could replicate these plans to ensure that rural populations have unhindered access to health facilities and access to improved water infrastructure.

Despite these disparities in the distribution of facilities, income inequality in Burkina Faso and Tanzania is still skewed against urban centres. In 2014, in Burkina Faso, the Gini coefficient was 27.3 (rural) and 39.4 (urban); in 2012, for Tanzania, it was 29.9 (rural), 36.04 (Dar es Salaam) and 40.12 (other urban centres). The predominance of agriculture in rural areas, with minimal income disparities, could be a major factor for lower inequality compared to urban centres, with high disparities in economic opportunities and dispersed wage structures across professions and sectors, particularly non-agricultural sectors. Income distribution is skewed against rural areas in Ghana. For instance, in 1991-1992, the Gini index for Ghana's rural population was 0.329 compared to 0.321 for urban populations. By 2012-2013, the Gini index had increased to 0.40 for rural areas and 0.388 for urban areas, indicating a greater increase in rural areas.

The decomposition of within-region inequality is also revealing. The wealthiest rural households experienced much higher levels of growth than less-wealthy rural households. In urban areas, the very poorest population experienced the highest levels of consumption growth – higher than wealthier

FIGURE 14.3 National, rural and urban poverty in Burkina Faso, Ghana and Tanzania ($1.90, %)



Source: Computed by authors from the World Development Indicators database (accessed January 2017).
Notes: The poverty headcount ratio at US$1.90 a day (2011 PPP) percentage of population is different from the poverty headcount ratio at national poverty lines (percentage of population), which was estimated to be 40.1 per cent (Burkina Faso), 24.2 per cent (Ghana) and 28.2 per cent (Tanzania). The latest available data is 2011 (Tanzania), 2012 (Ghana) and 2014 (Burkina Faso).

households and higher than rural ones living in the same poorest percentile. In Ghana, urban poverty fell faster than rural poverty as the gap between urban and rural areas grew during the period. In 2013, rural poverty was estimated to be as much as 3.6 times higher than urban poverty, compared to 2.3 times in 1992 (Cooke, Hague and McKay, 2016). Table 14.2 provides more information for the three countries.

In Burkina Faso, inequalities vary by region, with the Eastern region as the most unequal and the Sahel, the least unequal. The favourable climatic conditions of this Eastern region provided opportunities for many agricultural crops and non-agricultural activities, accounting for heterogeneous income sources and income gaps. A decomposition of sources of income inequality in Burkina Faso reveals that agriculture is more equalising than non-agricultural activities. Non-agricultural activities accounted for 33.97 per cent of income inequalities, followed by cereal cultivation (25.24 per cent) and cash crops (19.86 per cent) (Ouedraogo and Ouedraogo, 2015).

Several key factors have been cited as reasons for spatial inequality in Tanzania, including: unfair distribution of national resources across the regions; joblessness; poor development of the private sector; corruption and state capture by the elites (politicians, public servants and powerful business actors);[6] unequal access to social services (e.g. education, health and sanitation); disparity in access to land; gender disparity in economic and social opportunities; and colonial heritage (e.g. Matotay, 2014).

TABLE 14.2 Recent inequality trends in Burkina Faso, Ghana and Tanzania (Gini coefficients)

	National	Rural	Urban	
Burkina Faso				
1998	49.9	37.1	51.7	
2003	43.3	39.9	49.1	
2009	39.8	33.0	45.8	
2014	35.3	27.3	39.4	
Ghana				
1991	37.3	32.9	32.1	
1998	38.8	-	-	
2006	40.6	37.8	38.2	
2013	40.9	40	38.8	
Tanzania	**Rural**	**Other urban**		**Dar es Salaam**
1991	35.3	-	-	-
2001	37.3	37.23	38.80	39.77
2007	40.3	35.54	39.96	38.14
2012	37.8	29.86	40.12	36.04

Sources: For Ghana, estimates for national Gini are from Cooke, Hague and McKay (2016) and for urban and rural Gini from Danquah et al. forthcoming)
Note: For comparability, national figures are sourced from the World Development Indicators, while rural and urban data are sourced from national sources.

[6] According to Matotay (2014), private businesses accounted for 25.0 per cent of all tax exemptions between 2011 and 2012. Major and powerful companies were not listed as top performers on tax payments.

In Ghana, there are marked disparities between the well-endowed South and the less-endowed North, with the North becoming more unequal than the South (Cooke, Hague and McKay, 2016; Osei-Assibey, 2014). The highest level of inequality is observed in the Upper West. This region has also shown the largest increase since 1992, rising from 0.326 in 1992 to 0.477 in 2013. As evident in Cooke, Hague and McKay (2016), the Central, Greater Accra, Ashanti and Upper East regions recorded declines in income inequalities between 2006 and 2013. However, inequality rose in the Northern and the Upper West regions during the period. The rising level of urbanisation and the structural shift from agriculture to the rapidly changing services sector drives inequality in Ghana, whereas unequal access to infrastructure accounts for widening inequality between the North and the South (World Bank, 2009; Osei-Assibey, 2014). As further argued by Aryeetey, Owusu and Mensah (2009) and Annim, Mariwah and Sebu (2012), the colonial legacy of disproportionately investing in export-producing regions, including physical and social infrastructure, continued under successive regimes, thus driving inequalities between Ghana's southern and northern regions.

14.3 Drivers of inequality in Burkina Faso, Ghana and Tanzania: A bivariate analysis

This section uses both correlation analysis and a qualitative approach to establish the factors that explain inequality dynamics in the three countries. Using this analytic approach, it is evident that the factors affecting income disparity in the continent are heterogeneous.

14.3.1 The growth-poverty-inequality nexus is critical to an accelerated reduction in inequality

The literature is replete with examples of the role of the growth-poverty-inequality nexus in designing policies to reduce income inequalities (Fosu, 2008; Christiaensen, Chuhan-Pole and Sanoh, 2013; and Bhorat, Naidoo and Pillay, 2016). For instance, Fosu (2008) finds the impact of growth on poverty to be a decreasing function of inequality and a poverty-growth elasticity range of 0.02-0.68 across the sample of African countries. Similarly, Christiaensen, Chuhan-Pole and Sanoh (2013) find that high initial inequality and increasing resource dependence suggest a lower conversion rate of growth to poverty reduction in Africa. What is the status of this nexus in these three countries?

Growth dynamics in Burkina Faso over the past two decades are characterised by overall positive growth of more than 6.0 per cent. However, the trends are erratic and volatile, due mainly to unstable agricultural production and the vulnerability of the economy to external shocks. Over the same period, poverty, which declined from 83.1 in 1994 to 43.7 per cent in 2014, remained endemic and concentrated in rural areas, where more than 90.0 per cent of national poverty has been concentrated since 1994. Three factors explain the low poverty-reducing power of growth in Burkina Faso: growth based on sectors with low job-creating capacity; low per-worker productivity in the primary sector; and population increases of more than 3.0 per year. This dynamic notwithstanding, Burkina Faso is still the most inclusive in its growth process, with growth elasticity of poverty[7] and growth elasticity of inequality consistently negative between 1994 and 2014 (table 14.3).

[7] The basic method of generating the growth elasticity of poverty is $((\Delta P_t/P_{ot-1})/ (\Delta GDP_t/GDP_{t-1}))$ (Grimm and Günther, 2005).

In Tanzania, GDP grew by an average of 7.0 per year from 2000 to 2012. This high growth also translated to an appreciable decline in poverty of 45.0 per cent. Poverty fell from 84.7 per cent in 2000 to 46.6 per cent in 2011, translating to an annual decline of 3.75 per cent during the period. This decline is substantial relative to SSA performance. The poverty-reducing power of growth has become pronounced since 2007, while the inequality-reducing power of growth was highest in 2011. Growth has been more inclusive since 2011, with negative growth elasticities of poverty and inequality. The inequality elasticity of poverty in both Burkina Faso and Tanzania is positive (table 14.3), indicating that high inequalities in these countries are constraining accelerated poverty reduction.

The growth-poverty-inequality nexus in Ghana is a puzzle. In recent years, Ghana's growth rate has been significantly higher than the SSA average.[8] This rapid growth also translated into notable poverty reduction; the poverty rate fell by 57.2 per cent between 1991 and 2012.[9] It is therefore not surprising that Ghana had the highest growth elasticity of poverty (-1.36) among the three countries (table 14.3), although this elasticity had been falling, which makes the rise in inequality over the period worrying. The Gini coefficient rose by 1.63 percentage points between 1991 and 1998, and by 2.70 percentage points between 1998 and 2005. There was a shift out of agriculture (the equalising sector) and a significant expansion of the service sector (the unequalising sector), which by 2014 constituted more than 50.0 per cent of GDP, whereas the share of agriculture had fallen to about 23.0 per cent (Molini and Paci, 2015; and Cooke, Hague and McKay, 2016). The positive growth elasticity of inequality indicates that Ghana's growth (table 14.3) was not inclusive between 1998 and 2005. The most intriguing result is the negative inequality elasticity of poverty, indicating that rising inequality in Ghana is poverty reducing. The ensuing structural transformation in Ghana is a key driver of this trend.

14.3.2 Fiscal policies play an important role in influencing national spatial inequities

Fiscal policy is one of the major factors explaining the dynamics of income inequality in Africa (Odusola, 2015). Revenue as a share of GDP explains at least 13.0 per cent of the changes in income inequality in Africa (Odusola, 2017). The relationship between fiscal policies and the Gini coefficient suggests some elements of tax regressivity (Odusola, forthcoming). Odusola observes that all countries with a revenue-to-GDP ratio of 20 per cent and above (except Algeria, Morocco and Seychelles) have Gini coefficients greater than 0.5. The fact that Algeria, Morocco and Seychelles are not resource-rich countries, and do not depend heavily on primary commodities for their exports and revenues, suggests that a dominant extractive sector could weaken the effectiveness of fiscal distribution on the continent. Bolstering revenues from non-extractive industries through reducing government dependence on revenues from extractive sectors could help reverse this positive linkage. It is also important to improve progressive taxation in countries with considerable fiscal space and high income inequality. (See Chapter 7 of this book for additional roles and impacts of fiscal policies on inequality in Africa.)

Using a correlation approach, a cursory analysis of the impact of fiscal distributional effectiveness[10] shows a high correlation index between fiscal distribution effectiveness and Gini coefficient for these

[8] In fact, Ghana achieved lower middle-income country status (LMIC) in 2010, following significant growth, the rebasing of its GDP in 2010 and the discovery of oil in commercial quantities around the same time.

[9] As pointed out in Cooke, Hague and McKay (2016), poverty fell consistently from 56.5 per cent in 1991-1992 to 43.9 per cent, 31.9 per cent and 24.2 per cent in 1998, 2005 and 2012-2013 respectively. The incidence of extreme poverty also fell appreciably from 33.2 per cent in 1991/92 to 8.4 per cent in 2012/13.

[10] Fiscal distributional effectiveness is measured as the difference between the market and net Ginis.

TABLE 14.3 Growth-poverty-inequality nexus in Burkina Faso, Ghana and Tanzania

	Growth elasticity of poverty	Inequality elasticity of poverty	Growth elasticity of inequality
Burkina Faso			
1998	-0.036	-0.449	0.081
2003	-0.647	2.227	-0.290
2009	-0.035	0.426	-0.082
2014	-0.415	1.864	-0.222
Average 1998-2014	-0.283	1.017	-0.128
Ghana			
1998	-2.130	-6.734	0.316
2005	-0.589	-3.797	0.155
Average 1998-2005	-1.359	-5.266	0.236
Tanzania			
2000	0.193	3.570	0.054
2007	-0.340	-4.728	0.072
2011	-0.202	1.873	-0.108
Average 2000-2011	-0.116	0.238	0.006

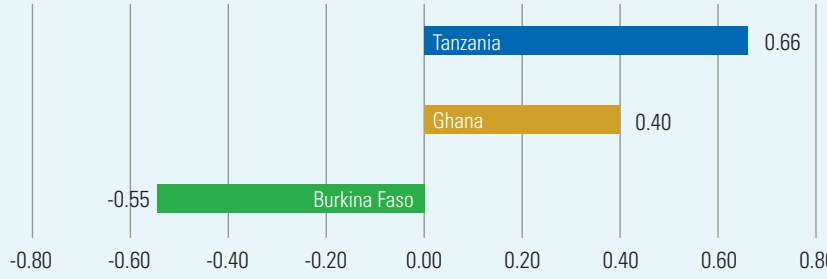
Sources: Authors' computations from World Development Indicators data.

three countries. As evident in figure 14.5, Burkina Faso's fiscal policy is very progressive. This explains, to a large extent, why the country has a lower (and declining) Gini than Ghana and Tanzania, where fiscal policies are considered regressive. A positive correlation index of 0.40 for Ghana and 0.66 for Tanzania suggests that significant efforts are required to enhance fiscal policy effectiveness if it is to be inequality-reducing. In Ghana, evidence from Younger, Osei-Assibey and Oppong (2015) shows that social expenditures and taxes have little effect in redistributing income and reduce poverty. Although Pay As You Earn (PAYE) is progressive, indirect taxes do not change inequality but do increase poverty. Education expenditure is at lower levels and electricity subsidies are regressive while cash and quasi-cash transfers, such as school feeding programmes and Livelihood Empowerment against Poverty (LEAP), are highly progressive. An emerging lesson here is the need to ensure effective targeting of government expenditures and taxes to reduce poverty and inequality simultaneously.

14.3.3 Gender disparities and fertility-related issues intensify income inequalities

Gender inequality remains a major barrier to human development, including access to health and education services and reduction in poverty and income inequality. The Gender Inequality Index (GII) measures gender inequalities in three important aspects of human development: reproductive health; empowerment (parliamentary participation and secondary education); and economic participation. This index highlights gender disparities in the three countries. The higher the GII value, the greater the disparities between women and men and the greater the loss to human development (UNDP, 2015). Burkina Faso's high GII of 0.631 shows that greater equity could be achieved if this disparity were narrowed. Reducing the current GII of Ghana (0.554) and Tanzania (0.547) is also important to accelerate progress in these countries.

FIGURE 14.4 Correlation index of inequality and fiscal distribution in Burkina Faso, Ghana and Tanzania



Source: Author's computation from the World Development Indicators Database (accessed January 2017) and the Standardized World Income Inequality Database Version 5.0.

The current adolescent birth rate (per 100,000 live births) is still very high, especially in Tanzania (122.7 per 1,000 live births) and Burkina Faso (115 per 1,000 live births) compared to Ghana (58 per 1,000 live births).[11] The strong positive correlation index between the Gini coefficient and adolescent birth rates for Burkina Faso (0.709) and Tanzania (0.514) suggests that the adolescent birth rate, which often keeps girls out of school, could slow progress on reducing inequality. High adolescent birth rates could have contributed to the very low percentage of the population with secondary school education, at 5.6 per cent (Tanzania) and 0.9 per cent (Burkina Faso) (see table 5 of the Gender Inequality Index of UNDP, 2015). The correlation index is also high for fertility rates (see Annexes 14.1-3).

Women have experienced a more acute lack of opportunities. In addition to experiencing discrimination in the labour, asset, services and credit markets, most women are engaged in vulnerable employment.[12] In Burkina Faso, vulnerable employment rates for women and men are 93.1 per cent and 86.7 per cent, respectively, compared with 84.3 per cent and 68.9 per cent, respectively, in Ghana, and 79.7 per cent and 68.5 per cent, respectively, in Tanzania (World Bank, n.d.).

Disparities in land distribution appear to be one of the factors driving gender-based inequities. The marginalisation of women in land ownership has become an issue of particular concern in Tanzania. Although the Land Act No. 4 of 1999 establishes equal rights for men and women to access, own, control and dispose of land, land insecurity among female smallholder farmers is very high in several parts of the country (Economic Research and Social Foundation, 2013). In Burkina Faso, as well, despite clear legislation guaranteeing access to land without discrimination, traditional practices remain barriers for women to access land. Female ownership of land has improved somewhat in Ghana as a result of the implementation of the second phase of a Land Administration Project (LAP). This project may explain why poverty incidence is lower, at 19.1 per cent compared with 25.9 per cent for men in 2012-13. However, there is evidence that access to ownership and control of agricultural land is still one of the biggest challenges for female farmers. This also has a negative impact on their access to credit and other resources.

[11] For more information, see http://hdr.undp.org/en/composite/GII

[12] Vulnerable employment includes part-time, seasonal, or low-paid jobs in the informal economy.

14.3.4 Educational disparities and skill gaps impede progress

Education is a double-edged sword. It helps to reduce poverty but also has the potential to raise income disparities if not accompanied by a progressive tax system and effective social protection programmes. Poverty reduction can be addressed through job creation; income disparities can be addressed through skills and better wages. Education not only enhances workers' productivity and economic growth (Romer, 1990; Odusola, 1998), but also increases the economy's innovative capacity and the generation and adaptation of new ideas (Mankiw, Romer and Weil, 1992).

One factor contributing to success in poverty reduction in Ghana is the appreciable progress in education. Education is helping Ghanaians to bridge income disparities. For instance, uneducated men earn 57.0 per cent more than uneducated women, but this figure shrinks to 24.0 among women with primary education and to 16.0 among those with secondary education (UNESCO, 2014b).

In Ghana, the share of the labour force without schooling was almost halved between 1991 and 2012, falling by 41.0 per cent to 24.0 per cent. By 2012, most workers had completed at least junior secondary education, compared to just 39.0 per cent in 1991. Only one in four adolescents of secondary school age were found to actually attend secondary school. One in three youths attend secondary school in Tanzania; only 14.0 per cent of all adults had graduated from secondary school and 2.3 per cent had graduated from university or completed other levels of education (UNDP and GoT, 2015). A higher level of education provides opportunities for better skills, better job opportunities and better pay. In Burkina Faso, poverty is higher among uneducated heads of households and lower among educated household heads. High drop-out rates among secondary school-age children (40 per cent urban and 72 per cent rural) in Burkina Faso has implications for intergenerational poverty. In Tanzania, about 3.0 per cent of the population with higher education earned more than twice the amount earned by the majority of the population that had completed secondary education (NBS, 2012b).

Rising poverty and inequality in many African countries can be linked to crises in the labour market and the educational system. There is a mismatch between educational achievement and labour market realities, contributing to rising unemployment by education category in Burkina Faso and Tanzania (table 14.4). The failure of African training institutions to refocus their activities on the poor – particularly training targeted at increasing beneficiaries' productivity and incomes – has been linked to rising levels of unemployment, poverty and inequality (Bennell, 1999).

TABLE 14.4 Unemployment by educational category in Burkina Faso and Tanzania

Employment category	Burkina Faso			Tanzania		
	1990	1999	% change	2000	2013	% change
Unemployment with primary education	29.0	47.0	62.1	71.6	84.1	17.5
Unemployment with secondary education	2.9	19.7	579.3	7.1	8.0	12.7
Unemployment with tertiary education	3.9	6.1	56.4	-	2.7	-

Sources: Authors' computation from the World Development Indicators (accessed December 2016).

The correlation coefficient of -0.649 for net secondary school enrolment tends to suggest secondary school enrolment is equalising (Annex 14.1). However, this contrasts with the findings from Ouedraogo and Ouedraogo (2015), which show that education is unequalising. The authors found that the Gini of household heads by level of education is 0.391 for non-literate households and 0.424 for literate households. Thus, inequality increases as the level of education of the household head improves. For instance, the Gini for household heads with primary education is 0.416 and 0.535 for those with secondary school and above.

In Ghana, net female secondary school enrolment rates play one of the strongest roles, with a correlation index of -0.47 (Annex 14.2). This suggests that female secondary school enrolment, combined with an increased quality of secondary school education for girls, could help to reduce inequality in Ghana. The progressive lower secondary school completion rate in Ghana could have accounted for this strong correlation with income disparities.

In Tanzania, education does not stand out as a strong predictor of widening inequality based on the correlation index. However, it plays an indirect role by impacting the factors that tend to drive income inequality, such as age-dependency ratio, total fertility rate and access to improved water (Annex 14.3). This minimal predictive capacity could result from the declining quality of education in Tanzania (UNESCO, 2014), but that declining quality could act as a major drag on accelerating poverty reduction. The poor quality of education in the three countries contributes to rising joblessness, growth of vulnerable jobs and increasing informality. Therefore, enhancing the skill content of the educational system and promoting vocational training that helps to enhance productivity and incomes are important to achieving progress.

14.3.5 Wages play a critical role in combating poverty and rising inequality

Real wages in emerging and developing economies have been rising since 2007, contributing to global wage growth (ILO, 2015). Wage increases are a good sign for countries where, in the past, wages have lagged behind productivity growth. Although a rising wage rate has implications for profitability and competitiveness, it helps to raise people above the poverty line and contributes to expanded aggregate demand. To ensure that labour obtains a fair share of the growth process and income distribution, many countries have adopted minimum wages and collective bargaining mechanisms. Efforts to address discriminatory policies and remove labour market impediments have been adopted in many African countries, including mechanisms to ensure equal pay for men and women. In most countries, while low income groups depend on social protection, upper income groups enjoy a myriad of tax exemptions and waivers. Middle-income household groups rely primarily on wages. Governments often focus on social protection for the lowest income groups and tax exemption for top income brackets. Thus, wage policies bring the middle class into the distribution spectrum.

Africa lags behind other continents in wage growth. In 2013, for instance, it grew by less than 1.0 per cent compared to 6.0 per cent in Asia, about 6.0 per cent in Eastern Europe and Central Asia, about 4.0 per cent in the Middle East and 5.9 per cent in emerging G20 countries (ibid.). An ILO report (2015) also links rising inequality in developed countries to wage inequality and job losses. These two factors accounted for 90.0 per cent of the increase in inequality in Spain and 140.0 per cent of the increase in the United States. Changes in the distribution of wages and paid employment also accounted for 8.07 per cent and 72.0 per cent decline in top-bottom income inequality in Argentina and Brazil, respectively (ibid.).

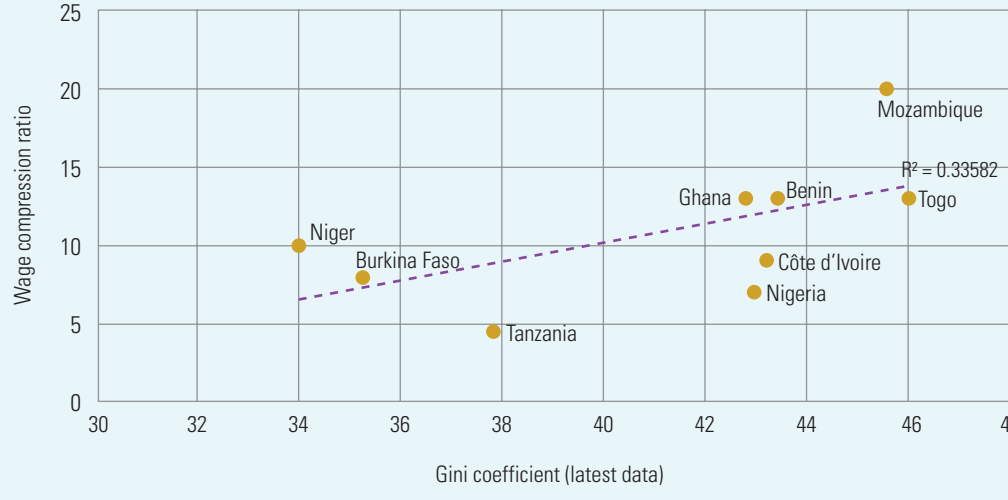
Chapter 7 of this book argues that low wage or pay compression ratios (the ratio of the highest wages/salaries to the lowest wages/salaries) are equality-enhancing. How do these countries fare on the compression ratio?

The positive correlation between the wage compression ratio and income inequality is established in figure 14.5. Countries with a low compression ratio tend to have low income inequality. The figure shows that wage compression alone accounts for 33.6 per cent of the variation in income inequality among the selected countries (including Burkina Faso, Ghana and Tanzania). Countries such as Mozambique and Togo, with very high compression rates, have high Gini coefficients. The three countries with the lowest wage compression ratios have the lowest Gini coefficients. The high Gini in Ghana is therefore not surprising, given its high compression rate. The correlation index between wage compression ratio and Gini coefficient is 0.579, confirming the role of wages in influencing income dynamics in Africa. Aligning wages, productivity and economic reality is key to address income inequality.

14.3.6 Agriculture remains a powerful tool to accelerate reduction in poverty and income inequalities

Chapter 4 examines in detail the role of agriculture in reducing poverty in Africa. Agriculture remains the mainstay of Africa's economy. It accounted for 17.5 per cent of total value added to GDP in Africa and, specifically, more than 50 per cent in Sierra Leone and Chad in 2015. In 2010, Africa's agricultural population was 50.2 per cent of the total population, while 52.4 per cent of the economically active population was engaged in agriculture (Chapter 4 of this book and Odusola, forthcoming). Based on the sector's prominence in the continent's economy, Odusola (ibid.) concludes that the size and dimensions of agricultural activities are bound to have a substantial impact on the aggregate economy, household livelihoods and living conditions.

FIGURE 14.5 Wage compression ratio and income inequality in selected countries



Agricultural productivity plays an outsized role in Burkina Faso as an agrarian economy, where more than 80 per cent of the economically active population is involved in agriculture (Odusola, 2017). The correlation index representing the correlation between yield per hectare and inequality is -0.607 (Annex 14.1), suggesting that increasing agricultural productivity could help to reduce inequality. The share of agricultural raw materials in total merchandise exports also shows an inverse correlation with income inequality, although the correlation index is lower than that of agricultural yield.

In Ghana, agricultural productivity plays an important role in reducing inequality. The cereal yield (kg per hectare) rose from 989.2 kg per hectare in 1990 to 1,703 kg per hectare in 2015, with a distributive impact on the farming community. The cereal yield's correlation coefficient with inequality (-0.41) is relatively strong compared to the other variables in Annex 14.2. To achieve a substantial reduction in inequality, accelerated improvements in agricultural yields, through increasing access to farming inputs such as fertilizers, seedlings and tractors, as well as access to credit, irrigation and post-harvest facilities, could be beneficial.

A bivariate analysis of data from Tanzania shows agricultural productivity to be a potent driver in reducing income inequality, with a correlation index of -0.35. Tanzania is an agrarian economy, with 75 per cent of the economically active population engaged in agriculture, accounting for about one-third of economic outputs. The potency of agricultural productivity might have been higher if the government had sustained the cereal yields of 2,047.4 kg per hectare achieved in 2001, from 1,506.5 kg per hectare in 1995. However, unstable agricultural productivity weakened the ability of this sector to reduce inequality substantially. Policies that promote investment in agricultural productivity, including research and development, and extension services could help accelerate reduction of income inequality in Tanzania.

The slow growth in agriculture in the three countries accounts for a high rate of rural poverty. As evident in Tanzania and Ghana, the export of raw agricultural materials tends to worsen income inequality. This is not surprising because as raw materials are exported, jobs that should be created through local value chains are also exported, thereby adding to income disparity nationally. As indicated in Odusola (forthcoming), agriculture contributes more to poverty and inequality reduction when its growth leads to non-farm expansion. To maximize the benefit of using agriculture to reduce poverty and inequality, strategies to improve agricultural productivity and use agricultural products to transform the manufacturing sector, through local and regional value chains, should be developed.

14.3.7 Addressing unequal access to health and related services is vital to reducing income inequality

Health is wealth. A healthy population is more likely to be productive and creative, thereby earning higher incomes. On the other hand, the higher an individual's income, the better his or her health. Kawachi and Kennedy (1999) document the transmission mechanisms through which health affects income distribution and vice versa.

Burkina Faso has the lowest health expenditure per capita of the three countries. It rose from US$11.58 in 1995 to US$41.19 in 2009, before declining to $35.19 in 2014. It averaged US$37.77 during 2010-2014 with an annual growth rate of 7.6 per cent during 2000-2014. Although the magnitude is small, the consistent rise in health expenditure per capita suggests a dampening effect on income inequality in Burkina Faso, with a correlation index of -0.705. Increasing access to improved water infrastructure also tends to reduce income disparity, partly as a result of lower morbidity, which

translates into higher productivity and higher income. However, the threat posed by an under-5 mortality rate hampers accelerated reduction in income inequality, with a correlation index of 0.694 (see Annex 14.1 for more information). Implementation of the National Health Development Plan (2011-2020) to promote equity in the distribution of health infrastructure and personnel across regions and adoption of the law on universal health insurance could further enhance the inequality-reducing power of health spending.

In Ghana, a rising trend of health expenditure per capita – increasing from US$19.01 in 1995 to US$84.53 in 2013, with an annual growth rate of 10.06 per cent during 2000-2014 – would tend to slow income disparity rates. This applies to the under-5 mortality rate, which fell from 134 per 1,000 live births in 1990 to 66.7 in 2015. Health indicators do not have a particularly strong effect on income inequality (Annex 14.2). Although the proportion of people covered under the National Health Insurance Scheme (NHIS) has been growing, inequality in coverage of health insurance schemes, introduced in 2003, and inequality of health infrastructure still impede progress. Evidence from the Ghana Living Standard Survey 6 (2012/13) reveals that enrolment is higher in urban areas (71.5 per cent) than in rural areas (63.9 per cent). Still, while 80.4 per cent of the working population reported that they had no access to subsidized medical facilities, only 25.0 per cent had access to clinics, health posts or community-based health services. All these aspects tend to limit significantly the impact of health services on inequality.

Water is vital to livelihoods, economic transformation and environmental sustainability. A negative correlation coefficient of -0.25 implies that water could impact income redistribution. Improved access reduces the time that women and girls spend fetching water, which increases the time available for productive and educational activities. If the marginal progress on access to improved water sources (i.e., from 53.9 per cent in 1990 to 55.6 per cent in 2015), led to a correlation index of -0.25 (Annex 14.3), it would have been substantial if the MDG target of 77 per cent for Tanzania were met. Burkina Faso's ability to bridge the water deficit by increasing access to water from 43.6 per cent in 1990 to 82.3 per cent in 2015 explains, to a large extent, the country's huge strides in reducing poverty. Accelerating access to improved water sources is vital to winning the inequality war in Tanzania.

14.3.8 The impact of external inflows, such as remittances and ODA, on income inequality varies by country

The relationship between remittances and income inequality is unclear. While the 'hump theory of migration' suggests that remittances are unequalising because only middle-income households are able to finance the high cost of migration (IMF, 2005), the seasonality and informality of migration within Africa, directed primarily at neighbouring countries, make migration low cost and, therefore, equalising (Rapoport and Docquier, 2005). Remittances have direct and indirect impacts on income inequality.

The strong correlation index between remittances and income inequality suggests that it is equalising in the three countries, with the greatest impact in Burkina Faso. With a correlation index of -0.821 (Annex 14.1), the direct relationship with income inequality is high. In addition, its indirect influence on income inequality is also very high, particularly with other factors that affect inequality, including total fertility rate, age-population dependency and under-5 mortality rate. In Ghana, the direct impact is minimal but the indirect influence is very high, especially with variables such as the total fertility rate, age-population dependency, under-5 mortality rate and access to improved water (see Annex 14.2).

The correlation index of -0.29 (Annex 14.3) suggests an inverse relationship between the two variables. An inverse relationship between remittances, total fertility rate and under-5 mortality rates is an indirect way of impacting inequality, as a result of a strong positive relationship between inequality, total fertility and under-5 mortality rates. The strong correlation between remittances and access to improved water sources also influences inequality indirectly.

The correlation index between ODA and income inequality is -0.730. In addition to the direct, high inverse relationship, improving ODA's operational efficiency and using ODA to expand access to improved water sources, scale up health spending and its management, reduce the under-5 mortality rate and accelerate secondary school enrolment could further help to address other impediments to income inequality in Burkina Faso. The positive correlation between ODA and income inequality in Ghana and Tanzania calls for enhanced operational efficiency and improved ODA effectiveness in these two countries. However, it is important to note that the indirect impact of ODA on other variables is very high.

14.3.9 Demographic factors are vital to manage income inequality

Chapter 9 of this book examines the impact of demographic transition on poverty and inequality in Africa. It argues, for instance, that one factor separating the poor from the rich is the fertility differential between rich and poor families. Poor families tend to have many children and are also more inclined to invest very little in their children's education. Inequality reduces household investment in education, thereby affecting economic growth (De la Croix and Doepke, 2002).

Demographic transitions (through falling fertility rates and age-dependency population) are good for poverty reduction, as per capita income of households with smaller family size increases. Burkina Faso has begun to experience a decline in fertility rate, from 6.8 in 1994 to 5.5 in 2014. The correlation index is 0.7.0 (Annex 14.1). Demographic transition seems to be associated with higher inequality. Households with a smaller family size tend to invest heavily in their children's education, special skills and health, thereby driving a wedge in the labour market between future wages for children from smaller families and children from poor households who were not exposed to quality education, skills and health services. This confirms the findings from Ouedraogo and Ouedraogo (2015) that households with a smaller size tend to have a higher Gini relative to those with large family size. The Gini ranges from 0.427, 0.378, and 0.390 for households with a family size of 1-6 people, 7-8 people, and 9 people or more respectively. Other factors associated with high inequality are the declining age-dependency rate and the falling under-5 mortality rates.

Although the correlation index between fertility rate and income inequality is low in Ghana, its destabilising impact on under-5 mortality rate, female secondary education, age-dependency ratio and access to water and health expenditure per capita seems huge. It therefore weakens the impact of some of these variables (e.g. access to water and female secondary education) on reducing income inequality and also strengthens the impact of other impeding factors (e.g. under-5 mortality rate and age-dependency ratio) on accelerating income disparities in Ghana.

As indicated in Annex 14.3, the correlation between fertility rate and inequality and between age-dependency ratio and inequality are relatively high. The Government of Tanzania must address factors that hinder reductions in inequality, such as the high fertility rate (5.3 between 2010 and 2014), high adolescent fertility rate (121.8 per 1,000 live births, 2010-2015) and high age-dependency rates (93.6 per cent, 2010-2015). Efforts to ensure that those left behind in the demographic transition receive

support through quality public education, skills acquisition programmes and access to quality health services will help to mitigate the unequalising effect of demographic transitions.

14.3.10 Social protection programmes play an important role in enhancing equity, but coordination, scale, funding and inclusive access pose challenges

Chapter 8 of this book examines the impact of social protection on income disparities in Africa. Social protection has been key to enhancing equity outcomes, particularly in Latin America. However, implementation of social protection programmes is still a work in progress in the three case study countries. Ghana is one of the few countries in Africa that has implemented many social protection programmes, with varying levels of success. Some of those programmes include the LEAP, the NHIS, Ghana School Feeding Programme, the Free School Uniforms and Exercise Book Programme, the Capitation Grant for Basic Education, the Labour Intensive Public Works and the 2016 National Social Protection Policy.[13] Although these have benefitted impoverished populations in various ways and have reduced poverty,[14] as relatively small programmes, they have had limited impacts on equality at the macro level.[15] Most of the inequality reduction programmes in Ghana are estimated to have come from public spending on health care services (Younger, Osei-Assibey and Oppong, 2015).

Since, 2007, Tanzania has undertaken significant steps to develop a National Social Protection Framework.[16] Following the successful implementation of the Tanzania Social Action Fund (TASAF) in 2000, in 2012-2013, the Government introduced the Tanzania Productive Social Safety Net programme (PSSN) as part of a national social protection framework to help increase household consumption, improve human development indicators and promote savings and investment among beneficiaries (One UN Social Protection Brief). In Burkina Faso, the Strategy for Accelerated Growth and Sustainable Development (2011-2015) prioritised social protection of vulnerable groups, which led to the adoption of the National Policy for Social Protection 2013-2022 in September 2012. Efforts to establish a national social protection fund are also underway. While the countries have various social security provisions (for formal sector employees) and a range of social assistance and protection programmes in place, the key challenges are access, coordination, coverage and funding.

Based on the social protection index computed for African countries in Chapter 8, Tanzania is ranked highest (0.60) followed by Ghana (0.49) and Burkina Faso (0.29). Yet, public social protection expenditure (excluding in-kind health benefits) as a percentage of GDP remains low in these countries. As Molini and Paci (2015) note, social protection as a share of GDP is 1.4 per cent. This ratio declined from 1.5 per cent in 2000 to 0.8 per cent in 2009 in Burkina Faso, but rose from 0.4 per cent in 2000 to 1.1 per cent in 2007 in Tanzania.[17] In Tanzania, the mandatory Social Security schemes covered just over 8.0 per cent of the population. Social assistance coverage was also limited, with less than 10.0 per cent of the population covered (World Bank, 2013). To date, the PSSN has

[13] See www.mogcsp.gov.gh/policies/National%20Social%20Protection%20Policy.pdf

[14] Evidence from Younger, Osei-Assibey and Oppong (2015) shows that the free school feeding programme for selected primary and junior secondary schools, with a concentration coefficient of -0.401, is the best government expenditure programme targeted to the poor in Ghana. Public spending on pre-primary, primary and junior high school was also found to be progressive, but benefits from teacher training and vocational schools are concentrated among better-off households. Nursing school and polytechnic education are unequally distributed, while university education is far more concentrated among the rich.

[15] See Ghana's Ministry of Gender, Children and Social Protection's Social Protection Fact Sheet #9 (2014), according to which only about one in seven people in extreme poverty benefitted from the Livelihood Empowerment Against Poverty (LEAP) programme.

[16] It should be noted that the National Social Security Policy enacted in 2003, aimed, among other things, at providing social assistance to the vulnerable.

[17] See www.ilo.org/dyn/ilossi/ssiindic.viewMultiIndic2?p_lang=en&p_geoaid=834&p_show_descs=Y

enrolled 1.1 million beneficiaries since its launch in 2012. The TASAF programmes are estimated to have contributed to the reduction in the extreme poverty headcount (food poverty line) from 11.7 per cent in 2007 to 9.7 per cent in 2011-2012 and to increased access to education and health services. Ghana seems to be more effective than Burkina Faso and Tanzania in implementing most of the social protection programmes, especially in rural areas.[18] In Ghana, however, urban interventions must be more targeted and results-oriented. Sharing experiences across countries on the implementation of social protection programmes is important. Efforts to address the coordination of funding and challenges of coverage are critical to making social protection more equalising

14.3.11 Efforts to stabilise inflation rates are central to achieving lower inequality

The positive relationship between inflation and income inequality has been argued in the literature (King and Wolman, 1996; Bulĭr, 1998). King and Wolman (1996), for instance, posit that the main assets of the poor (labour) are mostly unprotected from inflation, and argue that an annual inflation of 12.0 per cent results in a loss of six hours per quarter, compared to a lower inflation of 5.0 per cent. Bulĭr (1998), on the other hand, argues that the assets of the rich are mostly uncorrelated or weakly correlated with inflation or that their returns grow faster than inflation rates. In this regard, inflation can contribute to cyclical changes in income inequalities. He finds that the income-equalising effects of fiscal distribution are further reinforced by low inflation. As further argued by Günther and Grimm (2007), impoverished populations often allocate as much as 60.0 to 80.0 per cent of their spending to food; in keeping with Engel's Law, they therefore tend to suffer a higher-than-proportional decline in purchasing power when inflation rises.

How do these countries perform on inflation? Price stability is very pronounced in Burkina Faso, compared to Tanzania and Ghana. The annual average inflation rate between 1990 and 2015 was lowest in Burkina Faso (3.17 per cent), followed by Tanzania (13.59 per cent) and Ghana (20.52 per cent). It is therefore not surprising that progress in reducing income disparity is greatest in Burkina Faso, followed by Tanzania. Given that assets of the poor are mostly correlated, and that the poor spend a substantial portion of their income on food, the high inflationary trends in Ghana would have imposed substantial hardship on them.

Evidence from both the correlation index and ordinary least squares (OLS) regression for the three countries reveals that inflation does not play a significant role in income inequality in Burkina Faso. The most significant impact is in Ghana, with a correlation index of -0.453 and a coefficient of determination of 0.26. This suggests that inflation explains the 26.0 per cent variation in income inequality. When other variables are controlled for, its negative impact is significant, at 5.0 per cent.[19] The declining trend in inflation is paying off, but it began to rise in 2012. This trend could reverse the inverse relationship between inflation and income inequalities. Although the correlation index is 0.333 and the coefficient of determination is 0.11, the relationship is not statistically established.

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[18] For more information on social protection benefits adequacy in these countries, see http://databank.worldbank.org/data/reports.aspx?source=1229#

[19] The outcome of the OLS regression for Ghana is Gini = 41.86 -0.074 inflation; F-statistics = 4.86**; R^2 = 0.257.
(-2.204)**.
Where ** indicates 5.00 level of significance. The data are from 1991 to 2007.

14.4 Emerging lessons and conclusions

In Burkina Faso, income inequality has declined consistently for the past two decades. It began falling in Tanzania in 2007, after rising continuously for 17 years. In Ghana, it has risen without interruption for the past three decades. However, Ghana has made impressive progress in reducing poverty and has done a better job than Burkina Faso and Tanzania on this. These diverse experiences offer opportunities to draw lessons and share experiences across Africa. Some of the key lessons emerging from this chapter are enumerated below.

Lesson one: Promoting high economic growth is a necessary condition to reduce poverty and inequality, but ensuring quality of growth is a sufficient condition to achieve these objectives. If rapid reductions in poverty and inequality are to accompany high economic growth, that growth must be inclusive, transformative and equitable, such as in Burkina Faso. Growth must occur in sectors where the majority of the poor earn their livelihoods (e.g. agriculture and non-farm informal sectors); those left behind in this growth process must be supported through fiscal policies and social protection programmes. If growth is to provide opportunities for enhanced productivity and high-earning jobs, sectoral diversification towards manufacturing and non-farm activities is vital.

Lesson two: Boosting agricultural productivity is an imperative. The three economies - Burkina Faso, Ghana and Tanzania - are still largely agrarian. Evidence that agriculture is particularly equalising underpins the imperative to boost agricultural productivity through improved access to fertilizers, irrigation facilities, tractors, improved seedlings, credits, markets and post-harvest facilities. Increased agricultural productivity has a direct impact on rural and urban incomes simultaneously. However, enhanced productivity should not be limited to the top quintile or the wealthiest people. Enhancing productivity in agriculture reduces both poverty and inequality because agricultural growth tends to catalyse growth of the rural, non-farm sectors and can help to shift labour from low- to high-productivity activities. Increasing access to land, especially for women, is vital to using agriculture to accelerate reductions in poverty and inequality. Efforts should be made to ensure that gains achieved from increasing agricultural productivity do not end up in the hands of the very rich.

Lesson three: Adding value to primary commodities by engaging the private sector proactively is vital to generate high-paying jobs and bridge income gaps. In Ghana and Tanzania, exporting agricultural raw materials contributes to inequality. Exporting primary commodities – without adding value to them – is synonymous with exporting jobs for youth and women. Agriculture and mining in the three countries should serve as the springboard of industrialisation; adding value to agricultural and extractive products helps promote industrialisation. This also calls for strategies that integrate the formal and informal sectors to enhance productivity, increase income and improve working conditions. Investing in skill acquisition and infrastructure development, including incubation centres, is pivotal. This investment should not be limited to national value chains; regional collaboration and partnerships to harness regional value chains are also critical. School curricula should be aligned to this strategic goal by promoting technical, vocational, and skills acquisition in secondary and tertiary education as well as addressing gender disparities in education for rural and urban areas, including hard-to-reach areas. Increasing the quality of education in public schools is important to avoid trade-offs between quality education and high inequality. African educational systems must meet labour market realities.

Lesson four: Addressing regional disparities in the distribution of infrastructure, facilities and staff is critical. Urban-biased development has not halted rural-urban migration, urban squalor or rural poverty. Without addressing current infrastructure and service delivery deficits in most rural areas, it is not possible to simultaneously reduce poverty and inequality. Formulating and implementing spatial development plans, as was done for the health sector in Burkina Faso (National Health Development Plan, 2011-2020), is vital to tackle market failures and rebalance development opportunities to the benefit of disadvantaged regions and rural areas. Ensuring good governance of these programmes and the availability of long-term financing is essential. The problem is not the formulation of these plans, but their implementation. A solution calls for foolproof implementation strategies with high-level political commitment, including promoting a business-friendly environment, sustaining financing, tackling energy problems, developing effective local content policies for minerals and other sectors and adopting a problem-solving and innovation approach to promoting inclusive value chains and ensuring gender equity.

Lesson five: Addressing unequal access to education, health and water services is vital to reducing income inequality. It is evident that disparities in access to education (secondary and tertiary), basic health services and improved water infrastructure are critical to deal with poverty and inequality. It is equally critical to adopt progressive strategies giving priority to achieving demographic dividends by productively engaging the youthful population. The rising wave of school feeding programmes, free tuition, free health services for children under five and pregnant women, and accelerated access to improved water infrastructure is essential to reduce poverty and inequality rapidly. Lessons from the MDG era have shown that quality of results cannot be traded away for quantity of results. Poor education quality leads to unemployable graduates. The skill content of the educational system is vital.

Lesson six: Adopting and implementing comprehensive strategies to address gender-based inequities and to promote women's empowerment is key. Gender inequities are pervasive in education, political representation, ownership of- and access to- assets, and employment opportunities. This discrimination leads women to experience a disproportionate share of vulnerable employment across Burkina Faso, Ghana and Tanzania. Efforts to address this reality must be built into sectoral and national development plans, with adequate funds allocated to gender-based strategies and programmes. Particular attention must be given to high adolescent fertility and total fertility rates that accelerate poverty and inequality. Many African countries, including these three countries, have land acts legislating equal access and ownership of land to women. Yet in practice, the opposite is too often the case. Governments and civil society organisations must collaborate to ensure that women have equal access to land (as enshrined in national laws), raise awareness and protect the rights of victims of social exclusion at national and subnational levels.

Lesson seven: Promoting progressive fiscal systems and scaling up well-targeted social protection are key to reducing poverty and income inequality rapidly. Addressing the fiscal puzzle (high fiscal space with high Gini) calls for a progressive tax system that places more of the tax burden on high-income brackets, focuses on direct, as opposed to indirect, taxes and efficient tax administration, and diversifies government revenues away from the extractive sector. All these policies could help to reduce inequality (see Chapter 7). Tackling illicit financial flows, particularly from the extractive sector, and blocking leakages from misinvoicing and mispricing are similarly beneficial policies. Adopting minimum wages and collective bargaining policies promotes low wage compression. Three changes are required for social protection to become more results-oriented: scale up coverage to a large proportion of the poor; improve the targeting of social protection programmes; and address funding

challenges. The efficacy of school feeding programmes and cash transfers in Ghana is recognized, and other countries can learn from this.

Lesson eight: Increasing the productivity of remittances and ODA is key to accelerating poverty and inequality reduction. It is clear that remittances could be equalising in the three countries, with the highest impact in Burkina Faso. ODA is also equalising in Burkina Faso, while the net effect (direct and indirect) is relatively equalising in Ghana and Tanzania. Using remittances to address the main obstacles to reducing poverty and inequality, such as the Grand Ethiopian Renaissance Dam,[20] could create multiplier effects that move a large proportion of the population out of poverty and reduce income gaps. The need to improve ODA governance (predictability, alignment with national plans and processes and effective targeting of interventions) in countries such as Ghana and Tanzania is also important to make ODA sufficiently equalising.

Lesson nine: Protecting assets of the poor from inflation is essential. Inflation contributes to cyclical changes in income inequalities. It is similarly evident that the income-equalising effects of fiscal distribution are premised on low inflation. Inequality would have been higher in Ghana if not for the declining trend of inflation since 1995. Targeting low inflation is important to dealing with inequality.

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ANNEX 14.1 Correlation index between Gini coefficient and variables of interest in Burkina Faso

	Gini	TFR	Dependency	NSE	U5 Mortality	Agric RM	Yield	Healthepc	Water	ODA	Remittances	GDPpc
Gini	1.000											
TFR	0.700	1.000										
Dependency	0.637	0.969	1.000									
NSE	-0.649	-0.955	-0.853	1.000								
U5 Mortality	0.694	0.983	0.911	-0.987	1.000							
Agric RM	-0.281	0.094	0.061	-0.246	0.125	1.000						
Yield	-0.607	-0.743	-0.764	0.601	-0.703	0.222	1.000					
Healthepc	-0.705	-0.920	-0.821	0.991	-0.964	0.032	0.642	1.000				
Water	-0.672	-0.996	-0.985	0.925	-0.963	-0.093	0.748	0.889	1.000			
ODA	-0.730	-0.666	-0.500	0.898	-0.757	0.196	0.556	0.865	0.608	1.000		
Remittances	-0.821	-0.891	-0.793	0.922	-0.925	0.181	0.661	0.965	0.857	0.857	1.000	
GDPpc	-0.613	-0.987	-0.977	0.921	-0.957	-0.073	0.765	0.896	0.993	0.602	0.845	1.000

Note: Gini = Gini coefficient; TFR = Total fertility rate; Dependency = Age-dependency (% of total population); NSE = Net secondary school enrolment; U5 mortality = Under-5 mortality rate (per 1,000 live births); Agric RM = Agricultural raw material export as a share of total merchandize exports; Yield = Cereal yields per hectare; Healthepc = Health expenditure per capita; Water = Access to improved water sources; ODA = Net ODA per capita; Remittances = Personal remittances; and GDPpc = GDP per capita.

ANNEX 14.2 Correlation index between Gini coefficient and variables of interest in Ghana

	Gini	TFR	Depen-dency	NSEf	U5 Mortality	Agric RM	Yield	Healthepc	Water	ODA	Remit-tances	GDPpc	Adolescent
Gini	1.00												
TFR	0.04	1.00											
Dependency	-0.06	0.99	1.00										
NSEf	-0.47	-0.91	-0.91	1.00									
U5 Mortality	-0.07	0.97	0.99	-0.90	1.00								
Agric RM	0.08	0.73	0.74	-0.42	0.75	1.00							
Yield	-0.41	-0.49	-0.43	0.37	-0.42	-0.38	1.00						
Healthpc	-0.17	-0.59	-0.57	0.93	-0.65	-0.54	0.30	1.00					
Water	0.00	-1.00	-1.00	0.91	-0.98	-0.74	0.47	0.60	1.00				
ODA	0.42	-0.27	-0.35	0.70	-0.44	-0.64	0.18	0.72	0.32	1.00			
Remittances	-0.08	-0.93	-0.95	-0.54	-0.92	-0.84	0.23	-0.65	0.93	-0.51	1.00		
GDPpc	0.05	-0.96	-0.98	0.95	-0.99	-0.78	0.42	0.72	0.98	0.46	0.94	1.00	
Adolescent	0.01	1.00	0.99	-0.90	0.97	0.72	-0.48	-0.57	-1.00	-0.28	-0.94	-0.97	1.00

Note: Gini = Net Gini; TFR = Total fertility rate; Dependency =Age-dependency (% of total population); NSEf = Net secondary enrolment for female; U5 mortality = Under five mortality rate; Agric RM = Agricultural raw material export as a share of total merchandize exports; Yield = Cereal yields per hectare; Healthepc = Health expenditure per capita; Water = Access to improved water sources; ODA = Net ODA per capita; Remittances = Personal remittances; GDP pc = GDP per capita; and Adolescent = Adolescent fertility rate (per 1,000 live births).

ANNEX 14.3 Correlation index between Gini coefficient and variables of interest in United Republic of Tanzania

	Gini	TFR	Depen-dency	NPE	U5 Mortality	Agric RM	Yields	Healthepc	Water	ODA	Remit-tances	GDPpc	Adole-scent	GPE
Gini	1.00													
TFR	0.51	1.00												
Dependency	0.57	0.53	1.00											
NPE	0.12	-0.74	-0.29	1.00										
U5 Mortality	0.18	0.92	0.36	-0.95	1.00									
Agric RM	0.44	0.82	0.25	-0.53	0.78	1.00								
Yields	-0.35	-0.15	-0.41	-0.08	-0.03	-0.27	1.00							
Healthepc	0.10	-0.93	0.45	0.90	-0.94	-0.71	-0.18	1.00						
Water	-0.25	-0.94	-0.28	0.89	-0.98	-0.77	0.02	0.96	1.00					
ODA	0.20	-0.56	0.12	0.75	-0.77	-0.56	-0.18	0.80	0.76	1.00				
Remittances	-0.29	-0.93	0.32	0.66	-0.81	-0.70	0.03	0.88	0.87	0.67	1.00			
GDPpc	-0.08	-0.86	-0.16	0.95	-0.98	-0.71	-0.04	0.96	0.97	0.84	0.85	1.00		
Adolescent	0.51	1.00	0.53	-0.74	0.92	0.82	-0.15	-0.93	-0.94	-0.56	-0.93	-0.86	1.00	
GPE	0.24	-0.72	-0.23	0.99	-0.93	-0.54	-0.14	0.87	0.87	0.78	0.61	0.93	-0.72	1.00

Note: Gini = Net Gini; TFR = Total fertility rate; Dependency =Age-dependency (% of total population); NPE = Net primary enrolment for females; U5 mortality = Under five mortality rate; Agric RM = Agricultural raw material export as a share of total merchandize exports; Yield = Cereal yields per hectare; Healthepc = Health expenditure per capita; Water = Access to improved water sources; ODA = Net ODA per capita; Remittances = Personal remittances; GDPpc = GDP per capita; Adolescent = Adolescent fertility rate (per 1,000 live births); and GPE = Gross primary school enrolment.