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Three Stylized Facts about Inclusive Growth in Africa: Evidence from Cameroon, Senegal and Tanzania*

Georges Vivien Houngbonon†
Jeanne Avril‡
Nathalie Ferrière§
Arthur Bauer**
Hédi Brahimi††
Clara Champagne‡‡
Tite Yokossi$$
Abdoulaye Ndiaye***

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Abstract

In order to provide a representative view of the incidence of growth in Africa, we measure the inclusiveness of growth in Cameroon, Senegal and Tanzania. Using the growth in households’ expenditures across expenditures’ centiles, birth cohorts and places of residence, we identify three stylized facts about inclusive growth. First, the inclusiveness of growth does not depend on its magnitude. Second, the stability of growth is related to the inclusiveness of growth along places of residence. Third, the dimension along which growth is inclusive depends on the structure of growth.

Keywords: Inclusive growth, Africa, growth incidence, poverty, inequality
JEL classifications: O10, O15, O43, O55
1. Introduction

As reviewed by Ranieri and Ramos (2013), the process in the development literature leading to the concept of inclusive growth is a long and remarkable rethinking of the links between growth, poverty and inequality. In the third quarter of the 20th century, the general understanding in the development literature was that growth was accompanied with an initial increase in inequalities which past a turning point was followed by better conditions for the poor. This ‘trade-off and trickle down’ view of the relationship between growth, inequalities and poverty is best epitomized by Kuznets’s (1955) hypothesis that growth in early stages of development produces and exploits inequalities and that, later on in the development process, income inequality and poverty are reduced.

Such a mechanic and yet predominant view of the development process assumed that countries grow following basically the same steps as in Rostow (1956, 1959): going from the traditional society to take-off, maturity and then high-mass consumption, implicitly viewing any country’s growth process as an incremental progression towards better living conditions for the different segments of the society, including the poor. That view which was largely based on the economic trajectories of countries like the US and the UK was challenged by the trajectories of many developing countries which grew with increased inequalities but without any indication that the trend would be reversed at some point, that is without any indication that growth benefits would ever automatically trickle down to the poor. Another fact bringing discredit to that ‘trade-off and trickle down’ view was brought by the so-called Asian tigers: Hong Kong, Singapore, South Korea and Taiwan, which enjoyed from the 1970s to the 1990s fast growth combined with low inequality. The East Asian developmental experience clearly brought to light that growth and equity or low inequality are not incompatible (Ranieri and Ramos, 2013).

Adding to these facts, an important empirical literature testing Kuznets hypothesis didn’t find any clear-cut evidence that income per capita growth and distribution of growth were deemed to evolve as suggested by the hypothesis (Kanbur, 2000). Hence, for all these reasons, a growing consensus started to be built around the ideas that concerns about the distributional consequences of growth are worthwhile, that growth combined with more equity is better than growth alone and that high inequality makes it harder to reduce poverty (Lopez, 2004).

This rethinking of growth consequences in the development literature which recognizes that growth doesn’t automatically benefit the poor in the long run lead to a literature concerned about growth features that ensure better conditions for the poor. The concern with pro-poor growth became increasingly central and by the early 2000s, it was a clear departure from the old ‘trade-off and trickle down view’ (Ranieri and Ramos, 2013). However, two different definitions of the concept emerged. Ravallion and Chen (2003) and Grosse et al. (2008) considered pro-poor growth in the absolute sense that is growth episodes during which poverty rate drops. The main competing definition of pro-poor growth, put forward by White and Anderson (2001) and Grosse et al. (2008), is growth that benefits more to the poor than to the rich, requiring poor people’s income to grow more than that of the wealthier.
As on its definition, no consensus emerged on the adequate policies to spur pro-poor growth. Kakwani and Pernia (2000) pushed in favor of direct pro-poor policies, recommending policies “deliberately biased in favor of the poor” while Dollar and Kraay (2002) argued that implementing policies with a focus on property rights, macroeconomic stability, fiscal discipline and international trade would benefit the poor much more than direct pro-poor policies. The debate on pro-poor growth became even more complex with Kakwani and Silber (2008) and Grosse et al. (2008) acknowledging the multidimensionality of poverty and arguing that more parameters (education, health, general welfare) should be taken into account in the evaluation of pro-poor growth.

In this unsettling debate on pro-poor growth emerged the concept of inclusive growth, based on the idea that growth consequences are not just limited to changing the distribution of income and the observation that, as growth affects differentially gender, ethnic and geographic groups, who and how people engage in the development process matters (Ranieri and Ramos, 2013). Many definitions of inclusive growth have emerged with some of them being equivalent to the ‘absolute pro-poor growth’ or relative ‘pro-poor growth’ definitions (Grosse et al., 2008). However distinctions between the two concepts have been made. Klasen (2010) argues that while pro-poor growth is concerned about people whose income lies below the poverty line, inclusive growth is more general with an emphasis on growth benefiting to all groups and all parts of the society. Ali and Son (2007) defined inclusive growth as growth that increases social opportunities available to all the different stripes of the population. For Ianchovichina and Lundstrom (2009), growth is inclusive if it is sustainable in long run, and if it involves economic diversification and competition as well as if it is “broad-based across sectors, and inclusive of the large part of the country’s labor force”. Along the same lines, Bhalia (2007) emphasizes productive employment along with growth in productivity in existing jobs as key factors of inclusive growth.

Attempts to measure inclusive growth are fairly recent and far less numerous than attempts to conceptualize it. Habito (2009) assesses inclusiveness of growth in Asian developing countries, following a ‘weak absolute pro-growth’ definition and looking at the poverty elasticity of growth. Ianchovichina and Lundstrom (2009) evaluate the pace and pattern of growth to determine what is lacking for a country’s growth to be fully inclusive, paying attention to elements like geography and infrastructure, the cost of capital and the employability of the poor. An inclusive growth index was proposed by McKinley (2010) and includes indicators such as growth, income distribution and inequality, productive employment, economic infrastructure, gender equity, social protection and human capital. McKinley recognizes that data availability and the need for value judgments are caveats to the broad use of his index. Nevertheless, his inclusive growth composite index was applied to cases such as Bangladesh, Cambodia, India, Indonesia, Philippines, and Uzbekistan, an empirical attempt rare enough in this literature, to be worth mentioning. (Ranieri and Ramos, 2013).

In a very recent paper, Ramos, Ranieri and Lammens (2013) proposed to measure the inclusiveness of growth based on three factors: income poverty, inequality (as a proxy for the
benefit-sharing part) and employment-to-population (as a proxy for the participation dimension). They then applied this measure to 43 developing countries to determine their inclusiveness in two points in time, as well as how it varies with GDP growth during the period.

In this paper, we take a fresh look at growth inclusiveness in Africa, from the angle of the incidence of growth on the distribution of income and expenditures across centiles, generations and place of residence. In the previous decade, Africa enjoyed a much higher growth rate than its poverty reduction rate, spurring a debate on whether or not growth reduces poverty and inequality in Africa (Chen and Ravallion 2010; Sala-i-Martin and Pinkovskiy 2010). In order to provide insights on that question, we study the incidence of growth on inequalities in three African countries (Cameroon, Tanzania and Senegal) that have had different economic performances over the period 1990-2010.¹

Using household surveys conducted in these three countries, we describe how expenditure distributions have varied with economic growth. While previous studies have focused on the bottom of the income distribution, we go further by analyzing the evolution of the whole distribution of households’ expenditures, in line with the growth incidence curve (GIC) approach developed by Chen and Ravallion (2003). With this focus on the whole income distribution and not just on the income of the poor, our study is more closely related to the emerging literature on inclusive growth (Ali and Son 2007) than to the ‘purely’ pro-poor growth literature. Using birth cohorts, we are able to do away with one of the main limitations of the GIC approach which is the possibility that individuals might have moved from one quantile to another between two waves of survey. Finally, relating these inclusiveness results with the features of growth and the macroeconomic policies in each country, we can shed some light on potential public policies that could yield more inclusive growth in Africa.

This paper is organized as follows. Section 2 presents the features of economic growth and policies in each country. Section 3 describes the empirical strategy, the data we used and a few summary statistics. The main results of this paper are presented in section 4 as well as the three stylized facts our results seem to indicate. Section 5 concludes.

### 2. Features of growth and economic policies in Cameroon, Senegal and Tanzania

Major macroeconomic and social policies such as currency devaluation, budget cuts, Value Added Tax (VAT) increase, privatization, schooling subsidization, infrastructure-developing or healthcare improving policies have been implemented in our three countries of interest as well as in many other African countries. These policies are likely to affect not only the features of growth but also the incidence of growth on the reduction of poverty and inequality.

¹ According to the African Economic Outlook Report, between 2003 and 2011, the average growth rate was about 3.1% in Cameroun, 7% in Tanzania, and 4.2% in Senegal.
In all three countries of interest, the goal of monetary policy has been to ensure price stabilization only, not economic growth. Within this policy framework, Cameroon and Senegal experienced a devaluation of their currency by half of its value in 1994. This devaluation generated a large increase in food prices and strongly hit the purchasing power of the poor.

Along with the currency devaluation, Cameroon and Senegal implemented an austerity program – mainly by downsizing public service - slashing public spending by almost 50%. The VAT was introduced in 1999 in Cameroon, years after Senegal and Tanzania. It was followed by the enactment of the income taxes in 2004 in Cameroon and Tanzania. In addition, Cameroon abolished export taxes in 1998.

As to industrial policies, all three countries underwent privatization and liberalization of their former state-owned monopolies. Cameroon privatized rail and air transportation companies in the late 90s. In 2003, a private company was chosen to be in charge of the rail transportation in Senegal for a 25-year period. The liberalization process was more broad-based in Tanzania where private companies took over most of the industries, between 1993 and 1999 for small manufacturing and service-oriented firms, and between 2001 and 2004 for big companies in the telecommunication, transportation, energy, water, mineral and finance sectors.

The three countries also engaged in the abolition of school fees and in large-scale constructions of primary and secondary schools and health facilities over the period of study.

These public policies are linked to the specific growth patterns that each country experienced. The economic growth rate has been lower in Cameroon and Senegal than in Tanzania. On average, the GDP growth rate in Cameroon was 4.7% between 1996 and 2001 and 3.4% between 2002 and 2006. Likewise, the average growth rate in Senegal was 3.8% between 1994 and 2001, and 4.3% between 2002 and 2006. Meanwhile, in Tanzania, the average growth rate over the period running from 2008 to 2010 was 6.8 percent. As to growth dynamics, economic growth has been relatively stable in Cameroon and Tanzania, unlike Senegal where there were several ups and downs.

While all three economies are service-driven (telecommunications and tourism), the contribution of each sector to GDP differs. For instance, manufacturing is much more developed in Cameroon than in the other two countries. On top of its diversified agricultural resources, Cameroon benefits from the presence of several industries such as textiles, chemicals, aluminium, cement, oil derivatives, and construction. Senegal has a greater share of its output coming from the services. However, the overall economy is dominated by fishing activities, construction and tourism. In Tanzania, agriculture (coffee, cotton and tobacco) accounts for a bigger share of GDP than in Cameroon and Senegal. In addition, the country benefits from the exploitation of gold mines.
Indeed, these features are linked to the inclusiveness of growth as measured by the change in households’ expenditures by centiles, generations and places of residence.

3. Empirical Strategy

3.1. Dataset and Variables

In this paper, we use data from the Nationally Representative Households Survey conducted in Cameroon, Senegal and Tanzania by the country’s office of statistics. In Cameroon, there were three waves of surveys in 1996, 2001 and 2006 respectively. Likewise in Senegal, the surveys were conducted in 1994, 2001 and 2006 respectively. In Tanzania, we focus on the most recent and more accurate households’ panel surveys conducted in 2008 and 2010. However, for our analysis we only consider the year with the best coverage during the data collection to ensure the accuracy of the computation of the year of birth.

The sampling procedure involves a two-stage stratified design whereby the population is first stratified according to some regions of residence and to whether they live in urban or rural areas. Within each stratum, some enumerating areas are randomly drawn with probability inversely proportional to the number of households living in the area. Finally, a given number of households are randomly drawn from each enumerating area. By staying at the region level, our estimation accounts for this sampling design.

As both income and household expenditures cannot be individualized in the African context, our analysis relies on information at the household level. Data contains information on annual total household expenditures, the head of household age or birth year (if available) and the region of residence.

First, we compute the adult equivalent real annual households’ expenditures in dollars Purchasing Power Parity. The equivalence scale used to normalize expenditures across households is provided by the Food and Agriculture Organisation (FAO). This scale is deemed more accurate in so far as it is disaggregated by gender and by several age groups. In addition, it allows us to carry out cross-country comparisons. The household consumption unit is computed as the sum of the adult equivalence scale of all individuals living within the household. In order to account for inflation, we use the Consumer Price Index provided by the World Bank’s WDI online database for Cameroon and Senegal (base 2005). However, this price index is not suitable for the conversion of the nominal expenditures in real terms in Tanzania. Actually, the World Bank price index yields a general decrease in the real expenditures in Tanzania, which is not consistent with the strong positive GDP growth rate experienced by the country. This is probably due to the wide cross-region variation in the price level in the country. Hence, we rely on the real annual households expenditures provided directly in the database by the national office of statistics. By using different price indexes for the different countries, we cannot make cross-country comparison in annual expenditures. Since we are just interested in identifying the stylized facts
associated to each country, the difference in the price index should not affect our conclusion. Regarding the conversion into the international dollar PPP, we rely on the PPP conversion factor for private consumption available in the WDI online database. Any given household’s expenditures are computed by dividing the nominal annual expenditures by the consumption unit, the consumer price index and the PPP conversion factor.

Second, we compute the centiles of the distribution of expenditures by taking into account the survey weight. Third, by taking the household head as the household representative, we derive his year of birth by taking the difference between the chosen year of survey and his age, when the information is not readily available as in the case of Cameroon and Senegal. Using these years of birth we are able to create seven 5-year birth generations - from 21 to 55 years old. Finally, we generate the dummy variable place of residence by splitting the sample of households into two groups: those living in the capital city versus those living in the Rest of the Country (RoC).

The key property of each of these three variables is that their categories do not change over time and their definition does not depend on the country. However, the composition of centiles, the generation or the place of residence may change over time. For instance, there might be some inter-centile mobility of the households so that the yearly variation is not computed for an identical category of households. This is a typical problem in the construction and the interpretation of the Growth Incidence Curve, when a panel of individuals is not available. In our case, the data on Cameroon and Senegal do not have a panel structure. Even though the Tanzania’s survey relies on a panel of households, the fact that expenditures and particularly the income cannot be individualized does not enable us to use that panel structure to overcome the inter-centile mobility problem. Keeping this shortcoming in mind, we assume that inter-centiles mobility is not very significant.²

Actually, by using the birth generations, not only do we overcome the mobility problem but we are also tackling the issue of the incidence of growth on inter-generational inequality. Still, there might be some mortality bias in the comparison of the average expenditures of a given generation across years. Typically, the poor are likely to die earlier; suggesting that even absent any incidence of growth on expenditures, older generations should be spending more. If this were the case, we would expect the demographic structure of the population to change particularly at the top of the age distribution. However, we do not identify graphically any significant change in the structure of the age distribution across surveys.

Similarly, the composition of the capital city in terms of the living standards of the households may change due to the migration of poorer workers from the rest of the country to the town. We check this by looking at the share of households living in the capital city versus the rest of the country. The share of households is stable over our period of study. Moreover, we do not have

² If we assume that the mobility can be even lower across smaller quantiles (e.g. quintiles) the analysis can be implemented at this level to check if the overall pattern of the GIC is still present. We leave this analysis for the robustness check.
any account of a large migration of poor workers towards the capital city of in any of the three countries over the period of study.

3.2. Methodology

Basically, the methodology involves tracking the change in the households’ expenditures over a year according to the categories defined by the centiles, birth generations and places of residence. Hence, we compute the average annual growth rate of the annual households’ expenditures for each category.

If $cent_{it}$ is the $i^{th}$ centile of the expenditure distribution at year $t$, following Chen and Ravallion (2003) the growth incidence curve is the set of points $(i; g_{it})$ where $g_{it}$ is the average growth rate of the centiles of the expenditure distribution. Formally, the expression of the growth rate $g_{it}$ computed over a period of length $l$ writes:

$$g_{it} = \left[ \frac{cent_{it}}{cent_{i,t-1}} \right]^{\frac{1}{l}} - 1$$

Likewise we extend the concept of the growth incidence curve to other dimensions of inclusive growth; namely birth generations and places of residence. Hence, if $E_{ct}$ denotes the weighted average of expenditures of households in category $c$ (e.g. living in the capital city or which household head is from the generation $c$) at year $t$, the incidence of growth over the category $c$ is estimated using the yearly average growth rate of the average expenditures following this expression:

$$g_{ct} = \left[ \frac{E_{ct}}{E_{c,t-1}} \right]^{\frac{1}{l}} - 1$$

The growth incidence curve in this case is the set of points $(c; g_{ct})$.

At this stage, we do not define any measure of inclusive growth. However, we are able to identify graphically whether growth has been much more inclusive in one by comparing to another. This graphical interpretation requires a formal definition of inclusive growth.

From our point of view, growth can be inclusive along several dimensions. In this paper, we consider the centiles of the expenditures distribution, the birth generations, and the places of residence as three independent dimensions of inclusive growth. Each dimension is described by a set of categories. Hence, growth is inclusive along a given dimension if the growth rate is at least the same for all the categories in that dimension. The more the underprivileged categories are gaining, the more inclusive is growth. Typically, growth is deemed more inclusive along centiles if the bottom centiles experience higher growth rate than the top centiles. Similarly, growth is more inclusive along generations if the younger generations are gaining more than the older. Likewise, growth is more inclusive along places of residence if the individuals living outside the
capital city are gaining more than those living inside the capital city. The underlying idea is that there should be a convergence in the level of expenditures/income across all categories within a dimension. Once the convergence is achieved, growth is inclusive when all categories experienced the same change in their expenditures/income. As usual, the rate of convergence depends on the initial level of expenditures/income. We therefore need to examine the initial level of expenditures across the different categories.

3.3. Summary Statistics: Initial level of expenditures

There are some similarities at the top of the initial distribution of household expenditures in the three countries. Particularly, the top 5 percent has very similar level of expenditures in each country. However, there are a few differences at the bottom and the middle of the expenditures distribution. Senegalese households have the lowest level of expenditures, followed by Cameroon and Tanzania respectively. This is probably due to the baseline year, 1994 in Senegal, 1996 in Cameroon and 2008 in Tanzania. If growth is inclusive along centiles, we should expect that the bottom and the middle of the distribution are gaining much more than the top in Senegal and Cameroon.3

Regarding the initial level of expenditures across generations, it turns out that the younger generations are much richer in Cameroon and Tanzania than in Senegal. In the latter country, the middle age generation is the one that has the highest level of expenditures. Hence, we expect the growth rate of expenditures to be at least uniform or ideally more favourable to the younger generations in Cameroon and in Tanzania for growth to be inclusive. In Senegal, the growth rate of expenditures should be much higher for the youngest and the oldest generations for economic growth to be inclusive along generations. Here again, the positive time trend is at work. Though we are comparing individuals from identical age group, the initial level of expenditures is higher in Tanzania (2008) than in Cameroon (1996) which is also higher than the level in Senegal (1994). Therefore, we shall expect a much larger growth rate in households’ expenditures in Senegal than in Cameroon and Tanzania.

As expected, the level of expenditures is much higher in the capital city than in the rest of the country and the time effect is still remarkable. Therefore, inclusive growth along the place of residence dimension should generate greater growth rates in expenditures for the households living in the rest of the country. These growth rates should be higher in Senegal than in Cameroon and lower in Tanzania.

3 We need to implement a Kolmogorov-Smirnov test to provide a statistical inference on the comparison of the different expenditures distribution.
4. Results

4.1. Main results about inclusive growth

Following our definition of inclusive growth, the next three figures present the inclusiveness of growth along the three dimensions identified: centiles, generations and places of residence.

Along centiles and over the period of this study, economic growth has been relatively inclusive in Cameroon, moderately inclusive in Senegal and not inclusive in Tanzania, as shown in graph 1 below. Indeed, in Cameroon, between 1996 and 2001, the bottom and the middle of the expenditures distribution gained much more than the top. This advantage was strengthened between 2001 and 2006 whereby the growth rate at the bottom of the expenditures distribution was much larger than the growth rate at the top. However, the growth rate in expenditures was flat across centiles in Senegal over the two periods considered. Even if the growth rate in Senegal tends to be slightly higher for the upper centiles, the overall shape of the growth incidence curve is not as clear-cut as in Tanzania. In the latter country, the upper centiles are gaining from growth while the lower centiles are loosing. The general shape of the growth incidence curve in Tanzania between 2008 and 2010 is exactly the opposite of what we would get if growth was inclusive along the distribution of expenditures.

Besides, the average growth rates in each country and each period are consistent with the initial conditions. They are generally higher in Senegal than in Cameroon and less so in Tanzania.
The picture is different along generations. As graph 2 shows, economic growth is much more inclusive in Tanzania, moderately inclusive in Senegal but not inclusive in Cameroon. In fact, the younger generations in Tanzania have experienced greater growth rates in their expenditures than the older. This is not the case in Cameroon where the older generations are gaining much more than the younger. On the contrary, the younger generations enjoyed higher growth rates in their expenditures in Senegal between 1994 and 2001, even though the incidence of growth on households’ living standards is almost uniform across generations between 2001 and 2006. The larger growth rates for the very young generations in Senegal are consistent with inclusive growth given the initial conditions described in the previous section.
Graph 2 - Source: Households’ surveys from the individual country.

Note: On the vertical axis, there is the average annual growth rate of households’ expenditures over the period. The birth cohorts are on the horizontal axis. According to the year of the survey, the birth cohorts are defined as follow: head of households between 21 and 25 years old (1); 26 and 30 years old (2); 31 and 35 years old (3); 36 and 40 years old (4); 41 and 45 years old (5); 46 and 50 years old (6); 51 and 55 years old (7). The bounds of the age interval are included in the definition of the cohort.

Growth has been strongly inclusive along the place of residence dimension in Tanzania between 2008 and 2010. From a low level of expenditures in the rest of the country compared to the capital city, households outside the capital city of Tanzania have experienced a much larger increase in their annual expenditures than those in the capital city. Typically, the growth rate in the expenditures of households living in the capital city was 0.1% compared to 2.2% in the rest of the country.

In Senegal, the overall results point out to a moderately inclusive growth along the area of living dimension. On the one hand, although the growth rate is larger in the capital city than in the rest of the country between 1994 and 2001, the difference is not so large. On the other hand, the growth rate is larger in the rest of country than in the capital city between 2001 and 2006. This is consistent with the initially low level of expenditures in the rest of the country.

As shown in graph 3, the results are somehow contrasting in Cameroon between the two periods. Between 1996 and 2001, growth was not inclusive along the place of residence dimension, contrary to the next period between 2001 and 2006 when growth was more inclusive. Indeed,
between 1996 and 2001, the households living in the capital city experienced nearly 5% of growth in their expenditures while those living in the rest of the country have seen their expenditures increased by only 2.2%. It is the opposite story from 2001 to 2006.

Overall, it turns out that growth is not necessary inclusive along all dimensions within a country. Between 1996 and 2001, economic growth in Cameroon was inclusive along the distribution of expenditures; but not along birth generations and places of residence. However, it was also inclusive along the place of residence during the next period running from 2001 to 2006. Over the whole period, only the older generations have been benefiting from growth in Cameroon. In Senegal the incidence of growth is somewhat moderate. The growth rates are usually flat across all categories in a given dimension. While the growth in Tanzania was not inclusive along the distribution of expenditures, it was inclusive along birth generations and places of residence. In other words, even though not every expenditure group is benefiting from growth in Tanzania, the younger generations as well as households living in the rest of the country have been gaining more than the others. Without making any causal inference, we expect that the major public policies conducted in the three countries are related to the outcome of growth in terms of
inclusiveness along expenditures distribution, birth generations and place of residence. These relationships are the stylized facts about inclusive growth that need to be confronted with results from other studies/contexts before any tentative causal inference can be drawn.

4.2. Identifying three stylized facts about inclusive growth

A general summary of the results is presented in the table below. This table relates the features of growth with its inclusiveness along centiles, generations, and place of residence. Each of these relationships is associated with a list of public policies implemented within the corresponding country. By doing so, we are able to identify three stylized facts about the determinants of inclusive growth.

First, irrespective of the dimension considered, the inclusiveness of economic growth does not depend on the magnitude of growth. Indeed, as presented in the table below, the incidence of growth on the distribution of expenditures across centiles, generations or places of residence is not necessarily the same for countries that experienced low growth rates. While the inclusiveness of growth is moderate in Senegal, a low growth country, it is strong in Cameroon along the centiles and place of residence, but not along generations. In addition, growth has been inclusive along the place of residence for both low and high growth countries. Therefore, inclusive growth can be witnessed in both low growth and high growth contexts.

Second, our results suggest that growth stability is related to inclusive growth along the area dimension. Actually, the inclusiveness of growth along the place of residence dimension in Cameroon and Tanzania is associated with stable growth in these countries. In Senegal where growth is unstable, the inclusiveness of growth along the area dimension is moderate. Hence, greater benefit of growth accrues to households living outside the capital city when growth is stable.

Third, the structure of growth is related to the dimension along which growth is inclusive. More specifically, the economy that is more driven by manufacturing activities experiences inclusive growth along all classes (centiles) of expenditures. According to the results summarized in the table below, Cameroon is a case in point. In addition, the Senegalese economy, service-driven but with some prominence of agriculture (fishing) and industry (construction) yields a moderately inclusive growth along the three dimensions. In Tanzania, where agriculture (coffee, cotton, tobacco) and mining (gold) are predominant, growth is inclusive along generations and places of residence, but not along centiles.

The three countries have implemented very similar public policies. However, the results in the table below show that significant budget cuts do not necessarily lead to high growth, no matter what the structure of the economy is. The budgetary austerity is linked to low growth rates in such non agriculture-based economies. Furthermore, this low growth is stable in the manufacturing-based economy and unstable in the service-based economy. These relationships
suggest that the public policies that are conducive to inclusive growth depend on the structure of the economy, which is in this context driven by the natural endowment of the country.

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<td><strong>Growth Feature</strong></td>
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<td>Structure</td>
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<td><strong>Growth Inclusiveness</strong></td>
<td>Expenditures’ distribution</td>
<td>Yes</td>
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4.3. Robustness check: On the quality of the macroeconomic indicators

Our results are likely to be limited by the usual caveats that apply to most current empirical work using GDP data on Africa. Therefore, we check that our data is not vulnerable to the criticism of the quality of statistics in the development literature on Sub-Saharan economies. Jerven (2013) documents statistical inconsistencies in that region where the limited capacity of national statistics offices and particular historical trajectories affect negatively the quality of growth measurements. The most striking example was disclosed when In November 2010, the Ghana Statistical Service announced an upward revision of the country’s total GDP by 63% and its sudden upgrade from a low-income country to a lower-middle-income country.

We compare the main sources of GDP measures to check the consistency of the growth data of Cameroon, Senegal and Tanzania in the relevant period (1994-2011): the World Development Indicators (WDI), the Penn World Table, the Maddison Database and data from the National
Statistical Service of each country. The first three international datasets use the same raw data from national statistical offices, but they modify it in different ways to account for inflation and other factors.

Our results indicate consistency between measures of the international datasets WDI and the Maddison Database: the correlation coefficient of GDP measures between these two sources is 1.0 for both Cameroon and Senegal and 0.96 for Tanzania. However Jerven (2011) documents possible major differences between measures of National Statistical services and measures of international datasets such as those of the WDI (for Cameroon there is a 24% difference in GDP between the measure of the national statistical office and WDI measure) due to difficulties to incorporate the informal sector into GDP. In spite of these potential flaws, we believe that our macroeconomic indicators do not suffer from significant measurement errors that would be driving our conclusions.
5. Conclusion

This paper applies the Growth Incidence Curve framework, developed by Chen and Ravallion (2003), to households’ survey data collected in Cameroon, Senegal and Tanzania, in order to identify some stylized facts about the causes and the appropriate policies for inclusive growth. Three stylized facts about the potential causes of inclusive growth emerge from our analysis. First, the inclusiveness of growth does not depend on its magnitude. Second, the inclusiveness of growth along the area dimension is related to growth stability. Third, the dimension along which growth is inclusive depends on the structure of growth. Regarding public policies, we find that their impact depends on the structure of economic growth.

These conclusions have been drawn from the observed associations between the results summarized in the table above. Therefore, they cannot be used as causal inference unless the analysis is replicated for many more countries. These replications shall yield some general associations between economic policies, the features of growth and its inclusiveness. Another extension could be the analysis of the relationship between inclusive growth and economic vulnerability.
References:


