Poverty, Inequality and Labour Markets in Africa: A Descriptive Overview

Haroon Bhorat
Development Policy Research Unit
University of Cape Town
hborat@commerce.uct.ac.za

Abstract

This paper examines, through the application of available data, the poverty, inequality and labour market challenges facing Sub-Saharan Africa (SSA). The paper illustrates that apart from levels of poverty and inequality that are inordinately high in SSA, the region is also beset with perhaps the more worrying problem of accounting for almost all of the world's ultra-poor: namely those individuals living on less than half of the standard $1 a day poverty line. In addition we show that the both the level and nature of economic growth in SSA are not conducive to poverty reduction. In addition, the diluting effect of income redistribution through growth, suggests that much higher levels of income growth are required to maximise the impact on absolute and relative poverty levels in the region.

The labour market analysis alludes to the rapid projected growth of the labour force in the region, hence further raising the importance of improving the character and level of growth rates on the continent. A caricature of the region where the dominant form of employment remains rural-based and at low skill levels, combined with burgeoning, but haphazard urban informal employment – is the underlying labour market descriptor of the welfare challenges faced by the continent.

Acknowledgements

Development Policy
Research Unit
Tel: +27 21 650 5705
Fax: +27 21 650 5711

Information about our Working Papers and other published titles are available on our website at:

http://www.commerce.uct.ac.za/dpru/

Table of Contents

Introduction

With the pending challenge of the Millennium Development Goals (MDGs) of the multi-lateral institutions, it is evident that the welfare performance of the African economy looms large in the minds of the global policy community. It is also evident, however, that the continent faces possibly the hardest task in terms of trying to meet some, if not all, of these goals. Within the environment, the intention of this paper is extremely modest. We examine in a compressed empirical form, the poverty, inequality and labour market challenges facing Sub-Saharan Africa (SSA). The approach is to describe the empirical coordinates of these multiple challenges, using available data. Within this context, the specific character of poverty and inequality in SSA is described, with some focus on the role of economic growth in engendering welfare gains for the region. The discussion on SSA labour markets, given significant data problems, is far less ambitious as we focus on the shifts in participation rates and the potential growth points in the region's labour markets at both the spatial and sectoral levels.

Poverty and Inequality in Africa: A Descriptive Overview

The development challenge facing the African continent is most succinctly captured through a variety of poverty and inequality indicators – either over time or in comparison with other regions of the world. These measures of welfare will elucidate, at least initially, on how the performance of African economies have not been able to deliver a sufficient quantum of jobs to the population of working age, and as a consequence have generated the extraordinary levels of indigence on the continent.

Table 1, is of course indirectly drawn from the work of Chen and Ravallion (2004) who measure the changes in the headcount, poverty gap and poverty gap squared indices over the period 1987-1998 for seven different regions of the world according to 1993 purchasing power parity (PPP) prices. The procedure here, has been to utilise the web-based interface made available by these authors, to calculate the headcount and poverty gap indices for these regions for four discrete years, namely 1981, 1987, 1990 and 2001.[1]

---

1   These measures are based on the Foster-Greer-Thorbecke class of poverty measures, now widely in use, and emanating from Foster, Greer & Thorbecke (1984). We report the measures variously for those cases where á=0, 1 or 2, which represent the headcount, poverty gap and squared poverty gap measures respectively.

Poverty, Inequality and Labour Markets in Africa: A Descriptive Overview

Table 1: Consumption Poverty Measures by Region of the World, At 1993 PPP

Region	1981	1987	1990	2001	Annualisd % Change
Headcount Index					
East Asia and Pacific	57.67	28.04	28.86	14.34	*-3.76*
East Europe and Central Asia	0.79	0.44	0.57	3.46	*16.90*
Latin America and the Caribbean	10.06	10.77	10.87	9.96	*-0.05*
Middle East and North Africa	5.08	2.91	2.32	2.35	*-2.69*
South Asia	53.25	45.04	40.66	31.89	*-2.01*
Sub-Saharan Africa	41.54	50.76	46.77	46.19	*0.56*
Eastern & Southern Africa			38.7	42.49	*0.20*
Central & West Africa			50.03	48.89	*-0.05*
Poverty Gap Index					
East Asia and Pacific	20.58	7.7	7.43	3.24	*-4.21*
East Europe and Central Asia	0.23	0.16	0.16	0.76	*11.52*
Latin America and the Caribbean	2.89	3.34	3.49	3.51	*1.07*
Middle East and North Africa	1	0.58	0.49	0.45	*-2.75*
South Asia	16.87	12.34	10.59	7.39	*-2.81*
Sub-Saharan Africa	16.84	22.61	19.33	20.27	*1.02*
Eastern & Southern Africa			17.35	18.64	*0.16*
Central & West Africa			20.32	21.74	*0.15*

Source: World Bank (2004) and author's own calculations

Notes: 1. Data is based on a variety of different surveys across the different countries, with country coverage within the years varying across the regions. The measure for all countries in the Middle East & North Africa; South Asia and SSA is consumption expenditure.

2. The poverty line is set at $32.74 per month at 1993 PPP is the $1 a day line. See Chen & Ravallion (2001) for details on the derivation of the line.

3. Countries covered for Eastern and Southern Africa were: Botswana, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, South Africa, Swaziland, Uganda, Tanzania, Zambia and Zimbabwe.
Countries covered for Central and West Africa: Burkina Faso, Burundi, Cameroon, Central African Republic, Cote d'Ivoire, Ethiopia, Gambia, Ghana, Mali, Mauritania, Niger, Nigeria, Rwanda, Senegal, Sierra Leone.

In terms of the results from the data, it is evident that the highest level of intra-regional poverty is to be found in Sub-Saharan Africa (SSA), where across all points in time, close to half of the region's population were classified as poor. This is followed by South Asia, which also records very high headcount indices as close to a third of the region's population in 2001 remained poor. Notably for SSA, the sub-regional headcount figures illustrate that the proportion classified as poor was higher in both 1990 and 2001 for Central & West Africa, relative to Eastern & Southern Africa.[2] Clearly then, the incidence of poverty in SSA remains the highest internationally. However, what is often less appreciated is the starker world region differences that are manifest when examining relative poverty levels. Here the poverty gap estimates are most useful, as they provide a measure of the mean (poverty line-proportionate) distance of poor households from the poverty line. It is clear from the data above, that the poor in SSA are relatively worse off than the poor in the rest of the world. In 1990, for example, the average poor household in SSA lived about 19 percent below the $1 a day line. In South Asia, the average poor household earned 11 percent below this line, while in East Asia & the Pacific, the figure was 7 percent. The proportionate differences in the poverty gap indices, relative to the headcount measures are higher. They reflect on the fact that while the proportion of households classified as poor is the highest in SSA, perhaps a more critical marker for indigence in this region is that the poor here are significantly worse off than those in the rest of the world. Put simply, the incidence of relative poverty is also the highest in SSA when compared with the rest of the developing world.[3] We return to this issue in greater detail in some of the data below.

The figures over the years covered, however, are perhaps more disturbing, as they record the progress that a region has made in reducing its levels of poverty. For example, despite the high headcount and poverty gap measures for South Asia in 1981, over the ensuing two decades, this region has managed to steadily reduce levels of poverty – at an annualised rate of between 2 and 3 percent depending on the measure of poverty.[4] In East Asia, also a high-poverty region, the performance was remarkable, as this region has been able to halve its headcount ratio within a decade. Even with China excluded, the performance has been exceptional.[5] In contrast, the SSA region's poverty indicator has remained unchanged over the decade. The growth and development process in the region has in fact resulted in an increase in both the headcount and poverty gap indices over the period 1981-2001. In absolute terms, while there were approximately 164 million poor individuals in SSA in 1981,

---

2   Note as always, but more so for Sub-Saharan Africa, these figures are based on countries where consistent data is available. It is possible that the inclusion of some countries in either of the regions could alter this sub-regional ranking, although it is highly unlikely to alter the status of the continent as the poorest region in the world.

3   Although not shown here, results for the squared poverty gap reinforce these differences in relative poverty. Hence, in 2001, the squared poverty gap for SSA was 11.98, while in South Asia it was 2.36, and 1.05 for East Asia & the Pacific.

4   The decline also occurs for both the headcount and poverty gap, when India is excluded.

5   For example, East Asia & the Pacific with China excluded, yields a reduction in the headcount from 39.27 in 1981 to 8.19 in 2001, with the poverty gap falling from 12.05 to 1.37 over this period.

this figure had increased to 316 million in 2001 (Ravallion & Chen, 2004). Put differently, the economies of Africa have not, in the aggregate, been able to alter the probability of an individual or household being poor over this 20-year period.

A number of key points relevant to SSA (and indeed Africa as a whole) emerge from the above very brief overview of poverty trends in the world. Firstly, SSA yields the highest intra-regional poverty levels in the world, with initial evidence that the levels of indigence are greater in Central & West Africa, relative to Eastern & Southern Africa. Secondly, with the average poor SSA household earning a fifth of the poverty line, this yields a key characteristic of poverty in the region: namely that the poor in SSA are relatively worse off than the poor anywhere else in the world. Thirdly, over a twenty-year period, largely through the 1990s, Sub-Saharan Africa has been unable to significantly alter the proportion of individuals in the region who are living and earning below $1.03 per day – which lies in stark contrast to many other regions of the developing world.

In the data provided below, we analyse the second of the above conclusions, namely the nature of ultra-poverty in SSA relative to the rest of the developing world. Hence, Figure 1 provides the cumulative distribution functions (c.d.fs) for all the major regions of the developing world. What is clear is that first-order dominance holds for SSA, for a range of poverty lines up to (and including) a poverty line of $57.295 per month, in 1993 PPP prices. The lines beyond this reveal a higher incidence of poverty in South Asia, relative to SSA. The daily equivalent of the highest expenditure value shown below is about $3 a day. The data thus shows that about 87 percent of all households in SSA and 91 percent of those in South Asia, are living below this line.

Figure 1: Cumulative Distribution Functions, By Major World Region, 2001
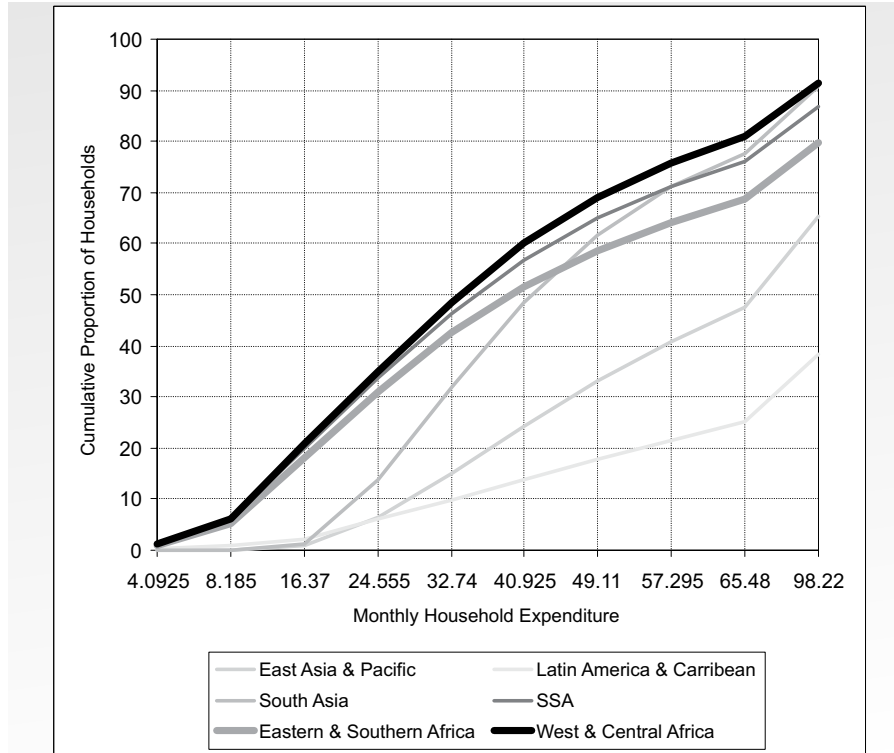
**Source:** World Bank (2004) and author's own calculations

Notes:

1. Data is based on a variety of different surveys across the different countries, with the country coverage within the years varying across the regions. The measure for all countries in the Middle East & North Africa; South Asia and SSA is consumption expenditure..

2. Countries covered for Eastern and Southern Africa were: Botswana, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, South Africa, Swaziland, Uganda, Tanzania, Zambia and Zimbabwe. Countries covered for Central and West Africa: Burkina Faso, Burundi, Cameroon, Central African Republic, Cote d'Ivoire, Ethiopia, Gambia, Ghana, Mali, Mauritania, Niger, Nigeria, Rwanda, Senegal, Sierre Leone.

An important aspect of the distribution functions though, and one alluded to in Table 1 above, lies in the comparative distributions at the bottom-end of the expenditure range. In these cases, specifically at expenditure values below $1 a day ($32.74 per month), the incidence of extreme poverty in Africa is striking. Hence, while about 46 percent of all the continent's inhabitants survive on less than $1 a day, the figure with a poverty line of $0.50 is about 21 percent for SSA and 6 percent when the poverty line is set at $0.25. Comparatively, a negligible proportion of households in the rest of the world report earning less than $0.50 – with the maximum being about 2 percent in Latin America & the Caribbean. What this data suggests is that while the high incidence of poverty according to the $1 day line, is now well-known for SSA – this needs to be overlayed with a key feature of the continent's welfare

challenge: that the presence of the ultra-poor in SSA distinguishes it very starkly from the poor in the rest of the developing world. The significantly higher poverty gap estimates for SSA suggested this fact, and indeed the distribution functions above are a strong affirmation of this notion that the problem of poverty in SSA revolves around the plight of the ultra-poor.

A final issue in this very brief overview lies in ensuring that one does not allow the averages to mask the distinct differences in indigence levels within the different regions. Hence, it remains important to examine the distribution, in this case the distribution of headcount indices, around the mean. Hence, figure 2 makes it clear that only 5 countries in the sample of 28, yield a headcount that is somewhere near the region's average.

Figure 2: Frequency Distribution of Headcount Indices in SSA: 2001

World Bank (2004)
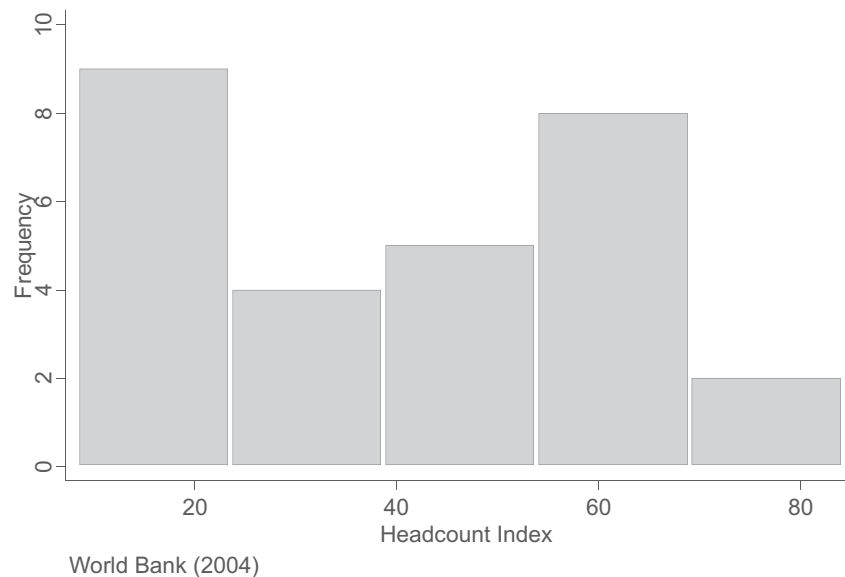
As the histogram illustrates, at the bottom-end of the scale there are 13 SSA economies, where the headcount is less than 40 percent. Alternatively, there are 10 economies in the sample where the proportion of poor exceeds 60 percent. Apart from the obvious statistical point that the averages do mask significant country-level differences, the more general point in this data is that SSA should not be treated as a homogenous unit, with very similar levels of vulnerability and hence similar required interventions.

It is possible of course for economies and societies to yield, according to an internationally comparative poverty line, high levels of poverty but retain fairly low levels of inequality. Indeed, one of the dangers of fast-growing developing countries is that while poverty levels

6

may decline, the result may be a more skewed distribution of income. Table 2 attempts to provide evidence on the level of income inequality in Africa, compared with a set of regions around the world, is drawn from a study undertaken by Deninger and Squire (1996), who use a database of national household surveys and other instruments completed over the four decades since the 1960s. The measure of inequality utilised here is the Gini coefficient. After Latin America & the Caribbean it is clear, Sub-Saharan Africa records the highest levels of income inequality over the four decades.

**Table 2: Gini Coefficient Estimates over Four Decades**

Region	Overall Average	1960s	1970s	1980s	1990s
Latin America & Caribbean	49.78	53.24	49.06	49.75	49.31
Sub-Saharan Africa	**46.05**	**49.9**	**48.19**	**43.46**	**46.95**
Middle East & North Africa	40.49	41.39	41.93	40.45	38.03
East Asia & the Pacific	38.75	37.43	39.88	38.7	38.09
South Asia	35.08	36.23	33.95	35.01	31.88
Industrial countries & high income developing countries	34.31	35.03	34.76	33.23	33.75
Eastern Europe	26.57	25.09	24.63	25.01	28.94

Source: Deninger & Squire (1996)

While there has been a decline in inequality within SSA since the 1960s, a Gini in the region of about 0.47 reflects a highly unequal region. Aside from Latin America & the Caribbean, the other developing country regions yield Gini values that are between 0.32 and 0.38 – far below that of SSA. Complementary data, not provided here, shows that for Africa as a whole, while the bottom quintile of the population accounted for less than 10 percent of the region's income, the figure for the top quintile was over 50 percent.

The country-level data provided in Figure 3, draws on the World Bank dataset utilised in the previous section. The lowest recorded Gini in the sample, is for Rwanda with a Gini of 0.29. However, this estimate was undertaken before the war in the country and is thus unlikely to be an accurate reflection of the distribution of income in the society. Probably the more credible estimate is for Ethiopia, where the Gini is 0.30 in 2001. Hence, in this sample of 28 African countries, levels of income inequality during the 1990s, ranged from about 0.30 to 0.74 - this latter estimate being for Namibia. It is clear therefore that not only is the African continent beset with the highest intra-regional levels of poverty in the world, it also has very high levels of income inequality. While this inequality has declined marginally since the 1960s, it has not been sufficient, as the country evidence indicates, to significantly alter the region's distribution of income.

Figure 3: Gini Coefficient Estimates

Source: World Bank (2004)

Graphs by eastasia
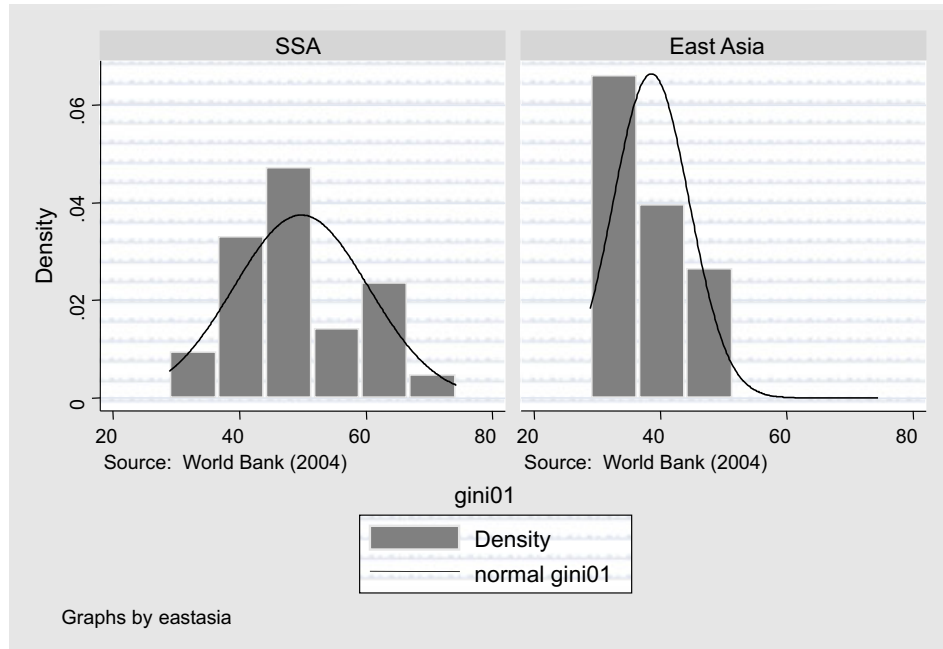
In addition, though, the data does reinforce the earlier assertion concerning the importance of examining distributions around the mean, when examining aggregated data. Hence, despite the high Gini for the region, there is a notable distribution around this mean, with a standard deviation for the sample of 10.635. However, even with this disaggregated data, the comparison with inequality within East Asia & the Pacific region, shows not only the lower levels of inequality in this region, but its lower levels of dispersion. Hence the lowest recorded Gini in this samples was 0.303 (Mongolia) while the highest was 0.495 (Malaysia), yielding a standard deviation of 6.00.

The above section has tried, through the use of basic statistics on poverty and inequality in SSA, to outline the scale of the welfare challenge facing the continent. A few important additional results are derived here, beyond the well-known fact that the continent yields the highest incidence of poverty in the world – and indeed accounts for the largest proportion of the world's poor. These further observations include firstly, the fact that while the incidence of poverty is high in SSA, it is in fact the large proportion of these vulnerable households that are ultra-poor, which defines the problem of poverty in SSA more accurately and acutely. The poverty gap, squared poverty gap measures and cumulative distribution functions for the world's regions, were powerfully indicative of this fact. In addition, it was also made clear in both the inequality and poverty figures, that while the aggregate measures for SSA are a key guide, they do mask the differentiated measures at the country-level. Hence, the fairly disparate Headcount and Gini measures are reminders that the region should not be treated as a homogenous block.

African Economic Growth and Poverty Reduction

The above discussion has alluded to the inability of SSA to, over the last two decades, deliver an appropriate economic performance that could have resulted in significant reductions in household vulnerability. We explore this in greater detail by considering the relationship between economic growth and poverty reduction for the continent, drawing implicitly on the rich literature that has developed in this area recently (see Dollar & Kraay, 2000; Ravallion, 2004 and Ravallion & Chen,2004). Where necessary, we also draw on the experience of East Asia & the Pacific for comparative statistics.

Figure 4 presents the annualised change in per capita mean income (dollarised) since 1981 for the 28 countries in SSA and then for East Asia & the Pacific. Visually, the figure is of course striking, revealing a decline in per capita mean income for both the 1981-87 and 1990-2001 periods for SSA.

Figure 4: Per Capita Mean Income Change in SSA and East Asia

Data for the periods 1981-1987; 1990-2001 & 1981-2001
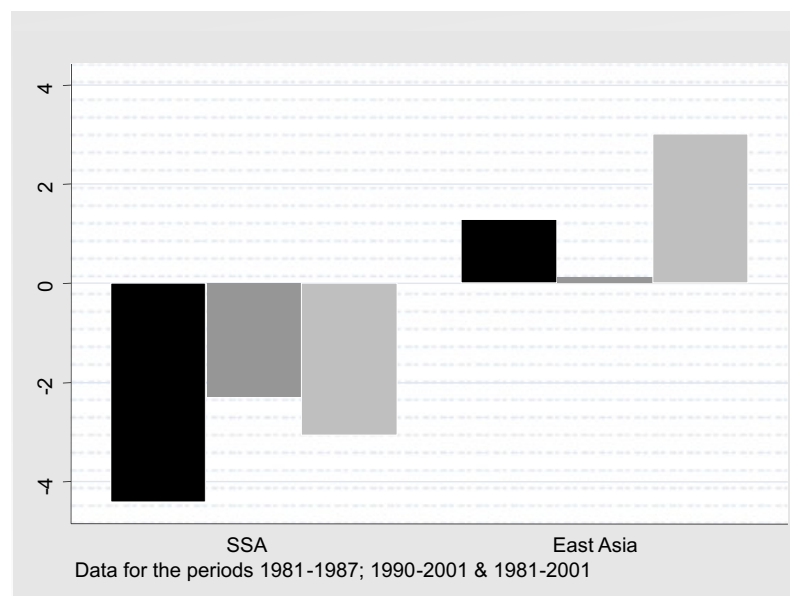
Hence, in the 1981-87 period for example, per capita mean income in SSA, declined at an annualised rate of 4.42 percent over the period. Indeed, only one country (Cameroon) in the sample recorded a positive growth rate. Relatively in the 1990s through to 2001, the performance improved marginally as the negative growth in mean income slowed to -2.3 percent per annum. In turn, 5 countries in the sample, recorded annualised positive per capita mean income growth rates – ranging from 0.3 to 1.5 percent per annum. These countries were Botswana (0.45 percent); Burkina Faso (0.29 percent); Ethiopia (0.34 percent); Lesotho (1.52 percent) and Mauritania (1.08 percent). In contrast, however, whilst still in the midst of the East Asian crisis, half of the sample of countries in this region still recorded positive growth rates. Over the full period then from 1981-2001, the mean growth in per capita

mean income was 3.01 percent per annum, with Cambodia, China, Indonesia and Vietnam all recording growth rates in excess of 4 percent per annum.

While there is a less clear set of answers on the relationship and interaction between economic growth, poverty and inequality – a stronger and more widely accepted correlation does exist between economic growth and levels of absolute poverty. Hence, we attempt below to estimate, following the formulation of Datt & Ravallion (2002) and Ravallion (2002), the relationship between economic growth and poverty for SSA through a simple OLS regression. The results, reported below, examine SSA, SSA excluding South Africa & Nigeria and finally East Asia & the Pacific as the international developing country comparator, while its graphical depiction is provided in Table 3. Most results are significant at the 5 percent level and reported fairly high R^2 measures. For example then, in the period 1990-2001, a 1 percent increase in per capita mean income in SSA would have resulted in a 1.24 percent reduction in the headcount, a 2 percent reduction in the poverty gap and a 2.5 percent reduction in the squared poverty gap. Clearly then, there has been a significant response in terms of poverty alleviation in SSA, to economic growth. The response magnitudes are very similar when South Africa and Nigeria – the continent's two dominant economies – are excluded.

Table 3: Elasticities of Poverty Measures to Mean Income Change

Elasticity Measure/Period	1981-1987	1990-2001	1981-2001
SSA			
Headcount	-1.62	-1.24	-1.23
	(-11.89)	*(-6.43)*	*(-6.33)*
Poverty Gap	-2.41	-1.98	-1.82
	(-12.40)	*(-5.73)*	*(-5.42)*
Poverty Gap Squared	-3.11	-2.51	-2.30
	(-12.88)	*(-5.24)*	*(-4.93)*
SSA excl SA & Nigeria			
Headcount	-1.66	-1.22	-1.24
	(-12.53)	*(-6.24)*	*(-6.19)*
Poverty Gap	-2.47	-1.94	-1.83
	(-13.76)	*(-5.59)*	*(-5.35)*
Poverty Gap Squared	-3.19	-2.46	-2.32
	(-15.05)	*(-5.11)*	*(-4.88)*
East Asia & Pacific			
Headcount	-0.35	-3.71	-2.23
	(-0.31)	*(-4.57)*	*(-3.40)*
Poverty Gap	-0.54	-4.49	-2.47
	(-0.60)	*(-3.56)*	*(-2.08)*
Poverty Gap Squared	-0.52	-4.46	-3.11
	(-0.63)	*(-4.03)*	*(-3.53)*

Source: World Bank (2004) and author's own calculations

Notes:
1. Results based on regression of log of the proportionate change in the poverty measure against log of the proportionate change in per capita mean income by country within each of the specified regions.
2. *t*-statistics in parenthesis, while all regressions passed tests for heteroskedasticity
3. There were 28 countries in the SSA sample and 10 in the sample for East Asia & the Pacific

However, it is the comparison with East Asia & the Pacific which is telling. Here, in the 1981-1987 period, there was a more elastic poverty reduction response to economic growth in SSA than in East Asia & the Pacific. The latter region for example, yielded a 0.35 percent reduction in poverty for a 1 percent growth in incomes, compared with a 1.6 percent reduction for SSA. However, from the 1990s onwards, this changes dramatically. Hence in the 1990s, East Asia & the Pacific was yielded poverty-growth elasticities of around 4 percent, depending on the poverty measure, with the SSA measure only on average about half this. Hence, while the causality from economic growth to poverty reduction holds for SSA, it is evident that for the

same given level of growth, SSA has been less able to alleviate poverty than East Asia & the Pacific region. To some extent then, the trajectory of growth in SSA has been less pro-poor than that reported in East Asia & the Pacific. Put differently, SSA, apart from inadequate growth rates is also not effectively translating this growth into poverty alleviation.

One of the criticisms of the above approach is that it ignores the potential impact of changing inequality on poverty levels – namely that the process of economic growth indices shifts in inequality which, in of themselves, may erode some or all of the growth-assocaited poverty reduction gains (Kakwani, 1993). In attempting to deal more broadly with the different interactions between poverty, inequality and growth, we follow the methodlogy proposed by Kakwani (1993), which essentially provides for three useful measures reflecting on the link between poverty, inequality and growth. The first of these is a distribution-neutral measure of the poverty-growth elasticity. The measure is readily estimated using the following equation when utilising the $P_{\acute{\alpha}}$ class of poverty measures:

$$\eta_{P_\alpha} = -\alpha \left[\frac{P_{\alpha-1} - P_\alpha}{P_\alpha} \right] \, for\, \alpha \neq 0 \tag{1}$$

Essentially, this equation measures the 'pure growth' effect on poverty reduction, independent of the distribution of income. However, in a period of economic growth, the income distribution changes can and often do occur. Hence, as noted above, it is entirely possible that despite economic growth, subsequent changes in the distribution of income, may militate against any significant reduction in poverty. We can measure this relationship between poverty and inequality (as measured by the Gini), when utilising the P_α class of poverty measures (Kakwani, 1993) as:

$$\varepsilon_{P_\alpha} = \eta_{P_\alpha} + \frac{\alpha\mu P_{\alpha-1}}{z P_\alpha} \, for\, \alpha \neq 0 \tag{2}$$

Given the simultaneous impact of mean income growth and inequality on poverty, an important issue then is what increase in mean income is required to mitigate against distributional outcomes eroding poverty reduction gains. We can measure this for the FGT class of poverty measures, again according to Kakwani (1993) as:

$$MPRS = -\frac{\varepsilon_{P_\alpha}}{\eta_{P_\alpha}} \tag{3}$$

where the MPRS refers to the marginal proportional rate of substitution between mean income and income inequality.

We now turn to estimations of these various measures for SSA and East Asia & the Pacific regions, with the intention of trying to explore the interactions between economic growth, poverty and inequality in SSA – and in turn how these have changed over the last two decades and how they compare with the East Asia & Pacific region. Examining the poverty-mean income elasticities for SSA (and assuming that inequality-induced poverty shifts do not occur), a few results are important here: Firstly, that over the period 1981 to 2001, for all the years, there has been a disproportionate reduction in poverty levels for a given rise in economic growth. Put differently, poverty reduction is sensitive to economic growth – a result corroborated by the regression analysis above. Secondly, and as with the above regression results, this elasticity for SSA declined over the period. Hence, while a 1 percent increase in economic growth delivered for this sample (a 1.47 percent reduction in poverty in 1981) the measure slipped to 1.28 percent in 2001.

Table 4: Elasticities of Poverty Measures

Year	1981	1987	1990	2001
Sub-Saharan Africa (n=28)				
P_1 -Mean Income Elasticity	-1.47	-1.25	-1.42	-1.28
P_2-Mean Income Elasticity	-1.64	-1.42	-1.58	-1.46
P_1-Gini Elasticity	4.95	4.11	4.32	4.35
P_2-Gini Elasticity	7.83	6.74	6.92	7.09
MPRS: P_1	3.38	3.30	3.04	3.40
MPRS: P_2	4.77	4.76	4.37	4.85
East Asia & Pacific (n=9)				
P_1-Mean Income Elasticity	-1.80	-2.64	-2.88	-3.43
P_2-Squared-Mean Income Elasticity	-2.36	-3.15	-3.50	-4.35
P_1-Gini Elasticity	3.87	5.97	7.19	10.37
P_2-Gini Elasticity	6.47	9.04	10.77	15.44
MPRS: P_1	2.15	2.26	2.49	3.03
MPRS: P_2	2.74	2.87	3.07	3.55

Source: Author's own calculations

While this decline over the years is instead reversed in the case of East Asia & the Pacific, perhaps what is more disconcerting, is that the value of the elasticities for the latter are consistently higher than those for SSA. Hence, the East Asia region yields a more sensitive reduction in poverty, for any given level of economic growth, relative to SSA – a fact also borne out in the regression estimates in Table 4. What is important though to point out about the nature of economic growth for SSA (and the East Asian region) is that the poverty gap squared elasticities are higher than the poverty gap estimates. What this suggests is that economic growth in both these regions will be more beneficial to the ultra-poor relative to the moderately poor.

The crucial caveat to the above growth-poverty nexus however, lies in the distributional changes that may occur in the growth process. Hence, if inequality increases during a growth phase, then there is a possibility that poverty levels may in fact increase. The second set of measures, namely, the poverty-inequality elasticity estimates, provide an indication of this sensitivity. Hence a 1 percent rise in the Gini in SSA resulted in an increase in the poverty gap of between 4 and 5 percent. This is lower than East Asia & the Pacific, where it is clear that the growth process mitigated against higher levels of poverty reduction as a result of the significant (and rapidly growing) sensitivity of poverty to rising income inequality.

The final measure – the MPRS – provides some sort of policy benchmark in that it indicates the levels of economic growth that may maximise poverty reduction gains in the environment of growing inequality. Hence, the MPRS with respect to the poverty gap for SSA in 2001, tells us that the region needed a growth in mean incomes of 3.4 percent to compensate for a 1 percent growth in the Gini. This has stayed fairly consistent over the last two decades for SSA and is higher when the poverty aversion parameter, $\acute{a}$, increases. Interestingly though, for East Asia it appears that there is a slightly lower trade-off, as in 2001 for example, a 3.5 percent (as opposed to 4.9 percent for SSA) growth rate was required to compensate for a 1 percent increase in the Gini index.

Ultimately then, for countries in Africa where positive income growth is reported, levels of poverty will fall as a result – but this reduction will be intermediated through simultaneous changes in the distribution of income. If income growth is not sufficiently high, the distributional shifts may in fact reverse any poverty gains. In addition, for the numerous economies on the continent where negative income growth is reported, this invariably means an increase in poverty given that inequality is very unlikely, under these circumstances, to decline.

The above, deliberately broad, overview of poverty and inequality trends in SSA have alluded to a number of key features of the continent's significant welfare challenges. The point of departure is of course the well-document facts that the largest proportion of the world's poor live in SSA. What is often less appreciated though is that the ultra-poor – those for example living on 50c a day –almost without exception reside in Sub-Saharan Africa. The developing world's problem is about the moderately poor – for SSA it is about the ultra-poor. Combined with this problem, the region outside of Latin America & the Caribbean, yields the highest levels of income inequality, which in a period of economic growth may begin to mitigate against greater reductions in poverty levels. This distributional constraint on poverty reduction through economic growth remains a key component to significantly altering the proportion of poor individuals and households on the continent. However, in a continent (even when individual country and not regional averages are taken) where the growth in mean incomes has been at best tepid, the likelihood of significant reductions in absolute and relative poverty remains an even harder objective.

Labour Market Dynamics in Africa

There remains a dearth of consistent cross-sectional and trend-based labour market data for the continent. The data that is available is notoriously uneven both in terms of quantity and quality across individual countries in the region. Notably this information system for poverty and inequality data, as shown above, is far more advanced; and the experience in this area could prove useful in the establishment of a more formal, regular and standardised data collection system for Africa.

Despite the above difficulties, there are some important deductions that can be made concerning the nature and character of the African labour market on the basis of the available data. Table 5 documents labour supply trends across different regions in the world between 1980 and 2000. In addition, projections are provided for the period 2000-2010. The twenty-year period data since 1980, indicates that of the six regions covered, SSA's labour force grew the third fastest at 2.6 percent on average per year. This was above the world mean of 1.8 percent, but below the Middle East & North Africa, which recorded the highest growth in labour supply over the period.

Table 5: Labour Supply Trends in Regions of the World

Region	Av. Annual growth rate in Labour Force		Female % of labour force		Population, ages 15-64				
	1980-2000	2000-2010	1980	2000	1980	2000	1980	2000	%Change
East Asia & Pacific	1.9	1.1	42.5	44.4	820.4	1239.7	2.56
Europe & Central Asia	0.5	0.4	46.7	46.3	274.2	318.4	0.81
Latin America & Caribbean	2.7	1.9	27.8	34.8	201	324.9	3.08
Middle East & North Africa	3	3.1	23.8	27.7	91.6	171.2	4.34
South Asia	2.2	2.1	33.8	33.4	510.7	817.4	3.00
SSA	2.6	2.2	42	42	197	346.3	3.79
Total	1.8	1.4	39.1	40.6	2600.9	3806.4	2.32

Source: World Bank (2002a)

It is notable that the projections for the 2000-2010 period reveals that despite a predicted decline in SSA's labour force growth rate to 2.2 percent, this would make the region the second fastest growing in the world. This is largely due to a significant decline in growth rates predicted for Latin America & the Caribbean. The challenge posed by this labour supply growth is perhaps best described through the high growth in the population of working age

that occurred during the 1980-2000 period. Here we see that this population grew the fastest in the Middle East & North Africa, followed by Sub-Saharan Africa.

The labour force data by gender is equally interesting, as it indicates that across all regions of the world, the share of women in the economically active population either increased or remained constant. Thus, this supports the international evidence, of how the changing structure of production in developing and developed countries has lowered the barriers to entry for women into the labour market. A positive feature for SSA in this context is that the region does have a large proportion of women in the labour force – higher indeed than the international average. Ultimately, the steady growth in the labour force and the predicted increase in this rate to 2010 for SSA, does mean that it remains a huge challenge for policymakers concerned with the region to ensure that the environment and conditions are created to match the growth in labour supply with an expansion in labour demand (intermediated through economic growth) in the region.

Coupled with the growth in the population of working age, it is necessary to determine the extent to which these individuals are likely to be working or seeking work in the labour market. In this case then, the participation rate of an economy is an indication of the pressure on a given economy or region to ensure that sufficient labour absorption is occurring to minimise the incidence of joblessness. Unfortunately, data problems in almost all the countries in the region hamper the ability to present data on labour force, and on the growth of participation rates. Importantly, this kind of analysis would provide analytical and empirical rigour to these mandates. We try and provide in Box 1 on South Africa, an example of the type of data that could and should be collected for economies in the region.

Box 1: Measures of Labour Market Performance for South Africa

The data here for South Africa is based on two nationally representative and comparable household surveys run in 1995 and 1999 respectively. The data presents employment and labour force growth rates by race, together with two measures – termed the 'target growth rate' and the 'employment absorption rate'. The employment and EAP growth rates are presented together, as the key is to measure relative as opposed to absolute labour demand shifts. The target growth rate can be represented simply as:

$$\frac{EAP_{kt-1} - EAP_{kt}}{L_{kt}} \tag{1}$$

where EAP refers to the economically active population for group *k* and *L* is the number of employed individuals, by any given covariate. Note that because this target growth rate captures the growth required to provide employment to only the new entrants since 1995, it is essentially the rate of growth required to absorp all net new entrants, independent of the unemployment numbers existent in the base year, namely 1995. The employment absorption rate is the ratio between the actual employment growth and the desired (or 'target') rate, and is expressed as a percentage. The closer the employment absorption rate is to 100, the better the actual relative to the desired employment performance. These figures are critical as they are predictors of relative employment performance – something that the standard growth rates do not yield.

| Race | Employment | | EAP | | | |
	Change	% Change	Change	% Change	Target Growth	Employment Absorption Rate
African	612146	9.94	2441841	25.50	39.65	25.07
Coloured	178515	15.95	258090	17.97	23.06	69.17
Asian	43607	12.37	88534	21.75	25.11	49. 25
White	119799	6.22	170266	8.42	8.84	70.36
Total	971504	10.17	2980719	22.18	31.19	32.59

Using the above approach, it is evident that while all growth rates were positive, the relative labour demand shifts, as approximated by the employment absorption rate, yield contrasting results. For example, while the African growth rate was higher than White employment growth, the employment absorption rate tells a very different story. Hence, we see that the relative performance of African employment, when considering the new African entrants into the labour market, was actually far poorer. While African employment should have grown at about 40 percent to absorb all the new entrants, White employment only needed to expand by 9 percent. The gap between the actual and desired job performance for Africans (25.1) was far wider than that for White workers (70.4). Put differently, employment was generated for only 25.1 percent of all new African entrants into the labour market, relative to 70.4 percent of all White new entrants. The generic point though is that while positive employment growth was reported for all race groups, relative to the growing labour force, all races yielded poor or inadequate labour demand growth.

17

Failing the wide availability of the type of data provided in Box 1, it is not possible to provide a sense of the performance of Africa's labour market in terms of its ability to absorb new entrants into employment. While this may be extremely difficult to do for the region as a whole, it is possible to concentrate efforts aimed at producing these statistics for say, urban areas, only on a regular basis. Failing this, data of this sort for the region's major cities and its non-agricultural sectors alone, would go a long way toward crafting a picture of the state of African labour markets.

Given the above caveats about data, Table 6 provides participation rates for Africa as a whole, and its five broad sub-regions. Across these sub-regions, interestingly Northern Africa records the lowest participation rates with Eastern Africa recording the highest. The former's low participation rate is in large part a function of the very low participation rates amongst women in these countries.

Table 6: Labour force Participation Rates of Population at Age 15-64 (per cent)

Group	Year	Eastern Africa	Middle Africa	Northern Africa	Southern Africa	Western Africa	Africa
Total	1980	81.9	76.8	56.9	66.4	74	72
	1995	80.7	74.9	58.5	66.3	72.6	71.5
	2000	80.3	74.5	59.8	66.3	72.3	71.5
	2010	79.6	73.8	63.3	66.6	72	72.2
Male	1980	89.9	89.0	84.2	85.3	89.4	88
	1995	88.7	87.0	82.6	82.9	87.7	86.3
	2000	88.2	86.3	82.3	82.4	86.8	85.8
	2010	87.5	85.1	82.8	81.7	85.6	85.2
Female	1980	74.1	65.2	29.6	47.6	59.0	56.4
	1995	72.8	63.3	33.9	50.0	57.9	56.8
	2000	72.5	63.1	36.7	50.5	58.1	57.4
	2010	71.8	62.8	43.2	51.6	58.6	59.2

Source: ILO (2000)

Indeed, if one compares the male participation rates across the sub-regions, they are all above 80 percent, while the dispersion for women is greater, as Northern, Southern and Western Africa in particular yield fairly low rates for females. Furthermore, the data shows that female participation in three of the five sub-regions has in fact declined between 1980 and 2000. A positive result though is that the low participation regions – Northern and Southern Africa have yielded increases in the participation of women in the labour market since 1980. The data on female participation also needs to be compared with the growth in employment in the services sector which, by one estimation, has expanded by 35 percent during the 1990s (ILO, 2002). This is a key comparator, given the lower barriers to entry proffered by the services sector to women. A key challenge for the SSA region therefore, is to ensure that policies and programmes are in place to challenge existing stereotypes that prevent or discourage the involvement of women in the labour market. The intervention also makes good economic sense, as studies on intra-household behaviour have confirmed that

women are more prudent utilisers of a household's budget, tending to spend income earned or received on asset accumulation rather than pure consumables. For example, a study of Guinea showed that women have a greater preference than their partners in investing in education through the household budget, and interestingly are relatively more inclined to educate their daughters (Glick & Sahn, 2000).

The spatial dimension to the nature and character of African labour markets is critical. In particular the phenomenon that has characterised these economies, and thereby affected individual country labour markets, has been the rapid urbanisation process within the SSA region. It is this process that has also fuelled much of the debate in the literature around the urbanisation of poverty in Africa and other developing country regions (see for example Sahn & Stifel, 2002). Table 7 documents the growth in urban populations around the world. It focuses on the developing world for the two decades from 1980.

Table 7: Urbanisation Trends in Regions of the World % of **Total population**

Region	Urban Population		% of Total population		Average annual % growth
	1980	2000	1980	2000	1980-2000
East Asia & Pacific	309.8	652.4	22	35	2.95
Europe & Central Asia	249.3	310.1	59	65	0.51
Latin America & Caribbean	233.4	388.7	65	75	0.77
Middle East & North Africa	83.5	172.9	48	59	1.15
South Asia	201	385	22	28	1.36
SSA	87.7	226.9	23	34	2.39
Total	1759.9	2847.8	40	47	0.88

Source: World Bank (2002a)

The world's population has been urbanising at a steady rate since 1980. While 40 percent of the world's population were classified as urban in 1980, twenty years later the figure was 47 percent. However, two regions of the world stand out as drivers of this trend, namely East Asia & Pacific and Sub-Saharan Africa. The latter's populace urbanised at an average rate of 2.39 percent over the period while the figure for East Asia & Pacific was close to 3 percent. For SSA, what this means is that the demands placed on urban labour markets have grown tremendously over the twenty-year period. Despite this growth though, the share of the population that is urban in Sub-Saharan Africa is still fairly small by international comparisons. Hence, we see that in 2000, 66 percent of the region's population were still rural-based. The rapid growth in urban populations across SSA, should not mask the fact that in absolute terms the region is still predominantly rural-based. The upshot from this is that in addition to focusing on the microeconomic constraints of greater involvement in the labour market, noted above, it is critical that a rural bias be given to interventions aimed at improving the functioning of output and factor markets in Sub-Saharan Africa.

One of the outcomes of this rapid urbanisation process in SSA has been to rapidly alter the nature of labour markets within urban areas. Rural households over this two-decade period released members to search for employment in urban areas, or as the case may be, entire household units migrated to cities in search of improved access to incomes. Probably the most important labour market consequence of this has been the rapid growth in the informal sector in urban areas around the region. We turn to the data in Table 8, which elucidates these trends.

Table 8: Urban Informal sector Employment as percentage of Total Urban Employment: Selected African Countries

Country	Year of Survey	Total	Male	Female
Benin	1992	47.9	52.5	41.4
Botswana	1996	19.3	12.3	27.6
Cameroon	1993	57.3	…	…
Cote d'Ivoire	1996	52.7	37.3	73.3
aEthiopia	1996	33.0	19.3	53.4
Gambia	1993	72.4	66.1	82.7
Ghana	1997	78.5	…	…
Kenya	1995	58.1	…	…
Madagascar	1995	57.5	…	…
Mali	1996	71.0	…	…
Mauritius	1992	24.0	…	…
Morocco	1988	28.2	…	…
South Africa	1995	17.4	11.1	26.4
Tanzania	1995	67.0	59.7	85.3
Tunisia	1981	38.6	…	…
Uganda	1993	83.7	67.6	80.5
Zambia	1993	80.7	…	…

Source: ILO (2000)

The data as is evident is drawn from a variety of different surveys undertaken principally during the 1990s in the different SSA countries. In only 6 of the 17 countries sampled here do we find that informal employment is a modest share of total urban employment. At the bottom end in these 6 countries, the range is from 17 percent in South Africa to 39 percent in Tunisia – informal employment as a share of total urban employment. In the large majority of cases however, the informal sector dominates as the form of employment found in urban Sub-Saharan Africa. In countries such as Mali, Uganda and Zambia, over 70 percent of urban workers are informally employed. Note also that in a number of the countries sampled, the percentage of women in informal employment is large and in many cases women are dominant in the sector.

While these facts do bring with them issues relating to job security, poor conditions of work and so on, they do reflect one key aspect concerning SSA labour markets: that the formal sector has been unable over an extended period of time to create long-term sustainable employment for urban workers. From a policy perspective, this suggests that not only should energy be placed into improving productivity, worker safety and wage levels in these smaller enterprises, but also, and perhaps more importantly, policies need to be put into place that would significantly improve the ability of the formal sector to absorb large numbers of the urban labour force into long-term employment. These are policies that essentially lie outside the domain of labour market programmes, given that labour demand is essentially a derived demand for labour - that is a demand dependent on the nature of growth in output markets. These concerns though are certainly not outside the domain of labour market policy makers. It is therefore incumbent upon all agencies engaged with SSA labour market issues, that discussions around investment incentives, the structure of domestic production, financial markets and so on – are all subject to scrutiny that would ensure that the real economy is functioning in a manner that is conducive to employment expansion.

The concern around either ensuring the smooth functioning of the informal economy in SSA or the growth in urban formal employment, should not however detract from a critical consideration: that the region's population, poor individuals and households and, most critically, the concentration of productive activities continues to lie overwhelmingly in rural areas. This fact is more powerfully displayed in the data set out in Table 9, which provides labour force shares for selected African countries by main sector of economic activity. The table thus indicates that for the region as a whole, by 1990, 68 percent of its labour force were either working or looking for work (by the strict definition of unemployment) in Agriculture.[6] Notably, this figure had declined since 1970, albeit by a fairly small margin of 10 percentage points. This statistic, more perhaps than any other, illustrates the development challenge facing the region.

---

6   This is clearly an unusual way of presenting sectoral labour market data. It is also not clear how information on the sector of preference for the unemployed was derived. See World Bank (2002b:267-8) for further details.

Table 9: Share of Labour Force by Main Economic Sector

Sector	Year	Sub-Saharan Africa	SSA excluding South Africa	SSA excl. S.Africa & Nigeria
Agriculture	1970	78	82	84
	1980	72	75	80
	1990	68	71	77
Industry	1970	8	6	6
	1980	9	7	7
	1990	9	7	7
Services	1970	14	12	10
	1980	20	18	13
	1990	24	22	16

Source: World Bank (2002b)

Of course the region is uneven in its development and this is shown by the fact that if South Africa and Nigeria are excluded from the figures, the share of the labour force in Agriculture increases from 68 to 77 percent. In many countries, the dominance of informal sector employment and in the formal sector, of civil service employment, is reflected in the 1990 data that shows close to a quarter of the labour force in the services sector. While in a number of other developing and most of the developed world, the services sector growth is a function of the rapid rise in ICTs and linked to this the financial services industries – this is not the case for SSA. Instead, the growth in the sector by and large represents a bloated civil service together with the growth in petty informal trading amongst the fast-growing urban population in the region. Noticeably, and in contrast to all other regions of the world, the share of the labour force in the secondary industries is extremely low. In the sections that follow we turn to how these sectoral employment shares match up against sectoral contributions to GDP.

The data on labour force by main sector reinforces the concern expressed above, that rural-based employment and labour market initiatives may be overlooked in the haste to concentrate on urban-based activity only. The primary form of participation in the labour market being rural-based, is a strong indication that the challenge for the region is in large part around uplifting, growing and developing the immensely poor agrarian base. Minimal resources dedicated to improving the performance of agriculture in these countries is more than likely to yield minimal returns in terms of poverty alleviation, inequality reduction and of course employment expansion. This is not to say that employment expansion will alone occur in rural areas. On the contrary an improved performance in agriculture is likely to contribute to breaking household poverty traps. This in turn could free up resources for asset accumulation, which could release more productive individuals into urban labour markets. In this sense the region's challenge is not simply an employment challenge, but rather more generically a regional economic development challenge that should start out by trying to target those indigent households who have for a number of decades been unable to extricate themselves from the cycle of poverty.

Conclusion

The above has made it clear that apart from levels of poverty and inequality that are inordinately high in SSA, the region is also beset with perhaps the more worrying problem of accounting for almost all of the world's ultra-poor: namely those individuals living on less than half of the standard $1 a day poverty line. The large discrepancies in the poverty gap and squared poverty gap estimates relative to other developing country regions, serve to confirm this fact. In addition though, and perhaps more worrying, it is clear that both the level and nature of economic growth in SSA are not conducive to poverty reduction. The region's growth path is clearly not as pro-poor as that found, for example, in East Asia & the Pacific. Furthermore, the diluting effect of income redistribution through growth, suggests that much higher levels of income growth are required to maximise the impact on absolute and relative poverty levels in the region.

While the labour market data is far from optimal the second section of the paper alluded to the rapid projected growth of the labour force in the region, hence further raising the importance of improving the character and level of growth rates on the continent. Within this environment however, there was the twin challenge of dealing with rapid urbanisation which increases the pressure for urban employment on the one hand, and then formulating appropriate interventions to grow Agriculture, where the majority of the region's population continue to be employed. Ultimately this caricature of a region where the dominant form of employment remains rural-based and at low skill levels, combined with burgeoning, but haphazard urban informal employment – is the underlying labour market descriptor of the welfare challenges faced by the continent.

References

African Development Bank (1999) *African Development Report 1999.* Oxford: Oxford University Press

———- (2002) *African Development Report 2002.* Oxford: Oxford University Press

Datt,G & M. Ravallion (2002) *Is India's Economic Growth Leaving the Poor Behind?* World Bank: Washington DC.

Deninger,K and L.Squire (1996) A New Data Set Measuring Income Inequality, *The World Bank Economic Review,* Vol. 10(3).

Dollar,D & A.Kraay (2000) *Growth is Good for the Poor*. World Bank: Washington DC.

Glick, P., and D. Sahn (2000) Schooling of Girls and Boys in a West African Country: the Effects of Parental Education, Income, and Household Structure. *Economics of Education Review*. Vol. 19(1).

International Labour Office (1999) *Key Indicators of the Labour Market 1999.* Geneva: The International Labour Office

International Labour Office (2000) *World Labour Report* . Geneva: The International Labour Office.

Kakwani,N (1993) Poverty and Economic Growth with Application to Côte d'Ivoire. *Review of Income and Wealth.* 39(2).

Ravallion,M (2001) Growth, Inequality and Poverty: Looking Beyond the Averages. *World Development*. Vol. 29, No. 11.

Ravallion,M (2004) Pro-Poor Growth: A Primer. *World Bank Policy Resaerch Working Paper*. No. 3242. World Bank: Washington DC.

Ravallion,M & S.Chen (2004) *Measuring pro-poor Growth.* World Bank: Washington DC.

Sahn, DE. and Stifel, DC. (2002) *Urban-Rural Inequality in Africa* .Prepared for the Cornell/LSE/WIDER Conference on Spatial Inequality in Africa Center for the Study of African Economies at the University of Oxford.

World Bank (1997). *African Development Indicators 1997*. Washington DC: The World Bank

———- (2002a). *World Development Indicators 2002*. Washington DC: The World Bank

———- (2001). *African Development Indicators 2001*. Washington DC: The World Bank

———— (2002b) *African Development Indicators 2002*. Washington DC: The World Bank

———- (2001a). Attacking Poverty with a three-pronged strategy. *World Bank Policy Research Bulletin* 11 (4) & 12(1), Washington DC: The World Bank

———— (2004) *PovcalNet* . The World Bank Group. http://iresearch.worldbank.org/PovcalNet/jsp/index.jsp

Appendix

Table A1: Headcount and Poverty Gap Estimates, by Select African Country, 2001

Country	H(%)	PG(%)	Weighted Po	Shares of poverty
Central African Rep.	64.41	38.13	0.33	0.01
Ethiopia	22.98	4.82	5.82	0.13
Ghana	47.46	18.72	1.74	0.04
Mali	64.25	30.42	0.98	0.02
Niger	64.71	36.83	0.99	0.02
Nigeria	69.91	34.66	11.48	0.25
Sierra Leone	65.72	47.06	0.45	0.01
Uganda	84.31	44.85	2.01	0.04
Tanzania	50.45	25.72	3.05	0.07
Zambia	63.32	32.42	0.91	0.02
SSA	**46.38**	20.53	46.38	1.00

Source: World Bank, 2004 and author's own calculations

1.   Data is based on a variety of different surveys across the different countries, with the country coverage within the years varying across the regions. The measure for all countries is consumption expenditure.

2.   Poverty line is set at 32.74 per month at 1993 PPP, which is the $1 a day line. See Chen & Ravallion (2001) for details on the derivation of the line.

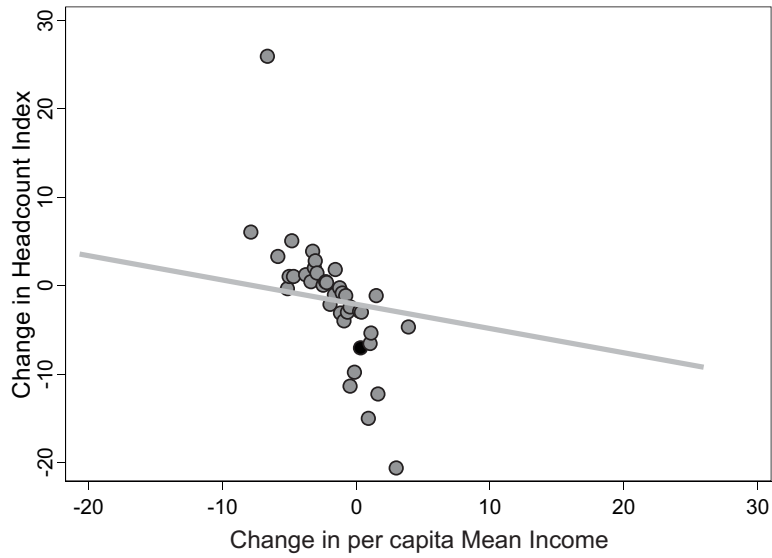**Figure A1: Per capita Mean Income & Headcount Index: SSA**

Figure A2: Per capita Mean Income & Poverty Gap Index: SSA