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CONTENTS



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# Growth, Poverty and Inequality in Mauritius and South Africa

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## 1 – Introduction

The recent years have witnessed an increasingly strong interest in the impact of economic growth on poverty. An important reason for this has been the establishment of the Millennium Development Goals, which have set poverty reduction as a fundamental objective of development. Using two household survey data separated by 5 and 10-year intervals, we are able to conduct a pro-poor growth analysis in Mauritius over the period 2001-2006 and in South Africa over the period 1995-2005. The poverty line is set at a reference threshold of USD 3 per day to reflect Mauritius' and South Africa's status of middle-income countries, and sensitivity tests are performed to check for the robustness of results.

Addressing whether growth is pro-poor first requires clarifying the concept of pro-poorness, which is usually related to the idea that the poor "get more from growth than some predefined benchmark". This has generated considerable debate in the scientific and policy community. Both a relative and an absolute approach have been proposed to defined growth pro-poorness. In the absolute approach, growth is defined as pro-poor if it reduces absolute poverty. In the relative approach, growth is pro-poor if it reduces inequality and relative poverty, meaning that growth must benefit the poor proportionately more than the non-poor. Although the most frequently advocated manner to achieve absolute poverty reduction is through economic growth, whether growth can be deemed to be "pro-poor" can thus depend on the impact of growth on inequality and on how much this impact on inequality feeds into poverty – see among many others Bourguignon (2003), Bruno, Ravallion and Squire (1998), Dollar and Kraay (2002), Eastwood and Lipton (2001), Ravallion (2001), United Nations (2000), and World Bank (2002). We will consider below the impact of growth both on absolute poverty and on inequality.

Methodology and data are further explained in Duclos and Verdier-Chouchane (2010). We use the FGT class of poverty indices (Foster, Greer and Thorbecke, 1984) to measure poverty incidence and intensity, growth incidence curves (Ravallion and Chen, 2003) to show the growth rates of income over different parts of the population, and Gini indices and Lorenz curves to assess inequality. Growth-redistribution decompositions and indices of pro-poorness also enable to evaluate the recent effects of growth and inequality on poverty in Mauritius and South Africa. A major finding is that Mauritius and South Africa have experienced very different effects of growth on poverty and inequality, and this is suggestive of policy recommendations towards reducing poverty and inequality. Section 2 presents the results

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of the case studies for Mauritius and South Africa and section 3 concludes with some policy recommendations based on the findings.

## 2 – Case Studies of Mauritius and South Africa

### 2.1 – Overview of poverty reduction strategies in the two countries

Mauritius' poverty reduction strategy has been to expand employment opportunities and modernize its economy, while maintaining an elaborate social safety net. It has been hoped that what remains of extreme poverty after several decades of strong economic growth would be alleviated by skills acquisition programs for unskilled and uneducated individuals and nutritional and medical assistance for the others. Mauritius has also had a policy of allocating significant public resources to education and health. Adult literacy and life expectancy are well above the sub-Saharan African average. Health care is free and health facilities are of reasonably good quality and accessibility throughout the country. The benefits of Mauritius's educational system have also become more universally distributed in the last 15 years, with a move away from a strongly elitist system to one with greater accessibility to secondary and higher education.

In South Africa, to accelerate growth and share more evenly its benefits, government initiatives to meet these challenges have taken various forms. In 1996, the government's plan to alleviate poverty relied prominently on a market-based approach to foster growth and create jobs. Trade liberalization has in particular been at the forefront of the country's post-Apartheid economic strategy, reflecting a commitment to outward-stimulated development. Government has also tried to boost productivity, long-run employment and growth through privatisation, despite short-term costs. More recent official policy has tried to reorient government spending to fight deprivation in areas such as access to improved health care and quality education, provision of decent work, sustainability of livelihoods, and development of economic and social infrastructure. While significant achievements have already been made, improvement in service delivery remains a priority in South Africa. The quality of health care and education is extremely heterogeneous across provinces. The gap between disadvantaged (black) and advantaged (white) persists. A further problem is that most urban black South Africans are highly concentrated in suburban townships, far from economic opportunities; high transport costs and crime inhibit job searching in townships.

### 2.2 – Analysis of poverty incidence[1]

Mauritius started with a relatively low level of national poverty in comparison to other African countries. Its development process of moving from an economy based on agriculture to one increasingly oriented towards manufacturing, services and exports appears to provide part of the explanation for the fall in its national headcount rate at USD 3 from 5.8% in 2001 to 4.1% in 2006.

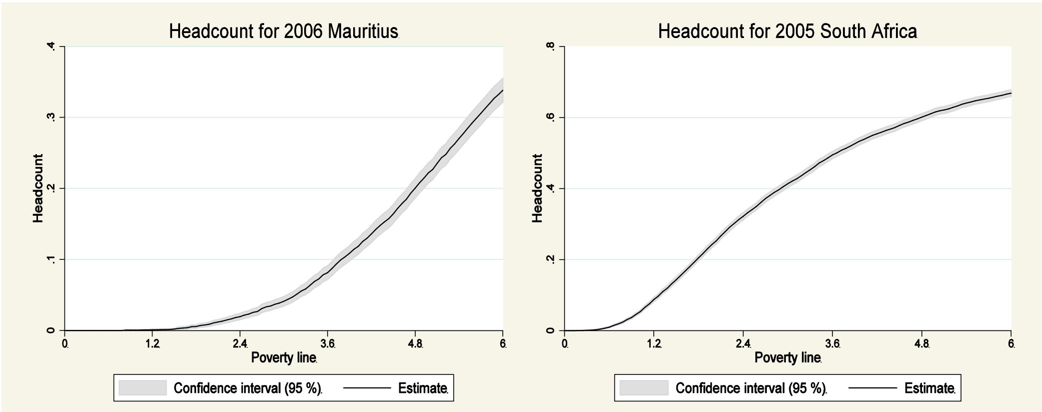
South Africa - Africa's most advanced economy - has grown rapidly since its 1994 democratic transition, with a real GDP growth of about 4% per annum over the last 15 years. It has also gone through a rapid opening to the rest of the world, with increased diversity in exports and a decrease in the relative economic importance of traditional sectors such as mining. Given South Africa's relative affluence, it may seem surprising that 42% of its citizens lived between 1995 and 2005 on less than USD 3 per day. South Africa's relatively sophisticated formal economy still coexists with a large informal economy and near-subsistence agricultural sector, on which a substantial part of the population depends for a living. The country also suffers from the presence of large socio-economic inequalities in incomes and wealth. Most of the economic activity takes place around Gauteng and Western Cape. South Africa's pattern of economic development has also significantly affected the urban/rural distribution of poverty. Poverty alleviation policies must increasingly ponder issues of migration and rural/urban demographic pressure, as well as integration of the young and of urban migrants to labor markets.

Figure 1 show the sensitivity of the head-count to the choice of the poverty line. In Mauritius, the incidence of poverty below USD 2 a day is negligible. The headcount rises rapidly at poverty lines higher than USD 4, which also indicates that it is at this point that Mauritius' density of consumption starts being important. 35% of the population lives on less than USD 6 a day in 2006. South African pockets of poverty emerge at consumption levels as low as USD 0.5 a day. The incidence of poverty rises rapidly for poverty lines between USD 1 and USD 3. Sixty percent of the population lives with less that USD 5 a day.

The difference in headcount between the two years reveals that poverty headcount has declined significantly in Mauritius but not in South Africa.

[1] Further details on poverty incidence as well as poverty intensity analysis are available in Duclos, J-Y. and A. Verdier-Chouchane (2010).

Figure 1 - Sensitivity of the headcount to the choice of the poverty line

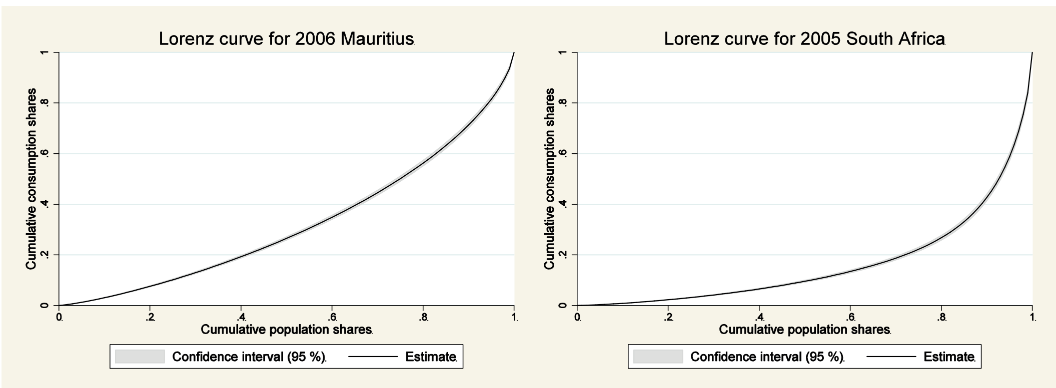



## 2.3 – Analysis of inequality

With a national Gini of around 0.36 in 2006, Mauritius' level of inequality is also relatively low in comparison to other African countries. In contrast, South Africa's national Gini of around 0.67 positions it in 2005 among the least equal countries in the world. Figures 2 shows the Lorenz curves for 2006 Mauritius and for 2005 South Africa. For Mauritius, it is indicative of a great degree of equality. The bottom half enjoys around 28% of total consumption, and the bottom 20% is responsible for around 8% of total consumption. On the contrary, South Africa displays a considerable degree of inequality. The bottom half enjoys little less than around 10% of total consumption; the top half enjoys around 90% of it. The bottom 10% has a negligible share of total consumption.

The difference in the two Lorenz curves indicates that Mauritius' Lorenz curve deteriorated slightly between 2001 and 2006. For a wide range of Mauritius' Lorenz curves, therefore, inequality has statistically worsened between 2001 and 2006. The same difference shows a significant increase in inequality in South Africa between 1995 and 2005. The bottom half of the population has lost around 2% of total national consumption to the top half. The top 10% of the population has seen its share in total consumption rise by 8% in only 10 years.

Figure 2 – Lorenz curves



## 2.4 – Growth redistribution decomposition

Table 1 decomposes the change in headcount poverty in terms of the effect of growth and of changes in inequality. In Mauritius, the headcount movement can be explained in large part by a growth effect. 1.9 percentage point of the 1.7 percentage point fall from 5.8% to 4.1% can indeed be attributed to a growth effect. The bottom half of Mauritius' population lost around 1% of total national consumption to the top half. This slight worsening of inequality was not, however, substantially detrimental to the effect of growth on poverty reduction. The fall in poverty between 2001 and 2006 would have been from 5.8% to 3.9% if inequality had remained unchanged. Hence, Mauritius's development in the early 2000s did roughly succeed in reducing poverty through growth and at a relatively modest poverty cost through an increase in inequality. In South Africa, the total change in poverty between 1995 and 2005 is neither numerically nor statistically significant. The effects of growth and redistribution on poverty have, however, been important (see Table 1). Growth reduced poverty by around nine percentage points. The increase in inequality increased poverty by roughly the same numerical value. Hence, both the growth and the redistribution effects have almost exactly cancelled each other. The headcount in 2005 would have been roughly 10 percentage points lower (from 42% to 33%) had it not been of the increase in inequality. Hence, poverty has changed little in South Africa between 1995 and 2005, but it is not to say that little else has changed: average consumption has increased substantially, but inequality has also risen importantly, and this has cancelled all of the positive poverty effects of growth.

## 2.5 – Pro-poorness analysis

In Mauritius, the three indices of absolute pro-poorness indicate that the change from 2001 to 2006 has decreased absolute poverty (see Duclos and Verdier-Chouchane, 2010). Conversely, from a relative perspective, the significant growth in Mauritius' living standards between 2001 and 2006 has not been sufficiently pro-poor for that to be empirically validated. For South Africa, there is little evidence that growth has been absolutely pro-poor in South Africa between 1995 and 2005. It implies that the growth rates of the poor's incomes have not been high enough to follow the growth rate in average income. From a relative perspective, the significant growth in South Africa's average living standards between 1995 and 2005 has been relatively anti-poor, since it has decreased significantly the poor's relative shares in total consumption.

## 3 – Policy Conclusions and Implications for the Bank

Our results are suggestive of several ways through which growth can lead to poverty alleviation and greater inclusiveness. They also provide some guidance as to the type of policies that can increase the pro-poorness of growth. The two countries have moved progressively over the last decades – through policies and structural change – from economies based largely on agriculture and primary sectors of activity to economies increasingly based on manufacturing, services, exports and tourism. In both Mauritius and South Africa, privatization and trade liberalization were promoted as policies to spur growth. However, policy choices in the two countries have been different in terms of employment opportunities and human capital development. While Mauritius has focused its poverty reduction strategy on education and health services and has targeted the most vulnerable segment of the population through improved social safety nets, South Africa's policy focus has shifted to fighting deprivation more recently. It has not succeeded yet in developing skills and providing quality health care and education services across the entire country. The results in terms of growth pro-poorness have been quite different. South Africa's promotion of market-based growth and job creation has had mixed results: it has not been absolutely pro-poor between 1995 and 2005, and it has been anti-poor relatively speaking, improving living standards only among the top third of the population. The increase in domestic demand for housing and services and the rise in manufacturing and private investments have not integrated sufficiently the poorer South Africans (and the urban migrants in particular) into productive labor markets. Because of this, South Africa's pattern of economic development between 1995 and 2005 appears to have failed to generate a pattern of inclusive development. South Africa's growth benefitted almost exclusively the higher earners in urban areas. Rural workers gained very little from it, and the unskilled and lower urban earners often lost from it.

**Table 1 - Growth redistribution decomposition of headcount change**

| | Mauritius (2001-2006) | South Africa (1995-2005) |
|---|---|---|
| Growth | -1.9 | -9.3 |
| Inequality | +0.2 | +8.6 |
| Total Effect | -1.7 | -0.7 |

In the two countries, there are important development disparities across rural and urban areas. Poverty is initially larger in rural than in urban areas; it is substantially more so in South Africa. South Africa's recent pattern of economic development has also affected the urban/rural balance. The rural population share has fallen significantly from 52% to 41% in ten years, a change that can be attributed essentially to migration from rural to urban areas. Though rural poverty has remained unchanged, the incidence of urban poverty has registered an important increase from 21% to 26%. The proportion of South Africa's poor living in urban areas has risen from less than a quarter to almost two-fifths. Again, this is indicative of an important trend towards an urbanization of poverty in South Africa. Migration from rural to urban areas has been associated with difficulties of the urban migrants to take full part in urban labor markets and benefit from the urban growth that is evident in the data. Hence, although poverty is still by and large more rural than urban, the evidence suggests that policy should increasingly be tilted by the fact that poverty is becoming more urban. That will mean inter alia that policy will want to alleviate the effect of migration and rural/urban demographic pressure on urban poverty. There are several ways in which this can be done. One of them is through better social integration of rural migrants into their new urban setting. Another one is through better-functioning and more open labor markets. Another one is through the provision of training and educational services that would enable rural migrants to participate better in labor markets and partake in the fruits of urban growth, as opposed to being left out and increasing urban inequality.

A critical insight that emerges is the role of labor markets in transforming growth into poverty alleviation and in spreading its impact in an inclusive manner. Mauritius' development in the early 2000's has led to improved employment opportunities and labor market conditions for its relatively large skilled and educated population work force; it has apparently not, however, succeeded in providing such increased opportunities to its unskilled population. Poverty was greater in 2001 among uneducated households; despite absolute growth pro-poorness at the national level, poverty had remained unchanged between 2001 and 2006 among uneducated households. Mauritius' pattern of export-based development oriented towards manufacturing, services and exports may not therefore have benefitted much the lower-skilled individuals. For development to benefit also the educated poor, pursuing a policy that addresses the issue of social and economic exclusion of urban and skilled unemployed – especially among the young – is of great importance. Barriers to labor mobility as well as barriers that prevent individuals to take advantage of economic opportunities must be removed. This would make it easier for the young and the newly educated to acquire experience and find employment. It would also make growth more inclusive. In short, removing labor market imperfections and barriers to employment would enhance equality of labor market opportunities and access to good wages. In South Africa, informal employment mainly entails subsistence-level activities accomplished by rural-to-urban migrants who have been unable to enter into the modern urban labor markets. This phenomenon provides short-term support to poor households. However, in the longer term, such segmentation of the labor market can seriously challenge South Africa's economic development and poverty reduction strategy. Policies to better integrate and link informal with formal labor by encouraging informal firms to register and formalize their activities would not only reduce informal employment, but they could also boost long-term economic development.

The poverty headcount is almost always considerably larger among the uneducated than among the educated population. In Mauritius and South Africa, the educated population has also been able to benefit relatively more from growth. It thus strikes as immediately obvious that the design of growth strategies should incorporate policies to foster education and training. That will not only help achieve growth, but also make that growth more absolutely pro-poor as well as more inclusive. With regards to women, incidence of poverty is greatest among individuals who live in female-headed households in Mauritius and in South Africa. In these countries, policies to foster the participation of women in education and in the labor force can make a significant difference in the distribution of family income and welfare. Empowering women can be one of the most effective drivers of development.

Mauritius's development in the early 2000s succeeded in reducing poverty through growth, and at roughly no cost in terms of inequality. The growth experience of Mauritius thus suggests that growth can be absolutely pro-poor without being relatively anti-poor. One of most striking results is the fact that the country with the strongest experience of positive growth has achieved the least fall in poverty. South Africa's inequality, already in 1995 one of the highest in the world, was increased considerably by growth. The bottom half of the population, who enjoyed in 1995 around 10% of total consumption, lost 2% of it to the top half. Inequality-neutral growth would have reduced poverty by 9%; instead, growth was accompanied by an increase in inequality that increased poverty by roughly 9%. The pro-poorness of growth can therefore be quite heterogeneous across countries. If poverty reduction is the overriding objective, then policies designed to spur growth must take into account the possible impact of growth on inequality.

Implications for the African Development Bank (AfDB) are important, especially for its strategy in middle-income countries[2]. As demonstrated in the study but also recently in Egypt and Tunisia, good macroeconomic performances are not guarantor of reduced poverty levels and inequality. Growth which is not accompanied by an inclusive development can lead to social instability and revolutions. In other words, development partners should make sure that growth involves: (i) a low rate of youth unemployment; (ii) reduced levels of poverty; (iii) low disparity in income distribution; and (iv) enhanced voice, accountability and transparency. The Bank should first generate knowledge and provide technical assistance in the key areas of labor market and pro-poor growth analysis. This knowledge is the first step before understanding the phenomenon and the key mechanisms, and defining adequate inclusive growth strategy. The Bank also has to disseminate this knowledge in order to make the country own the development strategy. In its operational side, the Bank has focused on addressing the bottlenecks of growth by investing in infrastructure development, economic and political governance, private sector development and higher education, science and technology. However, as indicated in African Development Bank (2011), there is a need to rethink its strategy towards investing in economic and social inclusion such as social protection and cash transfer programs, in clean energy and climate change adaptation and in innovative financial products to support national expenditure on inclusive growth.

[2] Egypt, Mauritius, South Africa and Tunisia are some of the African middle-income countries.

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