Gaps in Research on the South African Income Distribution

Background
In June of 2012, the Southern Africa Labour and Development Research Unit (SALDRU) at the University of Cape Town entered into a contract with the National Treasury to conduct a three year project that would encourage mutually beneficial research between the academic and policy making communities. The project aims to develop a national network of researchers, with financial assistance for both academic researchers and their graduate students. There are three focus areas: Employment/Unemployment, Income Distribution and Inclusive Growth, which are being coordinated by Prof. Frederick Fourie (UFS), Prof. Murray Leibbrandt (SALDRU/UCT) and Prof. Haroon Bhorat (DPRU/UCT) respectively.

It is clear that the three focus areas are strongly inter-related, and that there exists considerable overlap between them. The objective of this document is thus to provide a framework that will help to guide researchers on the types of questions that fall under the Income Distribution focus area. The document follows from a workshop held at UCT on the 17th of March 2013, at which researchers from several universities and government departments presented their recent and ongoing work on issues relating to income inequality and the distribution of income in South Africa.

We start by summarising key topics on which work is already underway, and then proceed to articulate relevant gaps in the current state of our knowledge that were identified at the meeting. Neither the summary nor the identification of the gaps is exhaustive; not everyone working in this area was present at the workshop and time constraints precluded in-depth discussion of some important issues. To this end, we welcome further input on relevant omissions.

Facilitating the Filling of Research Gaps through Addressing Data Gaps
A core component of the work in this focus area is to fill data gaps that will, in turn, enable researchers to fill research gaps. In this regard, we have already launched a number of data infrastructure projects that will result in new data becoming available to the research community.

These are:
- Work is being done by DataFirst on imputing values in various OHS/LFS surveys, harmonising earnings measures over time across the various national cross-sectional datasets, and creating a comparable time series of these cross sectional datasets.
• SARS is working on the infrastructure required for researchers to obtain managed access to tax data that will allow for more complete estimations of the distribution of income in South Africa.
• Work is being done by the DPRU to prepare, align, and combine the various IES datasets into a single, unified and updated dataset that is harmonised for comparison over time.

**Income Distribution Gaps**

Broadly speaking, the research in the income distribution area can be classified under three inter-related categories. These are methodology and measurement, causes and consequences of income inequality, and the impact of policy on the distribution of income\(^1\).

1. **Methodology and Measurement of the Distribution of Income**

There is already a fairly substantial literature on measuring income inequality in South Africa, with the most commonly estimated measure used being the Gini coefficient. Other measures include simple percentile ratios (90/10 for example) and the decomposable Theil coefficients.

Issues that have been explored, and remain active research fields, include trends in inequality, data quality implications, and various types of imputation methods. One of the findings has been that inequality in South Africa either remained constant or increased since 2000.

Some of the gaps under this heading include:

- By how much do our measures of income inequality change when we include tax data as a complement to our existing survey data?
- How sensitive are our measures to the inclusion of high income values that are not well measured in our cross-sectional data?
- How sensitive are our income inequality estimates to lifetime income as compared to cross-sectional income?
- How high is social mobility and does this have a relationship to the distribution of income?
- What are the trends in the distribution of income if we include non-monetary benefits in our calculation? How do these compare with trends in the more conventional measures of the distribution of income?
- To what extent are trends in the South African income distribution comparable to international trends? Why do any such similarities or differences arise?

2. **Causes and Consequences of the Distribution of Income**

In this section we are concerned with the underlying mechanisms that give rise to the SA income distribution; as well as the effects of this distribution on various measures of individual welfare. The mechanisms that give rise to income inequality would include

\(^1\) For the purposes of this document, we use the terms “income distribution”, “the distribution of income” and “income inequality” interchangeably.
economic variables such as access to credit, human capital such as health and education, geographic segregation, social networks, labour market conditions, employment and unemployment, earnings, the inclusiveness of growth, peer effects, demographic choices such as fertility, household formation and the decision to migrate, and political and policy decisions. Measures of welfare could include economic dimensions such as consumption and assets, psychological measures such as subjective wellbeing and stress, and physical dimensions such as crime and the ability to perform one’s daily activities adequately.

On an aggregate level, there are also general equilibrium effects that could arise due to high levels of income inequality. For example, the high inequality combined with a relatively small number of highly resourced schools might exclude many learners from adequately resourced schools. This in turn might lead to an inefficient underinvestment in human capital for the economy as a whole.

Researchers have already explored some of these issues. For example, we know, based on decompositions of the income distribution, that a large fraction of observed individual income inequality can be attributed to earnings inequality, i.e. unemployment and wages. The data also suggest that returns to education are very high, especially at the tertiary level, and that the majority of poorer people either do not complete secondary school or do not do sufficiently well in their matric exams to enable them to attend universities.

Within this topic there are many important questions that remain unanswered or under-explored:

- What factors have driven changes in the South African income distribution over the post-apartheid period? By how much is the overall distribution of income affected by the various components of income such as returns on assets, government taxes and transfers and labour market earnings?
- What is the relationship between poverty changes and income distribution changes?
- How do demographic processes such as household formation, migration and fertility affect the income distribution?
- What are the effects of schooling, and in particular, the dualistic structure of the SA school system, in perpetuating earnings inequality at both the individual and household levels?
- How do savings rates and assets differ by income groups? Through what pathways do these affect the distribution of incomes?
- Does the distribution of income affect stress levels and subjective well-being?
- How do inequality in income and inequality in health relate?
- What are the costs and availability of credit to different income groups? Does their behaviour differ in important ways in terms of how they manage risks and make financial decisions?

3. The Impact of Policy on the Distribution of Income

One of the areas of interest in this project relate to the effects of fiscal policy on the income distribution in SA. This applies to both the revenues side as well as the expenditures side. One of the standard theoretical mechanisms that a government can use to reduce income
inequality is to tax high income individuals and redistribute to the poor. In South Africa, a progressive tax system is ostensibly in place as the marginal income tax rate is increasing in income. Moreover, South Africa has multiple means tested grants with millions of recipients, which are targeted at the poor. Nonetheless, existing research suggests that while the grants have an anti-poverty effect, they do not have a strong direct effect on the distribution of income.

Ongoing work, as part of the project, is to develop a micro-simulation model that can be used to evaluate the effects of various policies on the income distribution. This is part of a long term and large-scale collaborative effort between SARS, the National Treasury and academic researchers. The model will have a static dimension as well as a dynamic dimension. The former is essentially a tax-benefit calculator that will allow an assessment of the distributional impacts of changes in policy at a point in time, whereas the latter includes population characteristics to generate lifetime forecasts of the effects of policies for individuals.

Some of the remaining gaps in this topic are:

- What are average aggregate tax rates for different income groups, including taxes such as payroll taxes, VAT, UIF, capital gains taxes, taxes on dividends and fuel levies? In addition, how have these taxes been evolving in the recent past?
- A slightly different question relates to how these different income groups adapt to changes in the tax code. Are people with high incomes able to make better use of allowable deductions? Has the tax base broadened in the recent past? If so, what implications do these differences in behavioural responses have for the income distribution?
- Which income groups benefit the most from state funded social expenditures, such as expenditures on roads, infrastructure, schools and healthcare? How would accounting for these benefits change our estimates of the trends and levels of income inequality?
- A lot of work has been done on the direct effects of grant receipts in South Africa. For example, we know that household composition, child nutrition, labour supply, migration and schooling are all affected by the Old Age Pension. We know relatively less about the dynamic effects of these grants on the medium and longer-term evolution of the income distribution that occurs as a secondary effect as a result of these direct effects.
- What are the long-term effects of taxation policies on the income distribution? Taxation policy has the potential to affect savings, consumption, investments and bequests. These behaviours, in turn, can generate dynamic effects on how inequality will evolve over time. What are the likely consequences of a plausible set of policy changes with respect to the long run distribution of assets, human capital and income?