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A job in the informal sector reduces poverty about as much as a job in the formal sector

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In the aggregate, earnings from jobs in the informal sector play a small role in reducing national poverty rates, especially because there are relatively few informal-sector jobs. However, if we compare on a per-job basis, the poverty reduction associated with one informal-sector job is generally between 50 to 100% of the poverty reduction associated with one formal-sector job. Growth in the number of jobs in the informal sector would be a sensible component of any plan to reduce poverty.

Introduction

People often associate the informal sector with very low and insecure earnings and high levels of (working) poverty. There are good reasons for this. But such a view also distracts us from a different question: to what extent do earnings from the informal sector protect workers and their households from poverty?

In this article, we explore the extent to which earnings from informal-sector jobs meaningfully contribute to a reduction in poverty. We primarily use the popular and intuitive poverty-headcount ratio as our indicator of poverty. Our analysis shows that a job in the informal sector is nearly as effective as one in the formal sector job in reducing poverty. Yet, there are too few informal-sector jobs to substantially reduce national poverty rates. Growth in the number of jobs in the informal sector should be an important component of the government's strategy to reduce poverty.

Measuring both informal-sector employment and poverty reduction

Due, in part, to the way in which poverty and informal employment are conventionally viewed, there is no research on how informal-sector employment contributes to poverty reduction in South Africa. This is also because very few data sets have the necessary information to answer this question. One needs to find data in the same survey on earnings from the informal sector as well as on household poverty (i.e. household income or total household consumption). Despite the number of labour- or poverty-oriented data sets available, only a handful have both of these requirements. Even the National Income Dynamics Study (NIDS), the best data for this analysis in our view, has limitations. Yet, NIDS data allow us to calculate total household income (used to construct our poverty measures) and to separate earnings by a reasonable set of employment groupings – something most other commonly-used data sets such as the Quarterly Labour Force Survey (QLFS) or the General Household Survey (GHS) do not allow.

Relating poverty reduction to specific types of income

Using the NIDS data (2008 and 2012), we are able to identify various sources of labour income (formal-sector employment, informal-sector self-employment, informal wage-employment, casual employment, domestic work, and agricultural employment) for each household as well as various sources of non-labour income (social grant, investment, remittance, imputed rental and other income). The exact definitions are explained in detail in our REDI3x3 working paper (Cichello & Rogan 2017).[1]

The next challenge is to assess how each source of income contributes to poverty reduction. There are many conceptual and technical questions regarding the decomposition of decomposing poverty reduction. We use the Shapley decomposition approach to estimate how each type of income contributes to the reduction in aggregate poverty rates. This method offers a relatively intuitive estimate of the contribution of each source of income that is received by households to the reduction of poverty. It does so by comparing what the aggregate poverty levels *would have been without each of these income sources*.

[1] In NIDS, informal-sector wage employment cannot be distinguished clearly, since its data on 'informal wage-employment' include people who work in the formal sector but do not have employment contracts or benefits. We have added the criterion of 'non-payment of UIF contributions' to narrow this down to a group very close to informal-sector employees; see Cichello & Rogan (2017: 7). Casual employment also is a somewhat mixed category in terms of the distinction between working in the informal or formal sectors.

We do so in three stages. First we consider the impact of each income source on aggregate income and national poverty levels. The results demonstrate that not all income has the same impact on poverty. Therefore, we next consider the poverty-reducing effect of each source of income relative to its share in national income – its poverty-reducing effectiveness. Lastly, we consider the poverty impact of a typical job across the various types of employment.

Aggregate informal-sector income is too small to contribute much to overall national poverty reduction

The NIDS data show that income from formal jobs is of unparalleled importance to national income. Formal-sector employment earnings comprised 56.7% of the total per-capita income received by South African households in 2008. In comparison, informal self-employment (i.e. running an informal enterprise) comprised just 3.1%, informal wage-employment 2.4% and casual employment 2.2% of total per-capita income.

To identify the contribution of income sources to the reduction of poverty, we use the popular and intuitive poverty-headcount rate as our main indicator of poverty. The headcount rate shows the percentage of individuals that are above an official poverty line. We initially present our findings with regard to StatsSA's lowest national poverty line, i.e. R307 per month in 2010 prices. Using NIDS data for 2008 produces a national poverty headcount rate of 28.7%. Without any income, the poverty rate would be 100%. This means that all income sources combined have reduced the poverty rate by 71.3%.

Table 1 shows how much each source of income contributes to this reduction of the poverty headcount rate, according to our decomposition method. Not surprisingly, in the aggregate, formal-sector employment income is the single largest source of poverty reduction. Formal sector employment income alone accounts for a 26.9 percentage-point reduction in the headcount ratio, or a 37.7% share of all poverty reduction. In comparison, informal-sector self-employment and informal wage employment reduce poverty by just 2.5 and 3.1 percentage points respectively.

Table 1. Reduction in poverty headcount ratio by income source, 2008

Income source	Reduction in poverty
Formal sector employment	-26.9
Informal-sector self-employment	**-2.5**
Informal wage-employment	**-3.1**
Casual employment	-2.7
Social grant income	-14.7
Six other income sources	-21.3
Total	**-71.3**

Looking at it this way, the role of informal sector employment in reducing aggregate poverty rates seems quite limited. This limited overall impact is driven by the limited number of informal-sector jobs compared to formal-sector jobs – the informal sector comprises only about 16% of total employment in South Africa.

Not all income is created equal – at least when it comes to poverty reduction

Income from social grants is the other leading source of household income when it comes to aggregate poverty reduction. These transfers account for 20.7% of poverty reduction despite comprising just 6.6% of households' total income. The reason for this is that social grants are well targeted to households that would otherwise be below the poverty line. Thus the income from social grants is very effective in reducing household poverty.

Note that an income source's *share of income* and *share of poverty reduction* can differ quite a lot. This demonstrates that the impact of an additional rand on poverty reduction can vary widely across different income sources. To bring this relationship out more clearly, we calculate the *poverty-reducing effectiveness* of each income source by calculating the ratio between its share of poverty reduction and its share of income. The results are shown in table 2. Social grants have the highest ratio by far: 3.12 (as shown in the last column). Thus social-grant income reduces poverty by more than three times its share in total income, showing its high effectiveness, as one would expect.

Table 2. The poverty-reducing effectiveness of various income sources, 2008

Income source	Share of poverty reduction	Share of income	Poverty-effectiveness of income
Formal-sector employment	37.7	56.7	**0.66**
Informal-sector self-employment	3.6	3.1	**1.14**
Informal wage-employment	4.4	2.4	**1.86**
Casual employment	3.8	2.2	1.74
Social grant income	20.7	6.6	**3.12**
Six other income sources	29.9	29.0	1.03
Total	**100**	**100**	**1.00**

Formal-sector employment only has a 0.66 ratio. However, informal-sector self-employment and informal wage-employment have much higher ratios of 1.14 and 1.86 respectively.

- Thus, relative to income from formal-sector employment, *income from informal-sector employment is more potent in reducing poverty*.
- This is because households that receive informal-sector income are more often poor to begin with (as is the case with social grants). In contrast, much of the income from employment in the formal sector flows to households that are above any poverty line, therefore it doesn't affect poverty as much.

Our analysis also explored two additional poverty lines, i.e. R424 and R594. Generally, the poverty-reducing effectiveness of both informal-sector self-employment and informal wage-employment incomes remains similar – and well above that of formal-sector earnings across all poverty lines.

We also used three different measures of poverty. In addition to the poverty-headcount ratio (P_0), we use the poverty-gap index (P_1) and the squared poverty gap or severity of poverty index (P_2). The latter two measures place increasing importance on changes in income that occur far below the poverty line, whereas the poverty headcount ratio puts no value on such changes and simply shows whether a household is poor or not. Generally, our results show that the poverty-reducing effectiveness of income from social grants becomes more prominent for P_1 and P_2 measures as compared to the simple poverty headcount ratio (P_0). This is again intuitive. The P_1 and P_2 poverty measures place increasing emphasis on income that draws households closer to the poverty line even if they don't reach it outright. Well-targeted social-grant income which flows into poor households that continue to be below the poverty line will receive more weight in measuring poverty reduction when P_1 and P_2 are used.

Again, across all three poverty measures the poverty-reducing effectiveness of both informal-sector self-employment and informal wage-employment income remain generally similar *and* always well above that of formal-sector earnings.

The poverty effects *per job* gained or lost are crucial

We now turn our focus to the per-job effect on poverty rather than the aggregate effect, using 2012 NIDS data. The formal sector is by far the largest source of employment, with more than 10 million jobs in 2012 (see table 3). Formal-sector employment is also dominant with respect to the income it provides per job. Yet, due to the relatively low effectiveness of income from formal-sector employment in reducing poverty, as explained above, the poverty reduction *per job* from formal-sector employment is not exceptionally larger than the reduction from the other employment categories.

Table 3 shows the per-job poverty reduction for various categories of employment, relative to that of formal-sector employment. For example, in 2012 the per-job impact on poverty from self-employment in the informal-sector was approximately 63% of that of a formal-sector job (using the lowest poverty line). In other words, the loss of 100 jobs of self-employed people in the informal sector and the loss of 63 formal-sector jobs would have the same impact in terms of poverty reduction. Wage employment in the informal sector has an even higher relative poverty-reduction impact, at 81%.

Table 3. Per-job poverty reduction (for a poverty line of R307), 2012

Income source	Number of jobs	Per-job reduction in poverty relative to formal sector
Formal sector employment	10 400 000	
Informal self-employment	1 462 314	**63 %**
Informal wage-employment	1 185 124	**81 %**
Casual employment	1 358 512	54 %
Domestic work	923 511	85 %

For all three poverty lines and poverty measures in 2012, the per-job impact on poverty reduction, relative to formal jobs, ranges as follows:

- For informal-sector self-employment, the relative per-job impact on poverty reduction ranges from 48% (for P_0 at the R594 line) to 87% (for P_2 at R307 line).

- For informal wage-employment, the relative impact per job on poverty reduction ranges from 55% (for P_0 at the R594 line) to 107% (for P_2 at R307 line).

The key conclusion here, therefore, is that the importance of informal-sector self-employment and informal-sector wage-employment to poverty reduction is greater at the lowest poverty line – and particularly for workers who live in households that are furthest below the poverty line.

What are the policy implications? The importance of poverty effects

This particular finding is critically important for policymakers, since it demonstrates that, for the poorest households, the impact of earnings from informal-sector self- and wage-employment are almost as important as earnings from formal jobs, even though informal-sector earnings are low.[2]

What is a policy maker to make of all these results? If the policy maker were evaluating a possible policy that would eliminate 100 typical informal-enterprise operator jobs (i.e. informal self-employment), he or she should ask the following: 'Would I be willing to implement this policy if we were to lose 63 typical formal-sector jobs?' The reason is that the latter is the formal-sector equivalent, in terms of poverty-related importance, of 100 informal-sector self-employment jobs. (For 100 informal *wage*-employment jobs, the equivalent number is higher, i.e. 81 formal-sector jobs.)

Our analysis suggests that the poverty effects associated with these two scenarios would be similar. Obviously, poverty is not the only concern when considering such policies, but these results put the stark nature of the decision-making in perspective.

This analysis also applies to the poverty-reducing impact of a policy that would *add* 100 informal-sector self- or wage-employment jobs. Given these results, we believe that the potential poverty reduction from growing (or protecting) informal-sector jobs has been understated in policy discussions. While we long for the day when all South Africans can enjoy jobs with earnings levels well above the poverty line, we should not denigrate work that brings people with very low incomes closer to or just past the poverty line. While incomes are low and often unstable in large sections of the informal sector, the earnings from this work play a crucial and often unrecognised

[2] Whilst not the focus of this article, what should not go unnoticed is the equally powerful poverty-reducing effects of casual jobs and domestic work, as revealed in table 3. In terms of the broader poverty picture, domestic work is particularly important and deserving of the attention of policymakers.

role in protecting households from poverty. In addition, proper policy support to informal enterprises might help them grow in number and potentially in revenue and number of employees as well. Such changes could result in even greater reductions in poverty.

Reference

Cichello P & Rogan M. 2017. *Informal sector employment and poverty in South Africa: identifying the contribution of 'informal' sources of income on aggregate poverty measures*. REDI3x3 Working Paper 34. Available at: www.redi3x3.org/papers