Modelling Poor Farm-Household Livelihoods in Zimbabwe: Lessons for Pro-Poor Policy
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General Comments

The paper has merit in the way it has tackled a difficult problem in an interesting manner, drawing from the Malawi household model by Dorward. Broadly, the insights obtained conform to known lessons for pro-poor policies obtained using other methodologies. The application of the Malawi household model to Zimbabwe helps dig a little deeper in obtaining insights into how the different pro-poor strategies work in rural Zimbabwe.

Unfortunately, the paper lacks cohesion of the more technical and data aspects of the model mean that the distilled model results into pro-poor policies are left hanging in the air e.g. the motivation for the sensitivity tests, the relationship between the modelled rural economy on the rest of the economy.

Specific Comments

Executive Summary page ii:

The motivation or context of the exogenous increases in maize prices is not given, also the point in that paragraph relating to increases in maize prices giving limited benefits to households is not consistent with the paragraph below stating that increases in crop prices offer immediate and fairly broad benefits; Second last para has an almost incomprehensive sentence beginning "...While non-own-farm activities....". In the last three lines of the summary: what type of labour (unskilled, semi-skilled, skilled) is demanded by such growth – and where? This has implications for education and migration.

p1-2 Pro-poor policies

Some of the more general discussion of what others say about pro-poor policies in general and how they have been applied in Zimbabwe, well brought together in the Final Research Report, could usefully be drawn into the background for the paper

p3 section 3.1

The model has been applied before in Malawi. The Zimbabwe model could have gone into an appendix with verbal description in the text with elaboration of modifications to Malawi model.

p4., footnote 8

This is unclear – more detail is required.

p7 Table 31.

Surely this version of the table should be in an appendix, with an accessible summary version only in the text.

p8 Data discussion in model context.

The text discussion would be helped if the contrast between using the data sources to provide a base set of balanced accounts for the rural sector modelled, usually done in CGE modelling, and the patch-work of unbalanced and inconsistent data built here. It is because of the inconsistent base data that the model has to be used to iron out the worst of these inconsistencies. In Table 3.1 and the first paragraph on page 8 – to what extent is this detailed household typology based on analysis of (representative) household survey data?

p4. footnote 9

Compare to Timmer's model of seasonal marketing margins (Timmer, C.P., 1974, '*A model of rice marketing margins in Indonesia*', **Food Research Institute Studies**, 13(2)).

p8 section 3.2 para 1 and 2.

See comment on programming approach for Malawi model.

p10 Infeasibility.

Put differently, infeasibility leads to households not being able to grow or earn enough to survive, leads to migration, destitution or worse. These seem to be quite believable outcomes for poor households in Natural Regions 4 and 5.

p10 and Table 3.2

The inconsistent base data illustrated in the comparisons between Base and CSO crop production estimates. In a normal CGE model environment, such differences would appear as imbalances in the accounting estimates of the 'PRIOR' database, the inconsistent database assembled, and the CSO accounting estimates. Why was there no attempt to adjust the database using cross-entropy or some other adjustment method as commonly used for GE model databases (on cross-entropy methods of data adjustment, see S. Robinson and El-Said Moataz, "GAMS code for estimating a social accounting matrix (SAM) using cross entropy methods", TMDP58, IFPRI, Washington D.C.). *Comment also applies to Malawi model.*

p9 para 1 and para 3.

If the patchwork data are inconsistent, particularly on wages discussed in para 1, how can such authority be given to the on and off farm wage differentials in para 3? Also in paragraph 3, the other area the results demonstrate the model was failing to represent is the risk averse behaviour of households. Consider how your results might differ if a 'safety-first' or 'safety-fixed' model was used.

p11, footnote 20

In semi-arid agriculture, livestock frequently plays the role of a 'store of value' (c.f. Binswanger and McIntyre). Is it feasible to model this?

p.12, first three lines

This crude adjustment is very worrying. Incomes/expenditures will not be under-estimated uniformly across the distribution with serious implications for the measurement of poverty (and inequality).

p.12, Table 3.3

Are the model estimates only for communal households? What about the depth and severity of poverty (i.e. P_1 and P_2?). Is the 1990 rural poverty line calculated by World Bank 1995, the same as the $1/day line mentioned on page 2?

p.12, second to last paragraph

The best practice is to report the number of poor people (or adult equivalents) rather than households in poverty. Poor households tend to be larger than non-poor households, using households as the unit of analysis tends to understate poverty incidence.

p12 -20, section 3.4 Sensitivity Analysis,.

More use of Tables such as Table 3.4 and 3.5 would have been much better than the extensive reliance on bullet points.

Appendix A2: Data Sources

Appendix on data sources needed. *See comment on Malawi model*.