Relative Deprivation and Well-Being of the Rural Youths in an Agricultural Setting: Evidence from Panel

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The context

• **Africa**—the world’s youngest region
  – The median age of the population < 25 years
  – 70% live in rural areas and 75% <2USD

• **Ethiopian population: 102 million**
  – <14 (43%), 15-24 (21%), 25-64(33%), >64 (3%)
  – 80% of the population lives in rural areas
  – GDP: Agri: 41%, Indus:16%, service:43%

• **Paradoxical arguments related to youth** (Resnick and Thurlow, 2015):
  – Youths are “agents of change”
  – Youths are “a lost generation”
  – Youth are “future leaders”

• **To fight hunger, invest in youth** → demographic dividend

• The youths are not properly located in the development debate
Youth and quest for status

• **RD**: the discontent people feel when they compare their socio-economic status and realize that those others possess something that they do not have

• **RD theory**: household members undertake economic decisions not necessarily to increase the household’s or own absolute income but rather to improve the household’s or own position with respect to others in a specific reference groups

• **RD affects behaviours** (eg. Diversion of resources to positional goods) and performances (health, satisfaction)

• Can youth agriculture be a source of such stimuli for the youths?
Concepts and Definitions

• **Relative deprivation (RD):** household’s or youth’s relative standing (in terms of income, non-income and social status)

• **Reference groups:** relative to (compared with) whom?

• **Multidimensional RD:** Income, social capital, non-income

• **Youth:** 13-34 years
Why should we care about RD?


- A *measure of inequality*—an important policy target (Yitzhaki, 1979).
  - \[ TRD = (\sum_{i}^{n} wi) * G \]

- Helps to understand a number of factors related to life satisfaction/well-being: **“frustrated achievers” and “adaptation”** (Ferreri-i-Carbonell, 2005).

- Relative deprivation measures are consistent with large body of *scientific evidence* in public health, psychology, and economics (Deaton, 2001).
Pathways through which RD may affect youth well-being

• Persistent RD undermines the protective role of the biochemical system of stress response against a wide range of human diseases

• Rank, rather than money itself, may determine power and access to (exclusion) material goods. eg. Occupational choices

• RD affects health and happiness

• RD can fosters life satisfaction by prompting a stronger pursuit for status that in turn foster the accumulation of wealth or hard-work
Research Question and Hypothesis

• Research question:
  o Do relative concerns/deprivation matter for the well-being of youth (in the context of developing countries)?
  
    o If so, do they count enough to influence certain youth behaviour such as life satisfaction and occupational choices?

• Hypothesis:
  o An increase in individual relative deprivation (mainly relative income deprivation) prompts a stronger pursuit for status (income) that in turn fosters the accumulation of wealth and/or hard work, hence life satisfaction.
Methodology

• Conceptual framework

\[ U(i, h) = SWB(RD_i(Y_i, Y_j), SD_i(S_i, S_j), NID_i(NI_i, NI_j), Y_i, S_i, NI_i, X) \]

• Measurement: objective (Yitzhaki, 1979; Stark and Yitzhaki, 1988) and subjective (Runciman, 1966)

• Multidimensional RD: income, social, and non-income) (Sen, 1983; Runciman, 1966; Alpizar et al, 2005)
Estimation strategy

1. \( SWB^*_it = \beta \log (Y_{it,h}) + \alpha RGi_t + Z'_{it} \gamma + \sigma_k + u_{it} \)

2. \( SWB^*_it = \beta_{\text{absolute}} \log (Y_{it,h}) + \beta_{\text{relative}} \log (RD^r(Y_{it})) + \theta_{\text{absolute}} S_{it} + \theta_{\text{relative}} SD^r (Sit) + \delta_{\text{absolute}} NI_{it} + \delta_{\text{relative}} NID^r (it) + Z'_{it} \gamma + \sigma_k + u_{it} \)

Where:

\[ RD^r_i (Y_1, ..., Y_n) = \frac{1}{n} \sum_{j=i+1}^{n} (Y_j - Y_i) ; \]

\[ SD^r_i (S_1, ..., S_n) = \frac{1}{n} \sum_{j=i+1}^{n} (S_j - S_i) \text{ and} \]

\[ NID^r_i (NI_1, ..., NI_n) = \frac{1}{n} \sum_{j=i+1}^{n} (NI_j - NI_i); Y_j > Y_i \]
Data Source

- The Ethiopian Agricultural Growth Program (AGP) survey: 5 year
- Two rounds of survey: 2010/11 and 2014/15
- Youth: 13-34 years
- 1162 individuals from balanced panel of 521 hhs
Descriptive results

Income RD (ETB) vs Non-income and social RD

Socio-demographic reference groups
Geographical areas reference groups
Economic reference groups
Composed reference group

SWB across woredas

Density

Npn-income RD  Social RD
# Relevance of reference groups for the wellbeing of youth

## Random-effects ordered logistic regression model results (1)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>AGE</th>
<th>OCCUPATION</th>
<th>VILLAGE</th>
<th>WOREDA</th>
<th>SAME_ETHNIC</th>
<th>OTHER_ETHNIC</th>
<th>SAME_RELIGION</th>
<th>OTHER_RELIGION</th>
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<th>(0.202)</th>
<th>(0.205)</th>
<th>(0.100)</th>
<th>(0.0967)</th>
<th>(0.102)</th>
<th>(0.0981)</th>
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<tbody>
<tr>
<td>RG_IMPORT</td>
<td>0.570***</td>
<td>0.721**</td>
<td>0.184</td>
<td>-0.0687</td>
<td>0.311***</td>
<td>0.438***</td>
<td>0.362***</td>
<td>0.001</td>
<td>LogPCI</td>
<td>0.198***</td>
<td>0.175***</td>
<td>0.181***</td>
<td>0.214***</td>
<td>0.168***</td>
<td>0.173***</td>
<td>0.169***</td>
<td>0.183***</td>
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<td></td>
<td>(0.149)</td>
<td>(0.202)</td>
<td>(0.205)</td>
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<td>(0.0967)</td>
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</tbody>
</table>

| RG_IMPORT | 0.578*** | 0.344 | 0.658** | 0.049 | 0.561*** | 0.486*** | 0.504*** | 0.525*** | LogPCI | 0.279*** | 0.298*** | 0.309*** | 0.299*** | 0.286*** | 0.290*** | 0.297*** | 0.307*** |
|           | (0.188) | (0.279) | (0.275) | (0.133) | (0.125) | (0.128) | (0.128) | (0.127) |
| Observations | 743 | 743 | 743 | 743 | 743 | 743 | 743 | 743 |

| RG_IMPORT | 0.509* | 0.174 | -0.499 | -0.341* | 0.0309 | 0.342* | 0.167 | 0.284 | LogPCI | 0.0457 | 0.0721 | 0.0871 | 0.0888 | 0.0770 | 0.0757 | 0.0656 | 0.0799 |
|           | (0.303) | (0.332) | (0.359) | (0.191) | (0.170) | (0.189) | (0.173) | (0.185) |
| Observations | 419 | 419 | 419 | 419 | 419 | 419 | 419 | 419 |
## RD and SWB

Random-effects ordered logistic regression model results from objective measures (2)

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<td>AGE</td>
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<td>(0.306)</td>
<td>(0.312)</td>
<td>(0.316)</td>
<td>(0.307)</td>
<td>(0.290)</td>
<td>(0.317)</td>
<td>(0.316)</td>
<td>(0.00815)</td>
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<td>0.452**</td>
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<td>0.453**</td>
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<td>(0.190)</td>
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<tr>
<td>ETHNIC</td>
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<td>-0.269**</td>
<td>-0.190</td>
<td>-0.317**</td>
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<tr>
<td>(0.125)</td>
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<td>VILLAGE</td>
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<td>(0.210)</td>
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<td>LAND</td>
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<td>(0.178)</td>
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<td>(0.171)</td>
<td>(0.181)</td>
<td>(0.172)</td>
<td>(0.180)</td>
<td>(0.173)</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1
Conclusions

• Besides resource constraints and conditions of the labor market, RD matters for youth well-being and occupational choices

• The inadequacy of income based measures of relative deprivation

• We should take the argument for adopting a multidimensional approach to the measurement of poverty as well as wellbeing more seriously

• The magnitude of relative income deprivation suggests the important role of relative deprivation in the SWB of rural youth

• Living in high income neighbourhood enhances life satisfaction via signal effect or motivation while non-monetary deprivation in terms of material or social capital reduces life satisfaction
Policy implications

• **Inspire youth: how?**
  – Having rich neighbour (role model of your choice) results in positive externalities.
  – Introducing new technologies would result in positive spill-over and high adoption rates

• Improving social capital of the youth and agricultural related services enhances employment opportunities

• Improving the forward and backward linkages between agriculture and non-agriculture; raising agricultural productivity.

• Explicit consideration of the relatively highly deprived youth and improvement in public services.
Related pieces of research

• How do parents’ status concern affect offspring (the youths) well-being?

• To what extend does the different dimensions of RD affect the occupational choices of youth?

• Can raising agricultural productivity/labor productivity enhances youth participation?
Thank you for your attention

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Extra note

- It’s interesting to note that in the xtologit model the coefficient of RD2 (age) remain positive but insignificant while RD remain significant at 10%. Y remain positive while YY turns negative but insignificant. Using occupation as RG, RD turns strong sign RD2 sign at 12% (both positive), PCI positive and strong sign while YY negative and sign at 5%. With the composite occ_age RG, RD negative and RD2 positive but both insign, Y negative and YY2 positive and sign at 10%. Using OLS-FE and occup as RG, RD positive and sign at 5%, RD2 negative and insign, Y positive and YY2 negative both insignificant. However OLS-FE , results in RD negative and RD2 positive both sign at 5% while Y is negative and YY2 positive and both significant at 5%. The subgroup analysis is also the same for members but varies for youth household head. → implications for inequality.