Are staple foods becoming more expensive for urban consumers in eastern and southern Africa?

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World maize, wheat, and rice prices, nominal USD per metric ton

![Graph showing world maize, wheat, and rice prices](image)
The food price crisis & urban consumers

- Concerns about urban consumers (and net food buyers in general) in developing countries being priced out of the market
- Domestic food prices in many urban centers in eastern and southern Africa (ESA) have continued to rise into 2009

Lusaka retail maize grain and Maputo retail rice prices
Objectives

1. To determine if staple foods are becoming more/less expensive for urban consumers in ESA by tracking movements in retail staple food prices relative to wage rates
2. To compare staple food affordability at the height of the food price crisis to levels over the past 15 years

Outline

1. Background
2. Methods & data
3. Results
4. Conclusions
5. Next steps
Urban centers analyzed

Kenya: Nairobi
Mozambique: Maputo, Nampula
Zambia: Lusaka, Kitwe, Mansa

Why focus on maize, wheat, rice, and cassava?

<table>
<thead>
<tr>
<th>Urban center</th>
<th>Year</th>
<th>Maize</th>
<th>Wheat</th>
<th>Rice</th>
<th>Cassava</th>
<th>% share of total food budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi</td>
<td>2003</td>
<td>36</td>
<td>39</td>
<td>25</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Maputo Province</td>
<td>2002</td>
<td>9</td>
<td>57</td>
<td>29</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td>Northern Mozambique*</td>
<td>2002</td>
<td>33</td>
<td>8</td>
<td>15</td>
<td>44</td>
<td>48</td>
</tr>
<tr>
<td>Lusaka</td>
<td>2007/8</td>
<td>39</td>
<td>49</td>
<td>11</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Kitwe</td>
<td>2007/8</td>
<td>43</td>
<td>45</td>
<td>10</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>Mansa</td>
<td>2007/8</td>
<td>46</td>
<td>28</td>
<td>10</td>
<td>16</td>
<td>24</td>
</tr>
</tbody>
</table>

*includes Nampula city
Methods

1. Compute quantities of various staple foods affordable per average daily wage (wage/retail price), Jan. 1993/4 through Jan. 2009
2. Graph over time and look for trends*
3. Econometric tests for statistically significant trends

Data

• Monthly retail staple food prices from national statistical offices and market information systems

<table>
<thead>
<tr>
<th>Urban center</th>
<th>Retail staple food prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya: Nairobi</td>
<td>-Maize grain (wholesale), maize meal, bread (urban Kenya)</td>
</tr>
<tr>
<td>Zambia:</td>
<td></td>
</tr>
<tr>
<td>Lusaka</td>
<td>-Maize grain, breakfast meal, roller meal, bread</td>
</tr>
<tr>
<td>Kitwe</td>
<td>-Maize grain, breakfast meal, roller meal</td>
</tr>
<tr>
<td>Mansa</td>
<td>-Maize grain, breakfast meal, roller meal, cassava flour</td>
</tr>
<tr>
<td>Mozambique:</td>
<td></td>
</tr>
<tr>
<td>Maputo</td>
<td>-Maize grain, maize meal, wheat flour, rice</td>
</tr>
<tr>
<td>Nampula</td>
<td>-Maize grain, maize meal, wheat flour, rice, cassava flour</td>
</tr>
</tbody>
</table>
Data (cont.)

- **Wage data:**
  - Kenya & Zambia: average daily wage for formal sector workers (weighted average of private & public sector wages) (KCBS, ZCSO)
  - Mozambique: daily minimum wage for formal sector workers (GRM)

  ➔ **Caveat:** 2/3 to 3/4 of urban labor force is employed in the *informal* sector; conclusions based on analysis of formal sector wages may not hold for informal sector workers

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**Nairobi, Kenya:** Improved purchasing power for maize and bread until food price crisis
Nairobi, Kenya: Staple food affordability down in 08/09 marketing season but greater than 1994/5 – early/mid-2000s

Nairobi, Kenya: Similar trends for average public & average private sector wage series (ex: qty of maize grain/daily wage)
Lusaka, Zambia: Increases in maize and bread purchasing power until food price crisis

Lusaka, Zambia: Staple food affordability down in 08/09 marketing season but greater than 1994/5 – 2006/7
Lusaka, Zambia: Similar trends for various public and private sector wage series (ex: qty of maize grain/daily wage)

Kitwe, Zambia: Maize & maize meal affordable per daily wage down in 08/09 but greater than 1994/5-2005/6; similar to 06/07
**Mansa, Zambia:** Maize, maize meal, & cassava flour purchasing power in 08/09 greater than 1994/5-2006/7, 2007/8

**Lusaka, Nairobi, Maputo:** kg maize grain/daily wage
Lusaka, urban Kenya: loaves of bread/daily wage

Maputo, Mozambique: Some increases over time in quantities affordable per daily minimum wage; declines in wheat flour and rice affordability mid-2007 to 2009
**Maputo, Mozambique:** Affordability in 2008/9 marketing season similar to early 2000s

![Graph showing affordability over time](image)

**Nampula, Mozambique:** Rising cassava flour & rice purchasing power over time; decline in rice affordability since 2007

![Graph showing purchasing power over time](image)
Conclusions

1. Formal sector wages (average public & private sector) in Kenya and Zambia grew more rapidly than urban retail maize meal and bread prices from mid-1990s to 2007
   - Maize grain and maize meal quantities affordable per daily wage in 06/07 were 2-4 times greater than in 95/96
   - Bread 2.5 times more affordable in urban Kenya and Lusaka in 06/07 compared to 95/96
   - Food price crisis partially reversed trend but quantities affordable per daily wage in 2008/9 marketing season greater than in mid-1990s to early/mid-2000s

Conclusions (cont.)

2. Minimum wage earners in Maputo and Nampula saw some gains in the quantities of staple foods affordable per daily wage during period studied
   - Quantities affordable per daily wage in 06/07 were 2-4 times greater than in 95/96
   - Declines in purchasing power during food price crisis most evident for rice and wheat flour
Conclusions (cont.)

**CAVEAT:** Conclusions hold for formal sector workers with average earnings in Nairobi, Lusaka, Kitwe, and Mansa, and for minimum wage earners in Maputo and Nampula city.

- Formal sector employment and wages could decline as a result of the global economic crisis.

Next steps

- Examine trends in food prices relative to informal sector wages and informal business net income
  - Try to pull together time series from household surveys, other sources
- Domestic prices in several ESA countries at times went above import parity levels between 1994 and 2009
  - Simulate trends in staple food affordability if import parity had been maintained
Acknowledgement

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THANK YOU!

QUESTIONS?

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