Potential Food Security Impacts of Rising Commodity Prices in the Sahel

by
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Nango Dembélé
John Staatz

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Road Map

• Review of the current situation and drivers
• Overview of available policy tools
• Fine tuning monitoring and analysis tools to better respond to the situation
• Possible scenarios for May through December and appropriate short-term responses
• Linking the short-term emergency response to the medium-term development goals
• Summing up: Three Biggest Challenges
Current Situation

- Rising commodity prices worldwide
- Recent increases in GDP growth rates in W. Africa (generally 5-7% in 2005 & 2006)
- High poverty rates (45%<$1/day)
- Overall 2007/08 crop production good
- An inflationary context in the Sahel—led by food prices but not exclusively food based
- **The challenge**: To balance short-run responses to protect consumers from rising prices with longer-run development efforts

Key Drivers: World

- World market prices are:
  - rising unusually fast,
  - more volatile,
  - greater duration of rise
  - greater breadth of products
- Why?
  - Weather
  - Declining world cereal stocks
  - Changing consumer demand (meat, poultry, dairy)
  - Rising energy prices → increased biofuel demand & increased agricultural input costs
  - Expansion of derivative markets in ag commodities
  - Export restrictions in Asian countries
Key Drivers: Sahel

- Import-dependent countries
  - Production shortfalls
  - Export bans by neighbors
  - Rising import bills slowing down flow of cereal imports
  - Urbanization and changing consumption patterns

- Cereal-surplus countries
  - Localized production shortfalls
  - Strong demand and good prices for livestock
  - Cereal export bans
  - Speculation in response to uncertain policies
  - Urbanization and changing consumption patterns

- Nigeria
  - A giant by comparison to its Sahelian neighbors
  - Production shortfall in north
  - Strong demand for cereals by beer and poultry industries

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Sahelian Cereal Production

Source données: Pays CILSS - Réunion PREGEC, Mars 2000

CLSS/CRA, Avril 2008
Estimated cereal needs covered by domestic production

Terms of trade for Millet and Livestock: Niger

![Graph showing the terms of trade for Millet and Livestock in Niger for different categories of animals: Bulls, Cows, Bélier (Bull), Boucs (Buck), and Goats. The graph compares the number of 100 kg sacks of millet per animal for the first trimester of 2008, the last trimester of 2007, and the first trimester of 2007.](image)

Available Policy Tools: Price Reducing

<table>
<thead>
<tr>
<th>Tools (relevant criteria)</th>
<th>Evaluation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Tariffs/VAT (2-5)</td>
<td>1. Targets vulnerable</td>
</tr>
<tr>
<td>- Subsidies/rations</td>
<td>2. Preserves incentives</td>
</tr>
<tr>
<td>- Generalized (3, 4)</td>
<td>3. Costs contained</td>
</tr>
<tr>
<td>- Targeted (1-3)</td>
<td>4. Easy to implement</td>
</tr>
<tr>
<td>- Release stocks (2, 4)</td>
<td>5. Limited mgt/governance</td>
</tr>
<tr>
<td>- Export restrictions (4)</td>
<td>concerns</td>
</tr>
<tr>
<td>- Prod. price controls (0)</td>
<td></td>
</tr>
</tbody>
</table>
### Available Policy Tools: Safety Net

<table>
<thead>
<tr>
<th>Tools (relevant criteria)</th>
<th>Evaluation Criteria</th>
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<tbody>
<tr>
<td>• Targeted cash transfers (1-3, 5)</td>
<td>1. Targets vulnerable</td>
</tr>
<tr>
<td>• Food for work (1-3)</td>
<td>2. Preserves incentives</td>
</tr>
<tr>
<td>• Food aid (1, 3, 4)</td>
<td>3. Costs contained</td>
</tr>
<tr>
<td>• Feeding/nutrition program (2, 3)</td>
<td>4. Easy to implement</td>
</tr>
<tr>
<td></td>
<td>5. Limited mgt/governance concerns</td>
</tr>
</tbody>
</table>

### Responding with Improved Monitoring & Analysis

- Crop estimates
- Market prices and flows
- Stock data
- Changes in relative prices
- Exchange rates
- Government budgets, ForEx, credit
- Identifying vulnerable groups
  - Urban
  - Rural
- Short and medium-run market outlook forecasts
### Rice/Civil Servant Salary Index: Bamako

![Chart showing Rice/Civil Servant Salary Index](chart1.png)

### Rice/Millet Price Index: Bamako

![Chart showing Rice/Millet Price Index](chart2.png)

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### Producer Prices of Cotton: Burkina Faso and Mali

<table>
<thead>
<tr>
<th>Season</th>
<th>Burkina Nominal</th>
<th>Burkina Real*</th>
<th>Mali Nominal</th>
<th>Mali Real*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/05</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>210</td>
</tr>
<tr>
<td>2005/06</td>
<td>175</td>
<td>165</td>
<td>160</td>
<td>153</td>
</tr>
<tr>
<td>2006/07</td>
<td>165</td>
<td>158</td>
<td>165</td>
<td>154</td>
</tr>
<tr>
<td>2007/08</td>
<td>145</td>
<td>130</td>
<td>160</td>
<td>144</td>
</tr>
<tr>
<td>2008/09</td>
<td>165</td>
<td>not avail.</td>
<td>200</td>
<td>not avail.</td>
</tr>
</tbody>
</table>

* Base = 2005; using CPI for January of marketing year as defla
### Possible Scenarios

#### World Market Cereal Prices: May-December

<table>
<thead>
<tr>
<th>Rainfall &amp; Harvest Predictions</th>
<th>Declining</th>
<th>High or Increasing</th>
</tr>
</thead>
</table>
| Good                          | Net price impact  
Opportunities  
Dangers                      |           |                    |
| Bad                           |           |                    |

### Best-Case Scenario

#### World Market Cereal Prices: May-December

<table>
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<tr>
<th>Rainfall &amp; Harvest Predictions</th>
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</table>
| Good                          | Production stimulus: top dressings, inputs for work or “work delayed”  
Rebuild food security stocks:  
National: favor regional over imports when possible  
Rural: community storage programs  
Reinstate suspended tariffs and taxes:  
Build revenue  
Timing is an issue, often linked to competition in market  
Targeted safety nets: still needed during season for net cereal buyers in zones with 2007/08 shortfalls; after the harvest very poor still vulnerable; probably more urban than rural  
Remove export bans: Mali first to aid Mauritania/Senegal |
Best-Case Scenario

Millet: Nominal retail prices in Kayes, Mali

- **Kayes**: Prices are shown from October 2002 to September 2007, with average prices for 2004/05 and 2007/08.
- **Prices**:
  - 2002/03 - 2006/07 AVE
  - 2004/05
  - 2007/08

- **Map**:
  - Countries: Mauritania, Mali, Burkina Faso, Niger, Senegal, Nigeria
  - Kayes region highlighted
  - Data points: October (OCT), November (NOV), December (DEC), January (JAN), February (FEB), March (MAR), April (APR), May (MAY), June (JUN), July (JUL), August (AUG), September (SEP)

- **Graph**:
  - CFAF/kg
  - Prices range from 80 to 280

- **Legend**:
  - Blue bars: 2002/03 - 2006/07 AVE
  - Green line: 2004/05
  - Light green line: 2007/08
“Second Best” Case Scenario

**World Market Cereal Prices: May-December**

<table>
<thead>
<tr>
<th>High or Rising</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production stimulus</strong>: even more vigorous promotion of top dressings, inputs for “work delayed”</td>
</tr>
<tr>
<td><strong>Export bans</strong>: More difficult to remove. Government to Government negotiations within region.</td>
</tr>
<tr>
<td><strong>Food security stocks</strong>: Rebuild using domestic and regional purchases in high surplus zones but monitor impact on prices; if truly bumper harvest may need to support prices; encourage community storage programs.</td>
</tr>
<tr>
<td><strong>Tax policies</strong>: Depends on degree of import-dependence. Mali/Burkina/Niger: reinstate as soon as harvest available Senegal/Mauritania: Later or with targeted safety net</td>
</tr>
<tr>
<td><strong>Safety nets</strong>: after harvest will need more focus on urban than rural if rice/bread consumption difficult to change</td>
</tr>
</tbody>
</table>

**Rainfall & Harvest Predictions**

- Good

Pretty Bad Scenario

**World Market Cereal Prices: May-December**

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Production</strong>: Off season focus for cereals plus high value crops; livestock may need help with feed; input suppliers may need help with carry over stocks; poultry not clear.</td>
</tr>
<tr>
<td><strong>Export bans</strong>: Difficult to remove; pursue bilateral options (e.g., Senegal/Mali investment for cereals).</td>
</tr>
<tr>
<td><strong>Import facilitation</strong>:</td>
</tr>
<tr>
<td>International: improve competition and credit</td>
</tr>
<tr>
<td>Regional: Crack down on illicit road taxes</td>
</tr>
</tbody>
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**Rainfall & Harvest Predictions**

- Bad
Worst-Case Scenario

World Market Cereal Prices: May-December

High or Rising

Follow previous recommendations at more intensive levels, particularly for dry season activities, but
Where ‘bad’ season occurs matters
If Mali/Burkina/Niger are ok—pursue bilateral agreements
If Mali/Burkina/Niger not ok, all will need international assistance; IMF food import facility, food aid.
If Nigeria bad but Sahel just ok, close borders???

Bad

Continue tax holiday (will affect government balance sheet but will be very difficult to lift)
Better targeting of other programs may be needed, but needs will also be greater so international assistance needed
Medium-Term Considerations: 
Avoid

- Weakening capacity of private sector to respond after the crisis
  - Unreasonable price controls that cause losses
  - Food/input sales by government/donors that compete unfairly with private sector
  - Over-reaction to urban needs at the expense of rural needs
- Creating policy uncertainty

Medium-Term Considerations: 
To Do

- Promote agricultural sector growth
- Develop appropriate strategies
  - Is rice self-sufficiency for Senegal the answer?
  - Is subsidized fertilizer what is needed to revive rice production in Mali’s Office du Niger?
  - What is the appropriate balance between irrigation and SWC investment (taking into account implications for food production and improving income distribution)?
- Need to move to more micro level and develop different strategies for different zones within each country, keeping in mind opportunities for regional trade
Biggest SR Challenges = Biggest LR Challenges

• Dealing with a demand driven rather than a supply driven food security problem
  – Are the traditional cereal balance sheets of needs vs. supply still useful?
  – Understanding substitution in consumption
  – Dealing with both urban and rural vulnerable

• Realizing the potential of regional trade given:
  – Uneven purchasing power in the region
  – Increasing costs of transport

• Stimulating supply while addressing needs of consumers

Medium-Term Considerations: Typical Strategy Components

• Promote efficient marketing and use of inputs
  – Extension
  – Research

• Credit for farmers and supply chain
• Irrigation and SWC
• Processing of local cereals
• Production and price risk mitigation
• Regional trade