Structure

• Poverty and nutritional trends
• Trends in global and domestic food prices
• Impacts on poverty and hunger
• Learning from the responses to the 2008 food crisis
Faster progress in poverty reduction compared to nutritional indicators

- Number of poor people living on less than $1.25 a day in developing countries fell from about 1.8 billion in 1990 to 1.4 billion in 2005 (42 percent of the population to 25 percent) and the MDG target of halving poverty likely to be met despite global crises.

- However, the developing world is not on track to halve the proportion of people who suffer from undernourishment. FAO estimates that the incidence of hunger increased to 1.02 billion in 2009.
Faster progress in poverty reduction compared to nutritional indicators

• Moreover the proportion of children under five who are underweight declined from 33 percent in developing countries in 1990 to 26 percent in 2006, a much slower pace than needed to halve it by 2015.
Global food prices have been volatile

- World Bank food benchmark index volatile in 2008; increased 23% Jan-Dec 09 and dropped by 7% between January-March 2010
Domestic food prices

• Tracking domestic prices regularly crucial as early warning about food crises. (eg in Malawi in 2001, maize prices rose by 50% in one month following months of stability - signaled extent of food shortages)

• World Bank launched a new quarterly note - Food Price Watch (using FAO food price data in 58 countries) – to report on domestic food price trends and policy implications.

• Localized factors – policy, conflict, weather – lead to divergence from global price trends especially in less integrated economies (e.g. Kenya maize)
# Domestic staple food price trends in selected countries

*source Food Price Watch, May 2010*

<table>
<thead>
<tr>
<th>Location</th>
<th>Commodity</th>
<th>% Increase</th>
<th>Location</th>
<th>Commodity</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudan (Khartoum)</td>
<td>Sorghum</td>
<td>39.8%</td>
<td>Burundi (Bujumbura)</td>
<td>Beans</td>
<td>58.0%</td>
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<tr>
<td>Pakistan (Lahore)</td>
<td>Wheat</td>
<td>23.9%</td>
<td>Zimbabwe (Harare)</td>
<td>Maize</td>
<td>36.0%</td>
</tr>
<tr>
<td>Tanzania (Dar es Salaam) /a</td>
<td>Maize</td>
<td>21.2%</td>
<td>Sudan (Khartoum)</td>
<td>Sorghum</td>
<td>28.2%</td>
</tr>
<tr>
<td>Chad (Abeche)</td>
<td>Sorghum</td>
<td>20.8%</td>
<td>Bangladesh (Dhaka)</td>
<td>Rice</td>
<td>26.9%</td>
</tr>
<tr>
<td>Mali (Bamako)</td>
<td>Millet</td>
<td>17.0%</td>
<td>Chad (Abeche)</td>
<td>Sorghum</td>
<td>23.5%</td>
</tr>
<tr>
<td>Kenya (Nairobi) /a</td>
<td>Maize</td>
<td>16.3%</td>
<td>Haiti (Port-au-Prince)</td>
<td>Rice</td>
<td>22.9%</td>
</tr>
<tr>
<td>India (Mumbai)</td>
<td>Wheat</td>
<td>13.6%</td>
<td>Somalia (Lasanod)</td>
<td>Sorghum</td>
<td>20.6%</td>
</tr>
</tbody>
</table>
The drivers of Kenyan maize prices
Price volatility: global vs domestic staple prices

- St. Dev. of the 1st Difference of International Grain Price Index
- St. Dev. of the 1st Difference of Domestic Price of Staples

Graph showing the comparison between international grain price index and domestic price of staples over time, with peaks in volatility in 2008 and 2009.
Poverty Impacts of 2008 food price spike

- Urban poor worse off and in most countries so are rural poor who are net consumers of food

- 3%-5% estimated increase in number of global poor due to 2008 food price rise (Ivanic & Martin 2008, Dessus 2008, Wodon 2008)

- But these numbers do not capture detrimental effects on already poor households
  - 88% of increase in global depth of poverty among urban households is due to poor becoming poorer
  - Only 12% due to ‘new poor’
Poverty Impacts of 2008 food price spike

West and Central Africa
- Simulations suggest 50% increase in food prices raises poverty rates by 2.5-4.4 percentage points

Latin America
- Range of potential increases in headcount poverty rates from 3.4 percentage points in Jamaica to 0.3 in Peru

East Asia
- Estimates for Vietnam highlight complexity of impacts
  - 10% increase in food prices reduces poverty as significant share of poor households are net sellers of rice
  - But many households are worse off so inequality worsens
Nutritional impacts of food price shocks

- HHs switch from more expensive protein sources to cheaper cereals (resulting in micronutrient deficiencies)

- Poor likely to cut back on total caloric intake leading to weight loss and severe malnutrition

- Children under 2 and pregnant women most vulnerable

- Many countries most exposed to rising food and fuel prices in 2008 had high pre-existing levels of malnutrition (eg Burundi, Madagascar, Niger, Timor, Yemen)

1. Estimate a calorie-income (Engel) relationship using a cross country panel data for which data on per capita income (WDI) and per capita calorie consumption (FAO) was available (83 countries over 8 years, 742 observations)

2. Use income distribution data to generate a cumulative distribution function (CDF) for per capita country for every country.

3. Determine the minimum daily calorie intake threshold below which an individual is deemed undernourished.
4. Using the Engel relationship, determine what the income requirement for the threshold calorie level is.

5. Using the CDF we work out what fraction of the population cannot afford this level of calories, and use population weights to derive regional estimates for undernourishment.

6. When prices increase, Engle curve shifts “down” or to the “right” (price change multiplied by price elasticity of calories).
Impact of food price crisis on undernourishment

![Bar chart showing the number of people undernourished (in millions) by region and year.](chart)

How did countries react to the 2008 food price spike?

What safety net options did countries have in 2008?

Existing Safety Net Interventions (% of all 118 countries)

- Cash transfer
- Food for work
- Food ration/ stamp
- School feeding

Source: Data based on responses from 118 country teams
Learning from the immediate policy responses to the 2008 food crisis

- Overall, significant scope for technical assistance in improving these policy measures during ‘non-crisis’ years e.g:
  - Subsidies – important to distinguish between universal subsidies which depress incentives and take up large share of budget vs. smaller subsidies targeted at vulnerable groups
  - Stock management – professional management/oversight essential to minimize leakages, losses and market disruptions. Focus on fortified grains.
  - Tax cuts – fiscal and distributional implications
Learning from the safety net responses to the 2008 food crisis

- Trade-offs between one large national program vs menu of safety net options: flexibility in responding to different needs vs coordination/scale

- Nutritional lens needs to be incorporated in safety net design e.g. fortification of food based programs; targeting nutritionally vulnerable groups etc

- Safety nets need to be linked to the growth agenda in order to mobilize political support for funding
Medium run policies for food security

- Measures to increase household income and reduce vulnerability to shocks

- Higher levels of public & private investment in agricultural support services (research, extension, market information) and reduction of post harvest losses.

- Forward contracts for international grain procurement; market based risk management instruments

- Removing trade barriers
Global and domestic price trends of food staples can differ significantly; monitoring domestic staple prices essential.

Nutritional impacts of higher food prices can have irreversible consequences and hence policy responses – both food policy measures and safety nets - ought to incorporate a ‘nutritional lens’.

2008 food crisis policy instruments will be re-used during the next food price spike so international community can assist in improving their implementation.

For more information: www.worldbank.org/poverty