Food Prices in Agricultural Markets
Part 2

Focusing on:
<u>Food Prices and the Welfare of Poor Consumers</u>
by Ethan Ligon

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Jannicka Murphy, Elena Mckinstry, Lihn Nguyen, Monika Roy

Photo by Simon Lim

Dharavi: the biggest slum in South East Asia

Professor Ligon asked, “How do increases in the cost of food affect the world’s poor consumers?”

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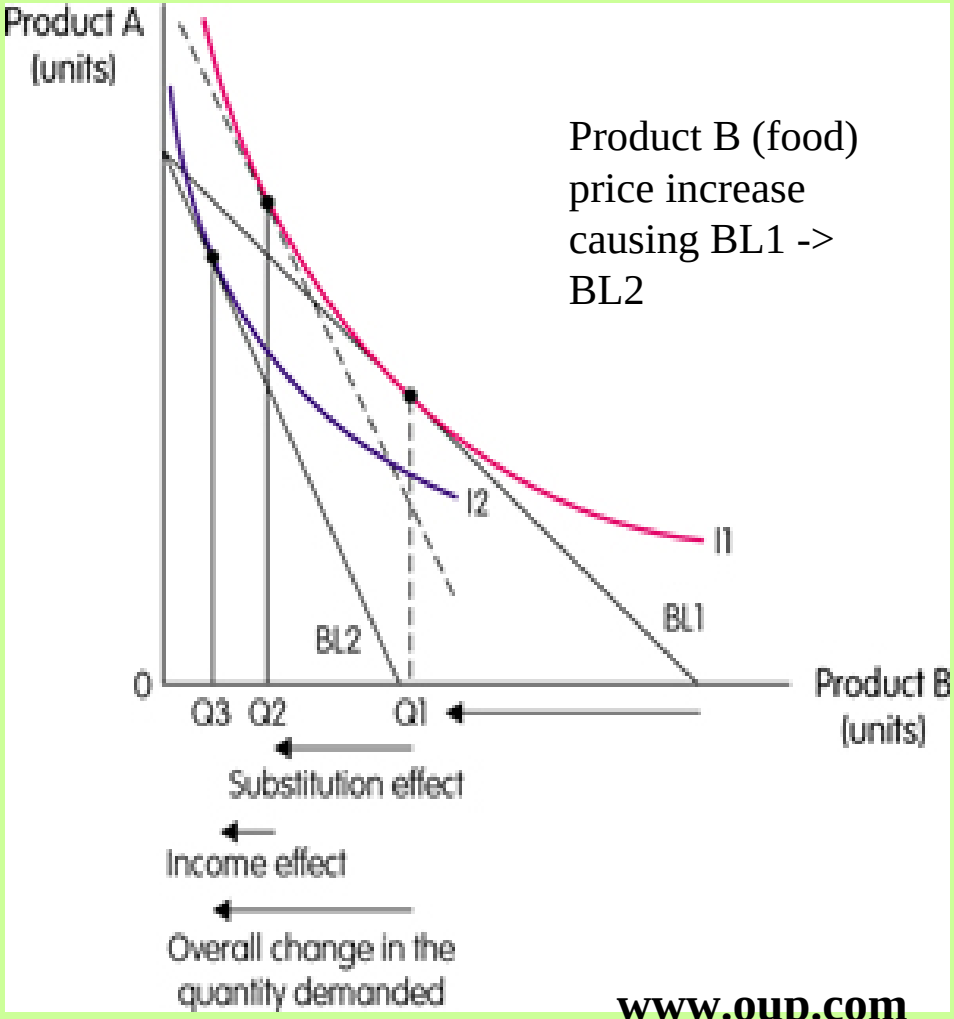
Areas of specialization

Dynamic incentives & inequality, Development economics, Agricultural contracts, Risk sharing, Intra-household allocation, Applied econometrics

Standard demand theory has us look at two effects:

- Substitution effect – an increase in the price of food relative to other goods will lead to a decrease in (compensated) demand for food.

- Income Effect – at the new increased prices of food the consumers' budget is reduced for purchases of all other goods.



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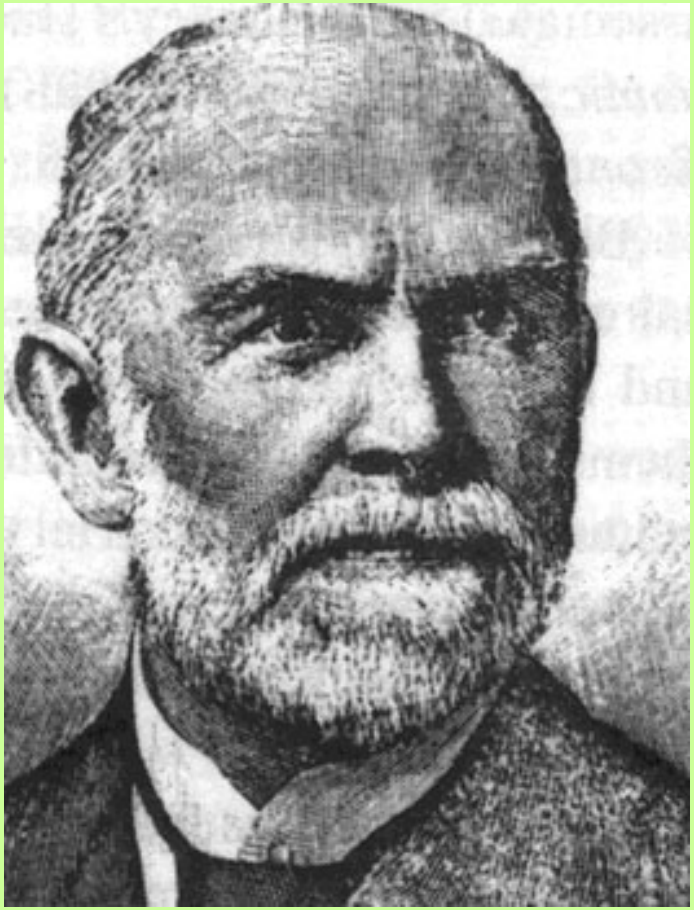
But we can not forget an observation regarding consumer demand: Engel's Law.



(Christian Lorenz) Ernst Engel 1821-1896

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- Engel's Law - "The poorer the family, the greater the proportion of its total expenditure that must be devoted to the provision of food." In other words the size of the income effect will be larger for poor consumers than for rich ones (not predicted by standard economic models which assume that the budget share of food is constant).

- With increased food prices poor consumers will be forced to allocate a larger share of their budgets to food, reducing investments in health, education, and other nonfood items.

- Professor Ligon shows the effects on the poor with a simple economic model.

Statistical Change Resulting in Increased Food Prices

- **For this study, “poor” is classified as spending at least half of income on food**
- **A 50% increase in food prices yields 30% increase of the world’s poor**
- **In a case study of a rural Maharashtran household, the same 50% food price increase would cause the average household to decrease non-food consumption by 80+% and food by 44%**
- **Wealthy consumers scarcely feel this increase; the majority of the effect falls upon the poor**

Figure 1. Wealth and Demand

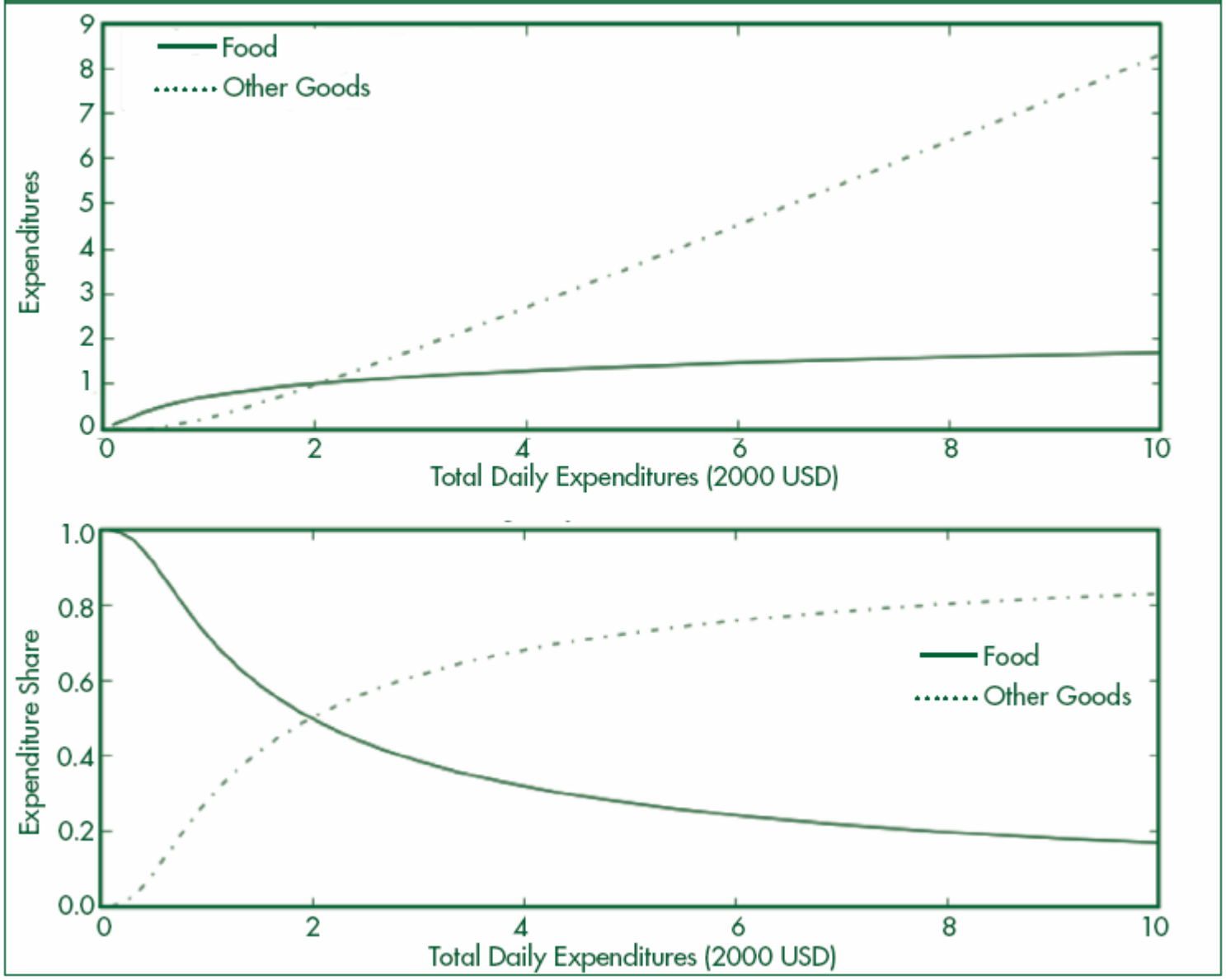


Figure 2. Expenditure Elasticities for Food

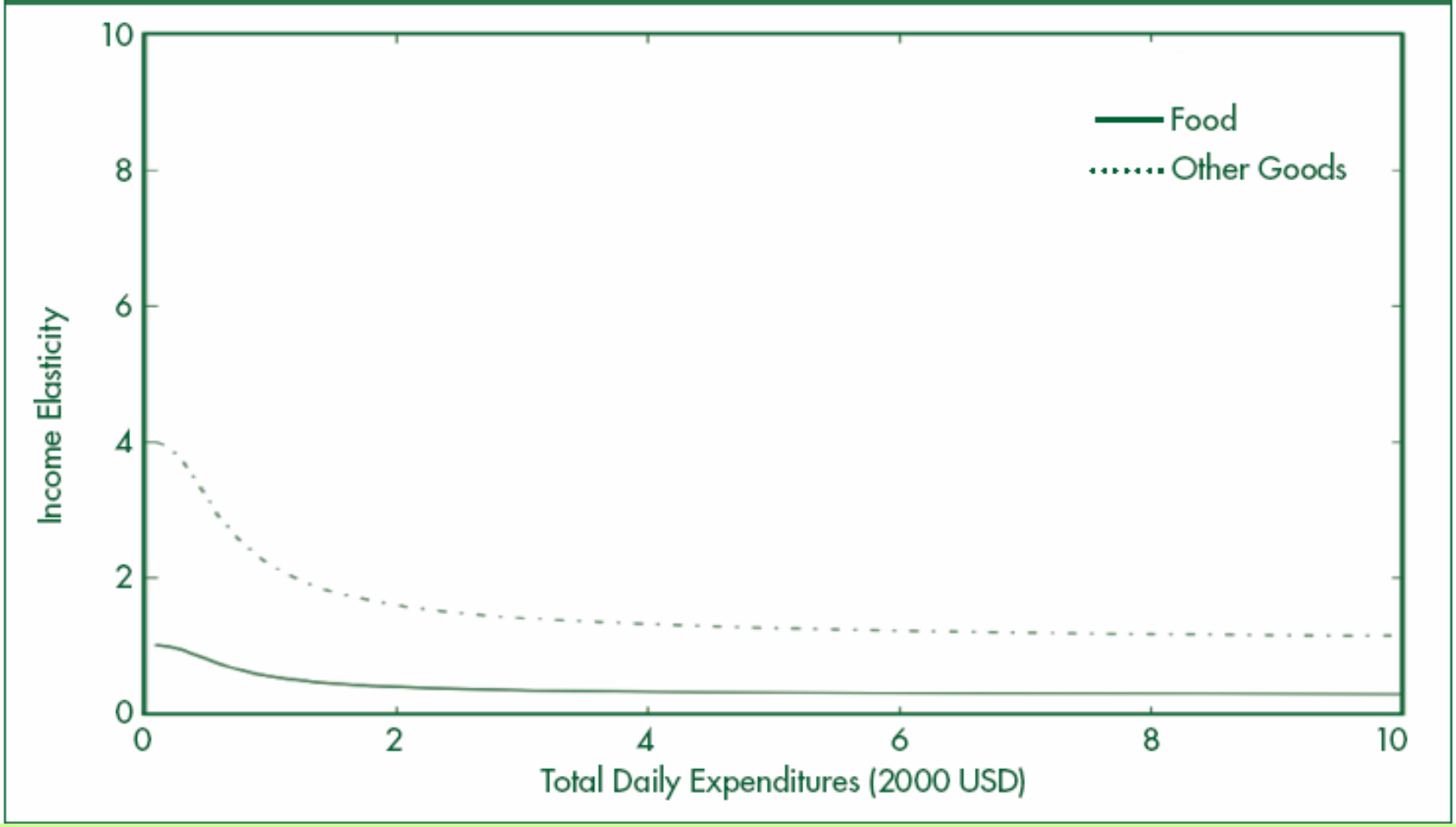
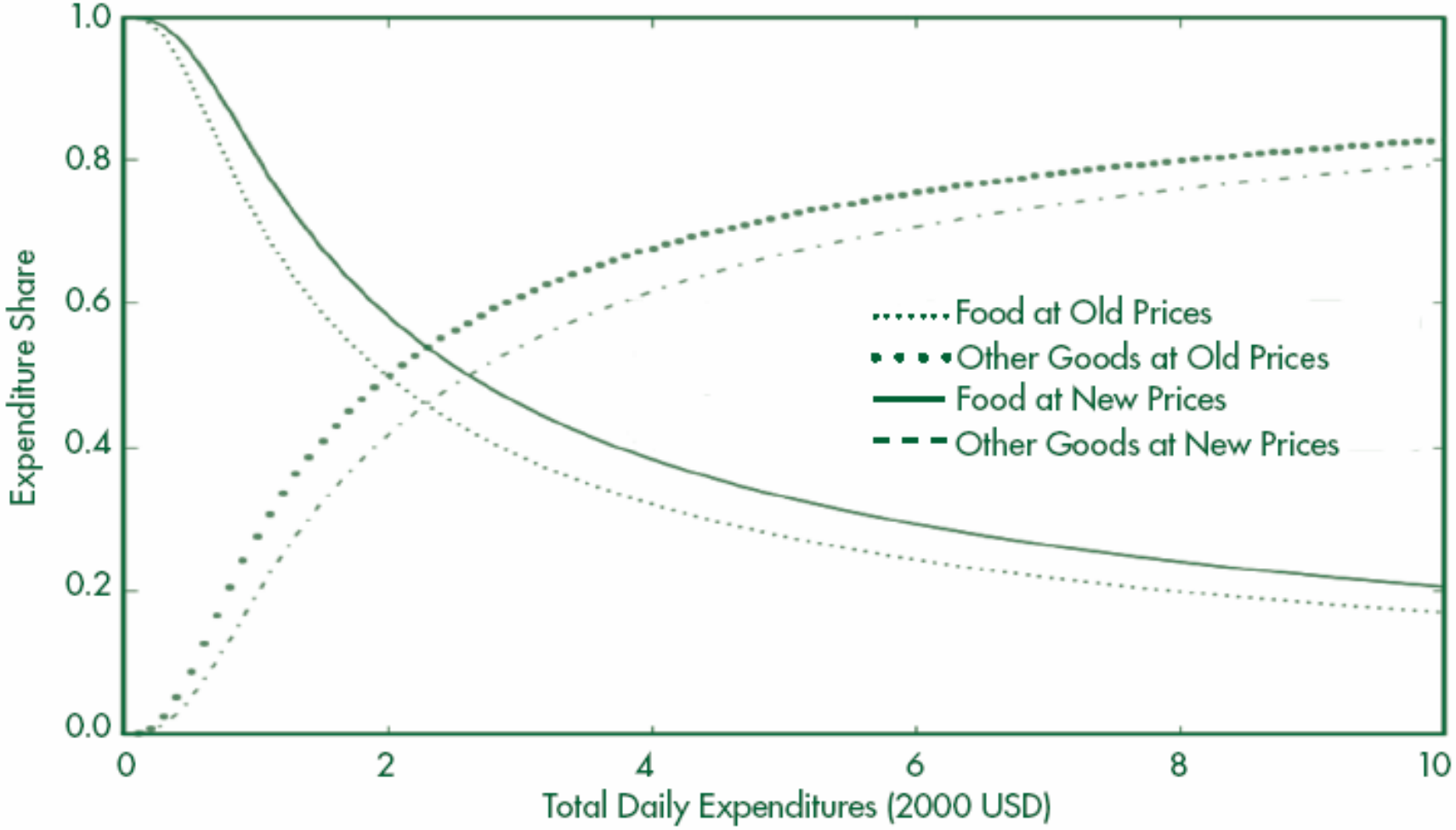


Figure 3. Consequences of a 50 Percent Food Price Increase for Expenditure Shares



WHY are there higher food prices?

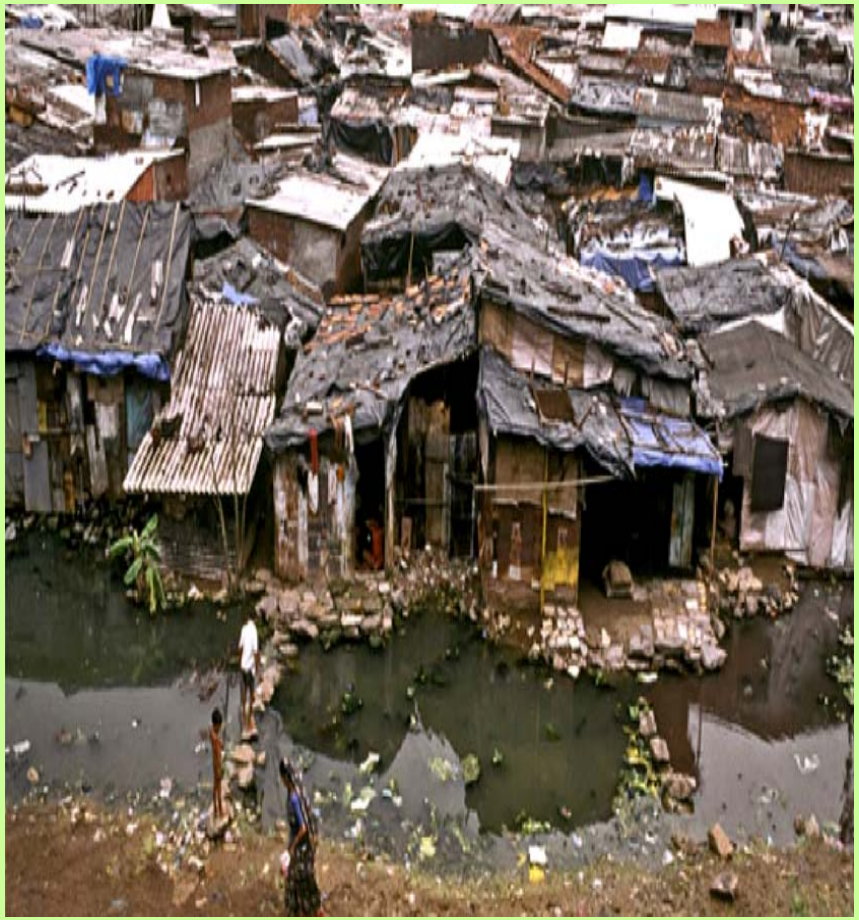
- Biofuel policies in the United States, Brazil, and the European Union (EU) shifting crop utilization from food to fuel.
- Supply shortfalls due to poor weather in Australia, Europe, and elsewhere.
- A gradual tightening of world food supplies due to rapid demand growth in emerging economies (such as China, India, and Russia) and slowing growth in crop yields.
- Higher energy prices that drive up the cost of food production, transportation, and fertilizer.
- Hoarding and export controls.
- Declining value of the U.S. dollar and relatively low real interest rates.
- Speculation and the increasing involvement of hedge and index funds in commodity futures trading.

(Carter, Rausser, Smith. “Food Price Boom and Bust”.)

Food and Nourishment

- Less $$$ for luxury food items = good?
- Basic staples vs. Junk food
- When consumers income falls, non-food items are more affected than food items (regardless of income)

  -Less $ for education, healthcare



Policy Interventions

- Where is the focus in intervention?
- Country vulnerability to pass-through
- World Bank's "Global Food Crisis Response Program" doesn't work
- U.S. price controls/marketing orders
- Green Revolution revisited?
- "Next Harvest" Food Security Programs
  - example: Milpa in Mexico, Conuco in D.R.

(de Janvry, Sadoulet. "The Global Food Crisis: Identification of the Vulnerable and Policy Responses".)