

# Food, Fuels, Oil and World Economy

by Anne Krueger

# Economics teaches that everything depends on everything else, and this was never more true than in the current situation.

- Growth in the international economy was rapid-which was good-and well above previously recorded levels over the years.
  - the international economy was highly liquid, so that foreign exchange reserves built up to unprecedented levels
  - when oil prices rose, there was little response and growth accelerated
- Demand for fuels, agriculture products, and other commodities also rose rapidly.
  - there was little excess capacity in oil production throughout the past five years
  - agriculture production rose, but insufficiently rapidly
  - energy concerns led to increased demand for gains for biofuels
    - some fortuitous events accentuated the problems

- Short-term policy issues
  - humanitarian
  - concerted action regarding stocks?
  - pass-through of prices
  - remove targets for biofuels
- Longer-term
  - Investment in agriculture
  - Investment in finding sensible energy alternatives
  - Doha Round – room for a deal?

# Rapid economic growth of the international economy

Since 2004, world has averaged more than 4 percent real growth of GDP

- Developing Asia has averaged over 8 percent
- Developing countries have grown faster by more than 2 percentage points than industrial countries
- This resulted in upward shifts in demand for everything, but especially food and fuel

# Run – up in oil price is well known

- At first, expectation was it would be temporary
  - It was thought to be different, because it was driven by increased demand
  - There was thus little initial response – projections said supply would start getting tight around 2010
  - But as price has continued to rise, response has changed and there is concern
  - Drive to grain – based biofuels was one result
- Demand for oil and energy rose rapidly, but so did demand for food
  - Shift toward more nutrients, less “energy efficient” foods
    - it takes 8 times the grain to produce energy through cattle; 4 times for pigs and poultry
    - so growth in poor countries resulted in larger upward shift in demand than growth in rich countries would
    - biofuels added to demand
    - drought and other one-off factors also contributed

# World agricultural production has been growing 1-2 percent per year

- Stocks of grains have been falling since 2000
- Supply response to higher prices has been slow and relatively small.
- Several factors may explain this:
  - demand for non-grains has increased and land diverted
  - price of fuel has driven up prices of farm inputs so incentives were reduced
  - investment in agriculture has not increased much
  - water and (quality) arable land may be in short supply

# Bio-fuel demand has intensified the problem

- It is estimated that 30 percent of U.S. corn has gone into biofuels
  - From 34 million tons of grain in 2004-5, 76.8 million tons went into biofuels in 2007/08 and it is estimated to be 101.7 million tons in 2008-9.
  - If 20 percent of U.S. maize went into ethanol, it would meet only one-third of current 10-percent blending target.
  - U.S. has been the user of about 80 percent of worldwide use of grains in biofuels.
  - Estimates of the effect of U.S. bio-fuel use suggest that that accounts for about 30 percent of the increase in cereal prices.

# Policy Issues

## ■ Short term

- Humanitarian – food price increases are reducing the consumption of the very poor. Most of the poor are net buyers of food. It is estimated that on the prices that would result from current biofuel plans there would be an 8 percent reduction in caloric consumption in Africa, 7 percent in Latin America.
- Some countries (15) have restricted or banned exports (because of concern about food security or because of a desire to keep consumer prices low). This has contributed to the run up in world prices and will reduce supply response. An international ban on this behavior would, it is estimated, offset 30 percent of the run up in prices to date.
- Some measures could, even in the short run, increase crop production in some parts of the developing world, especially Africa (provision of seeds, etc.)
- Change biofuels policies. The U.S. subsidizes production of grain-based ethanol and imposes a 51 percent tariff on imports of ethanol (Brazil is the largest producer and supplier). Grain-based ethanol is costly (twice the cost of Brazil's sugar-based ethanol) and produces at most about 1.5 units of energy per unit of energy used in production, compared with Brazil's 8 to 1 ratio. IFPRI estimates that a freeze on the level of biofuel-from-grain production could bring down the price of corn by about 20 percent and wheat 10 percent.

# Policy Issues...continued

## ■ Longer Term

- Shift energy policy to seek lowest-cost energy substitutes, regardless of source.
- Encourage (through USAID, multinational organizations, the G-8) accelerating investment in agriculture in developing countries
- Look for Doha Round agreement:  
A possible deal? U.S. reduces cereals biofuel targets and uses; Europe accepts GMO, Africa gets more assistance with food production, exporters and importers agree to pass through international prices to consumers, target the poor more effectively.