

The Global Food Crisis

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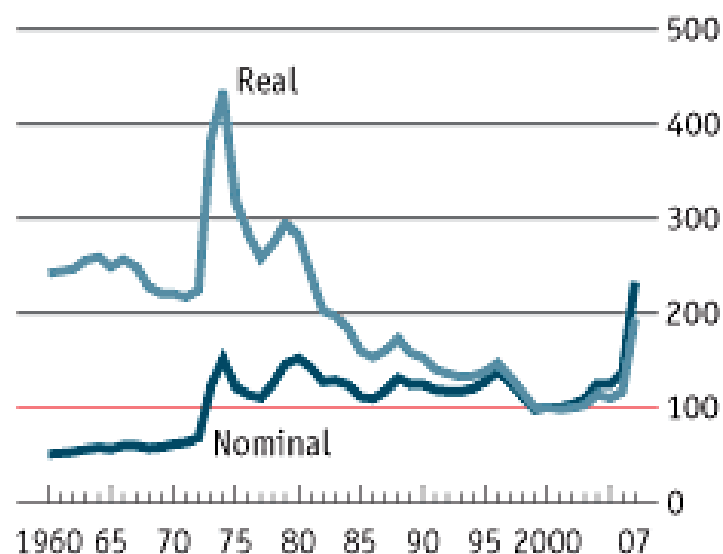
World Food Prices



A real turn-up

2

IMF food prices, 2000=100

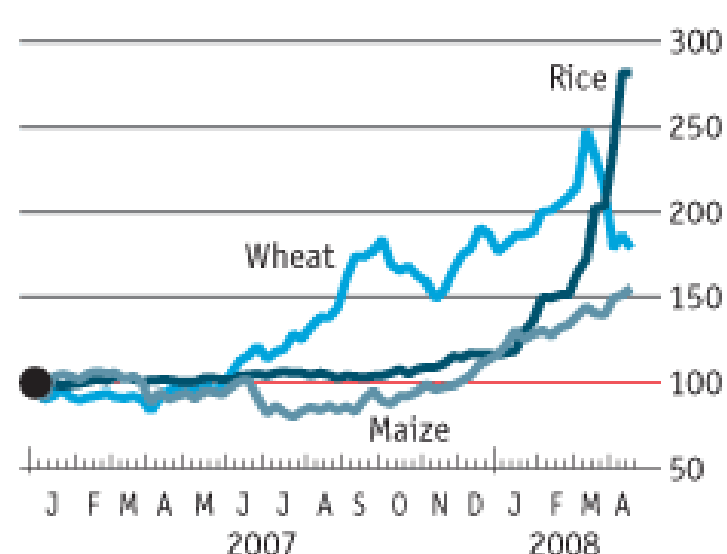


Sources: IMF; US Bureau of Economic Analysis

Shooting up

1

Grain prices, \$ terms, January 2nd 2007=100



Sources: Chicago Board of Trade; Jacksons

World Food Prices



- ❖ **Food crisis occurred in many countries simultaneously – political protests in 30**
- ❖ **May have reduced purchasing power of urban and rural poor by 20%**
- ❖ **1.5 billion on 1-2\$/day – World Bank estimated food price increases would push at least another 100 million in poverty**

Key Drivers of Food Prices



- ◆ **Complex set of forces combined to push up prices:**
 - **Global changes in demand and supply**
 - **Depreciation of the dollar**
 - **Growth in production of bio-fuels**

Demand and Supply



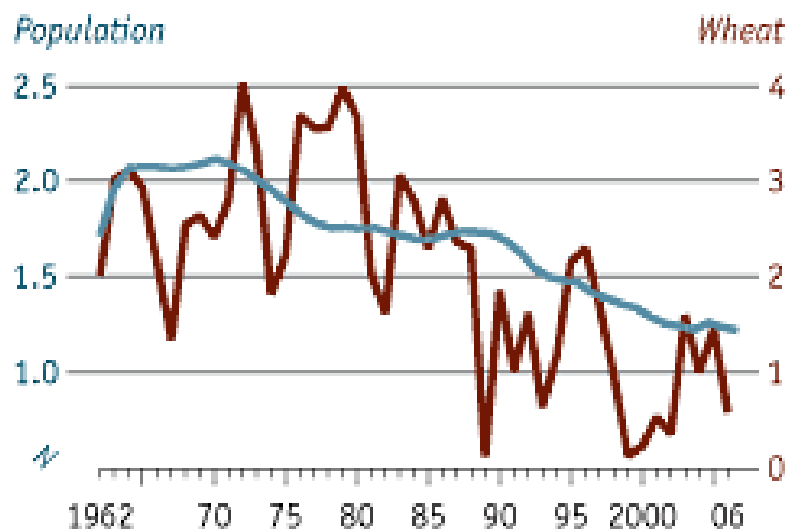
- ❖ **Rapid growth in developing countries – shift from cereals to animal protein**
- ❖ **Slowdown in agricultural productivity growth – change from surplus to shortage, stocks tight**
- ❖ **Weather shocks (Australia) in 2006/07 exacerbated price impact of low stocks**
- ❖ **Export policies also made situation worse (Argentina, China, India, Ukraine, Vietnam)**

Changing food demand



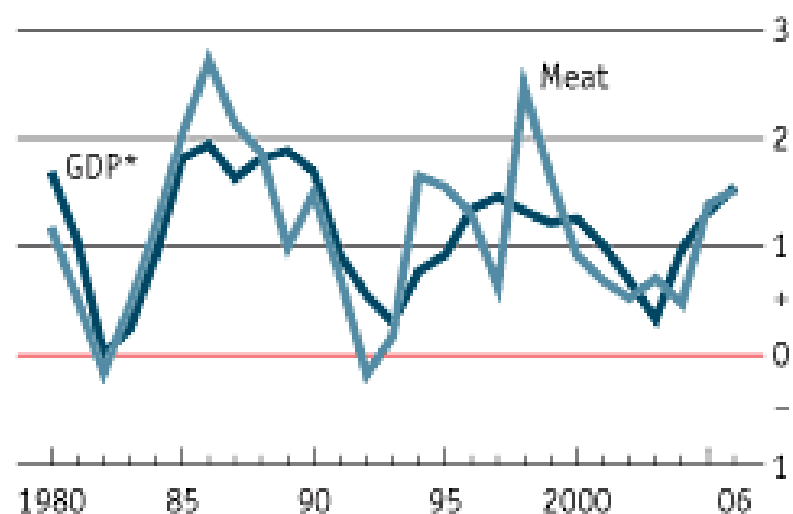
More people, more grain; more money, more meat

World wheat demand and population growth
% increase on previous year



Source: Goldman Sachs

World meat consumption and GDP growth*
% change on previous year



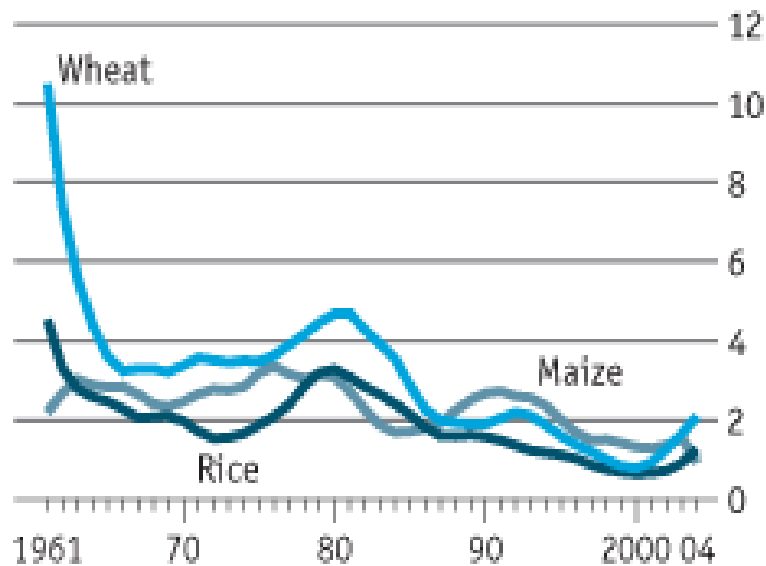
*Estimates based on GDP per person

Agricultural productivity



Diminishing returns

Crop yields in developing countries
Annual average growth rate, %



Source: World Bank

- Investment in agricultural research in developing countries has fallen since 1980s
- New investment will only generate payoffs through higher yields after 5-10 years
- Policies to allow adoption of existing technologies may have a more rapid payoff

Declining Stocks



Chart 4

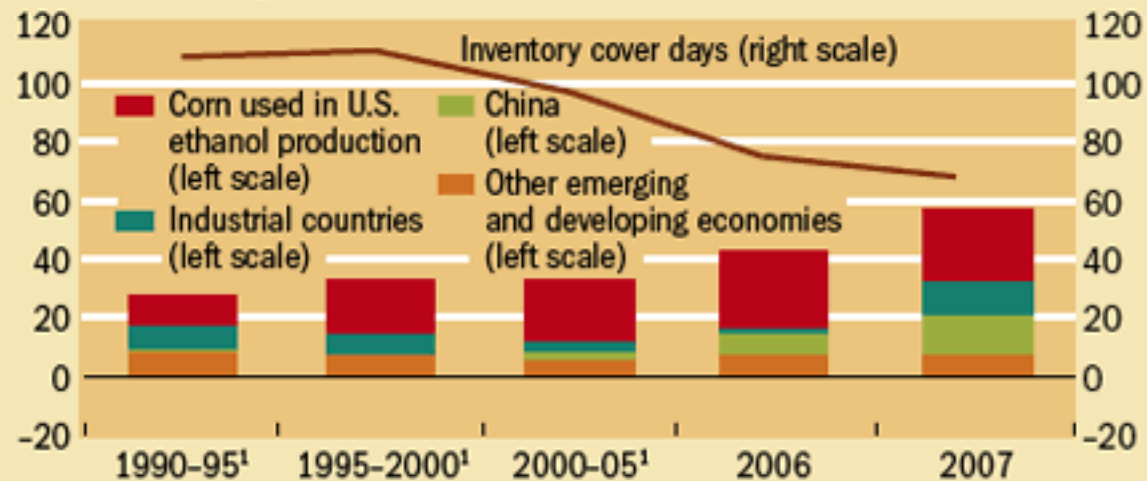
Falling inventories

Strong demand has been a key factor underlying dwindling inventories of major food crops.

(demand for major food crops;

year-on-year changes; million metric tons)

(number of days)



Source: U.S. Department of Agriculture.

¹Period average.

US Dollar and Commodity Prices



- ◆ **Depreciation in dollar may have raised prices:**
 - **falling dollar reduced returns on dollar-denominated assets in foreign currencies, making commodities more attractive asset**
 - **dollar depreciation risked US inflation, prompting move to commodities as hedge against inflation**
 - **dollar depreciation led to easing of monetary policy in other economies, stimulating demand for commodities**

Bio-fuels and Food Prices



- ◆ **Surge in US ethanol production set in context of Federal bio-fuels mandate and other policies**
- ◆ **2004-07, most of increase in global corn production (55 million tons) went into US ethanol production (50 million tons)**
- ◆ **Growing demand for ethanol was driven by high oil prices, which then affected corn prices: \$2.26/ bushel at \$40/barrel → \$6.33/bushel at \$120/barrel (Farm Foundation, 2008)**

Bio-fuels and Food Prices



- ◆ **Various estimates of impact of bio-fuels on food prices: (i) USDA, 2-3%, (ii) IMF, 20-30%, (iii) World Bank, 65%**
- ◆ **World Bank (2008) estimate: 140% increase in food price index (2002-08): 15% (energy/fertilizer prices), 20% (US\$), 105% (bio-fuels *and* related effects of stocks, land-use, speculation, and export controls)**
- ◆ **While cause(s) of increase in food prices complex, appears to have been connection between food and fuel**

What Happened to Food Crisis?



- ◆ **July-December 2008, prices fell by 40%**
- ◆ **Farmers harvested 2.3 billion tonnes**
- ◆ **Demand stagnated as world economy fell into recession**
- ◆ **However – by June 2009, food prices had rebounded by 33%, despite forecast of another large crop this year**

What Happened to Food Crisis?



Ripening seeds

Cereal stocks and production, tonnes bn

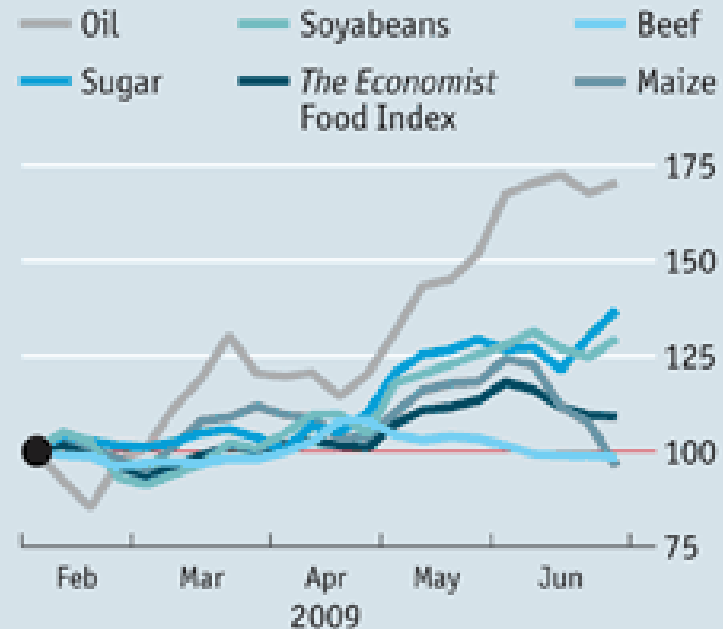


Source: UN Food and Agriculture Organisation

*Estimate
†Forecast

Oil fuelled

Commodity prices, February 3rd 2009=100



Source: The Economist

What Happened to Food Crisis?



- ◆ **Is world food crisis returning?**
- ◆ **Why food price inflation in a recession?**
- ◆ ***Cyclical* reasons:**
 - **rebuilding of global grain stocks**
 - **ethanol competitive again**
 - **import costs kept down by fall in dollar**
 - **grain demand in emerging economies**

What Happened to Food Crisis?



- ❖ ***Long-run* trends – continued world population growth, urbanization and changes in diet**
- ❖ **World population expected to increase from 6.7 billion to 9 billion by 2050**
- ❖ **By 2050, there will have to be a 70% increase in world food production**
- ❖ **Need yield increases in poor countries where current crop yields are very low**

What Happened to Food Crisis?



- ❖ **Farmers in many poor economies did not get higher prices in 2008**
- ❖ **Increase in cereals output came mostly from rich countries - costs of food crisis borne by the poor**
- ❖ **Price rises in 2008 not just a bubble, but real mismatch of demand and supply**
- ❖ **Current price increases suggest nothing has fundamentally changed**