



The Food Industry Center
UNIVERSITY OF MINNESOTA

Volatile Food Prices & the Current Financial/Economic Crisis: Causes & Impacts

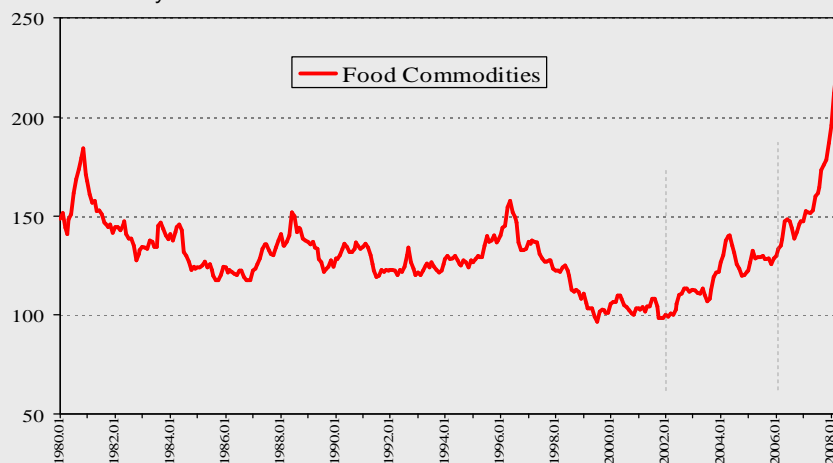
Ben Senauer

October 23, 2008

Food commodity prices:

up 220 % since January 2002: 70 % since January 2006

Index: January 2002 = 100



1/ Food Commodities include grains, vegetable oils, meats, sugar, and other basic food commodities.

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Source: International Monetary Fund: International Financial Statistics

CBT Futures Market Prices (December contract 2008 on Oct. 10)

	Lifetime: High-Low		Close
• Corn	\$7.99	\$3.86	\$4.08
• Soybeans	\$16.37	\$9.10	\$9.10
• Wheat	\$12.84	\$5.58	\$5.64
• Rough Rice	\$22.72	\$11.90	\$16.38
• \$/bushel except rice is \$/CWT			

Analysis

- Corn down 49% from Spring peak.
- Wheat down 56%.
- Soybeans down 44%.
- Prices remain above their LT norms .
- **Big Question:** whether drop to LT norms or Asia continues to grow & sets a floor.
- OECD-FAO predicted agric. prices remain above norm for years.

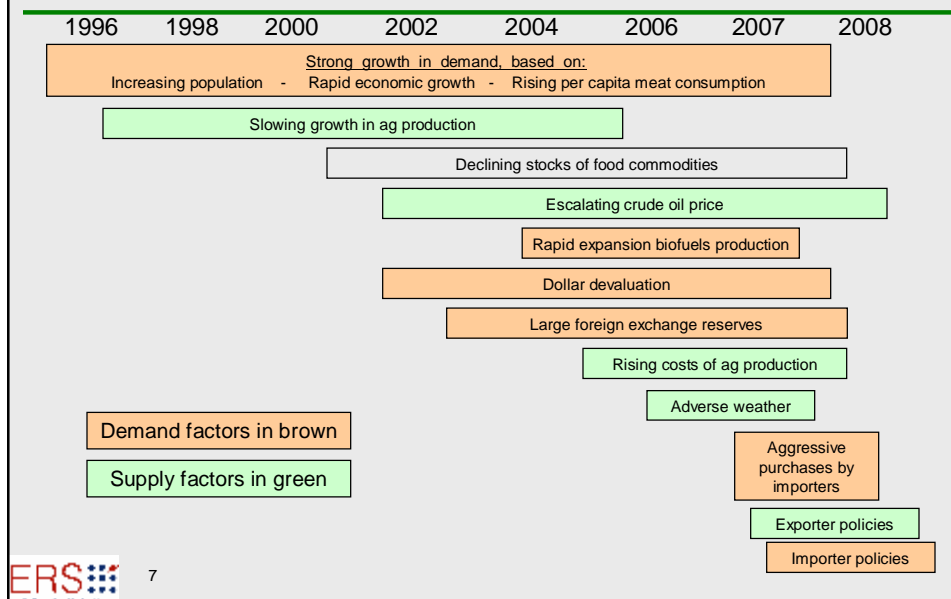
Why Did Prices Plunge

- “A serious U.S. & global economic slowdown could be the one factor that would sharply decrease commodity prices”
(Senauer, July 2008)
- 2008 crop will be much better than expected in the Spring.

continued

- Suggests speculation was a factor.
- Value of OTC commodity derivatives
2004 about \$1 trillion
2007 about \$9 trillion.
- Turnover of ETF commodity contracts
2004 about 150 million contracts
2008 about 475 million contracts.

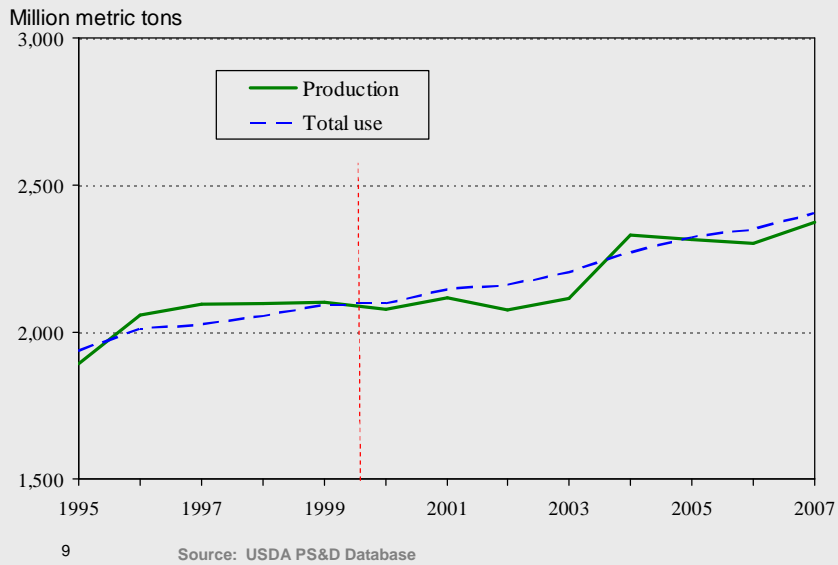
Factors behind the rise in food commodity prices (Ron Trostle)



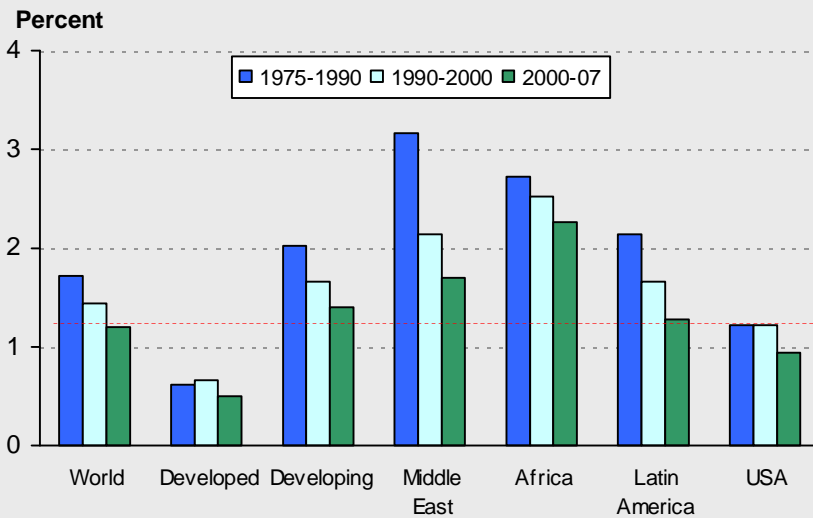
Causes

- Previous commodity prices surges due primarily to supply shocks.
- This time demand-side factors were a major cause.

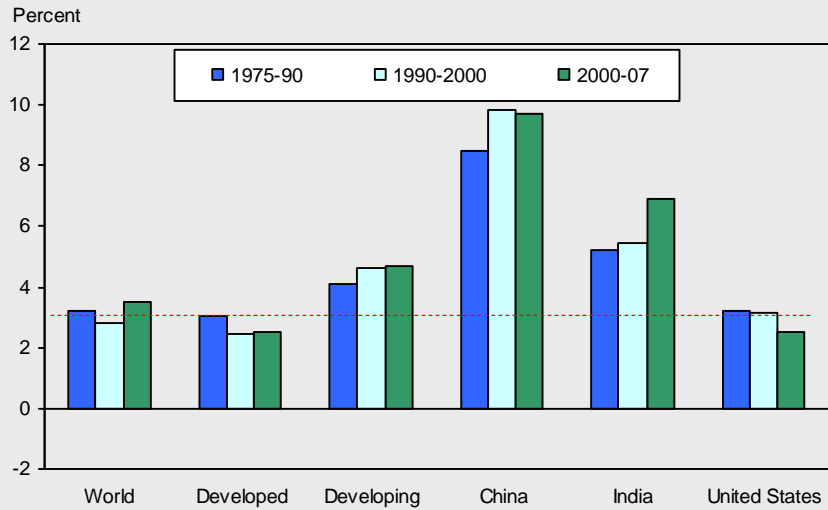
World grain & oilseeds Total production and use



Population growth rates decline (Percent by period)



Strong economic growth Average Real GDP growth rates



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Source: USDA Agricultural Baseline Projections to 2017.

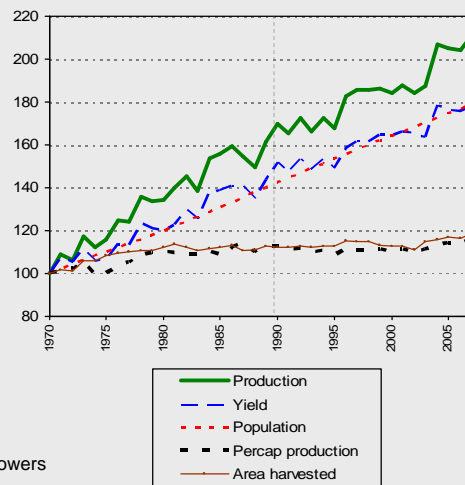
Total world grain & oilseeds¹

Production, yield, area harvested, population & percap production

Exponential trend growth rates:

	1970-90	90-07
Production	2.2	1.3
Yields	2.0	1.1
Area	0.15	0.14
Population	1.7	1.4
Per capita use	0.56	0.11

Index: 1970 = 100

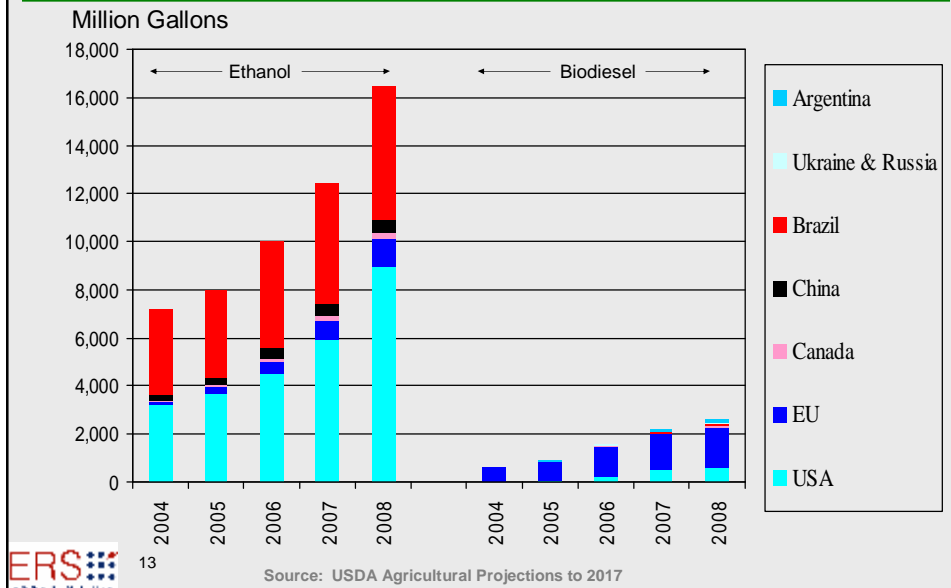


¹Total oilseeds = soybeans + rapeseed + sunflowers

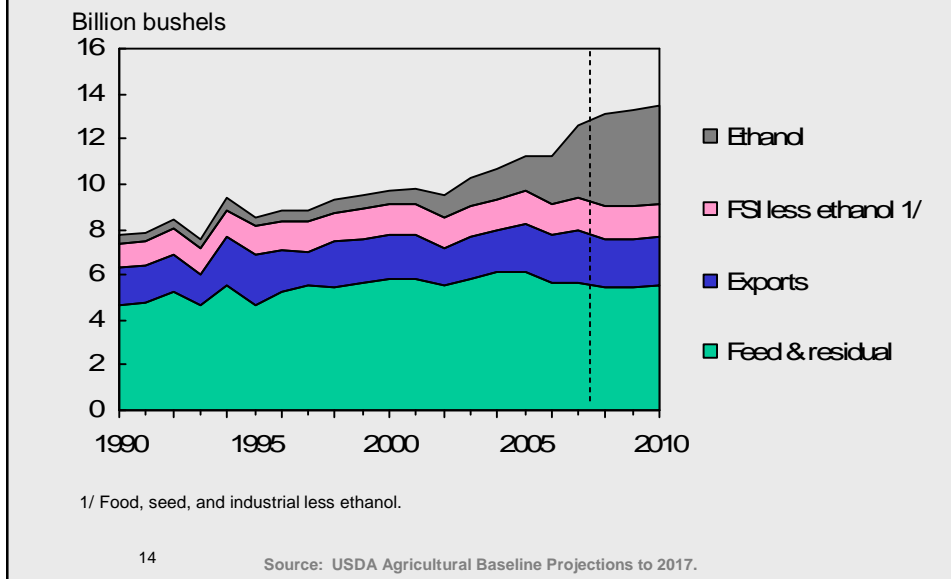
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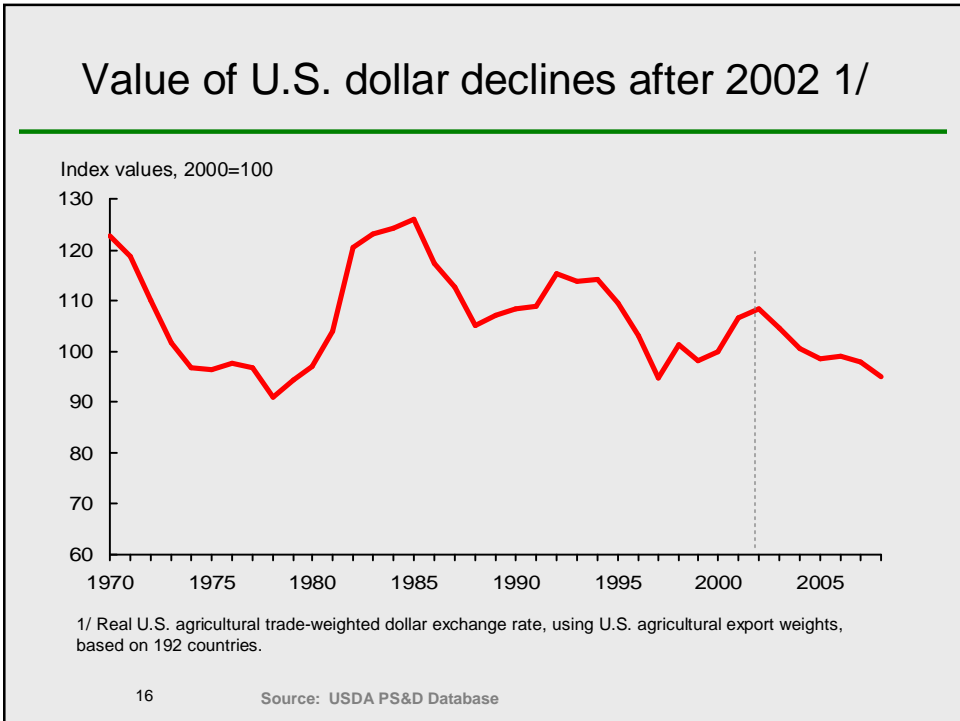
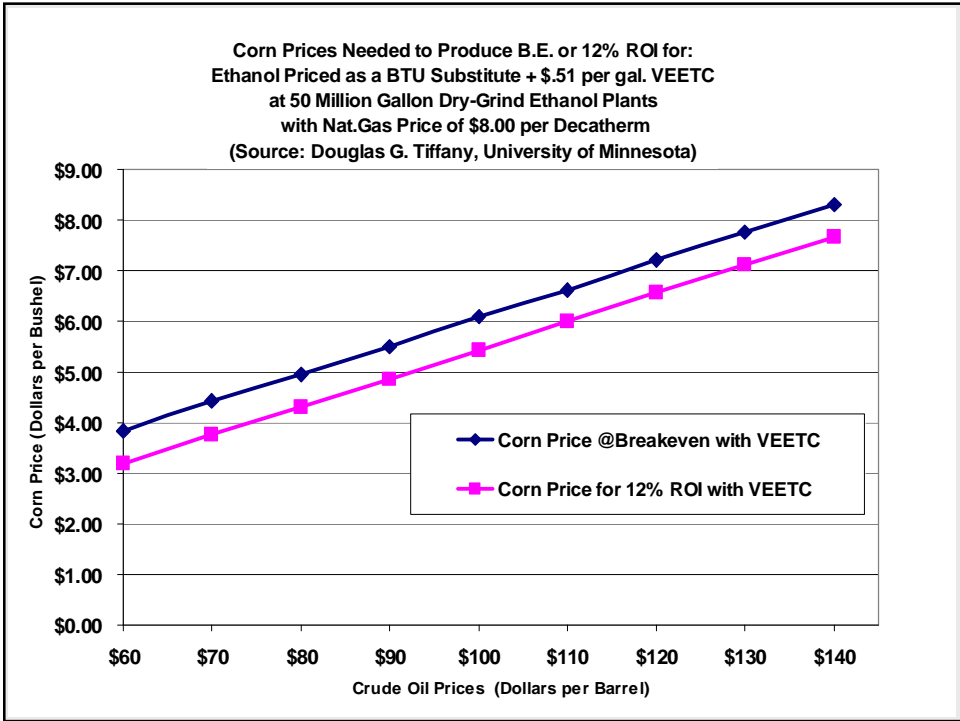
Source: USDA Agricultural Projections to 2017

Biofuels production: Largest producers



U.S. corn use





Global Impacts

- “Tsunami of Hunger”, Director of the UN-WFP.
- USDA chronic hunger increased by 133 million people in 2007.
 - From 849m in 2006 to 982m in 2007.
 - In 70 low-income countries.
 - Because of rise in basic food prices.
 - Less than 2100 calories/person per day.

Domestic Impacts

- Low and lower middle income households squeezed by rising prices for basics and stagnant wages.
- 2006 BLS CES
- Average hh \$58,101 after tax income spent 10.5% on food; 7.1% on food at home.
- Low 20%: \$9,969 spent 32% on food; 21.4% on FAH.

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- Second lowest 20%, \$26,346.
16.3% on food & 10.1% on FAH
- Since 2000 visits to MN food shelves have increased 65%.
- Many food processors profit margins squeezed between:
 - Rising costs (ag. commodities & energy).
 - Consumer resistance to price increases.
 - Reduced package sizes.

Current Financial Crisis

- A long history of “bubbles and busts”.
- Dutch tulip mania of the 1630s.
Single bulb sold for as much as 28 times skilled craftman’s actual income;
 $\$50,000 \times 28 = \1.4 million.
- South Sea bubble of 1825.
- Financial panic of 1907 and the crash of 1929.

Basic Causes Always the Same

- **Years of speculative excess.**
- **Financial innovations that get out of control:**
CDO's, SIV's, Credit Default Swaps=\$60T.
- **Mammoth asset bubbles**
 - First stocks in late 1990s; then housing & commodities.
 - Mentality: asset prices will always rise.

People Are Sweep into the Bubble Mentality

- Isaac Newton is said to have lost his life's savings in the South Sea Bubble.
- Irving Fisher, one of the most famous economist's of his day said in Sept. 1929: "There may be a recession in stock prices, but not anything in the nature of a crash".

Impact of the Financial Crisis on the Economy

- Almost certainly are already in a U.S. recession.
- Questions is its severity and length & how global it will be.

How financial crisis is transmitted to the real economy

- **Credit:** difficult if not impossible to get.
 - Credit is the life-blood of business.
 - Banks have gone from extreme risk-taking to extremely risk-adverse.
 - Pilgrim's Pride: difficulty in refinancing \$2B loan; 53,000 jobs.
 - State caused IL construction company to declare bankruptcy because of delayed payment.

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- **State & local government** retrench
 - Revenues from income, sales & property tax decline.
 - Unlike federal government, budgets must balance.
 - Layoffs, delayed payments, cuts in spending, especially for long-term projects.

continued

- **Consumers Retrench**
 - Huge increase in consumer debt.
 - Debt of middle-income household (\$45,000/year) grew by 1/3 from 2001-04.
 - Inequity of economic gains for @40 yrs.
 - Income of top 1% up 228% since 1970s.
 - Earnings of men in their 30s flat during that period.

continued

- Many consumers built up increasing debt as spending outstripped earnings.
 - U.S. savings rate was -0.5% in 2005.
- Now consumers are rightfully worried and sharply reducing spending.
 - Sept. car sales fell by 26% compared to Sept. 07. (5% said they might buy a car).

Continued

- **Jobs:** Unemployment rate is likely to surge over next 3-6 months as impact of financial crisis hits.
 - 760,000 jobs lost so far in 2008.
 - Sept. official unemployment 6.1%.
 - 10% counting those not wanting part-time jobs & no longer looking for work.
 - Ed Hyman unemployment rate of 8.5%; Bill Gates- 9.0%.

Domestic Impacts

- U.S. Food Industry:
 - Consumers eliminating discretionary purchases (ex. big screen TV's).
 - Food is a necessity, so industry less affected than many others.
 - Consumer down-scaling; seeks bargains.
 - Costco Sept. sales up 7%; Aldi sales up.
 - However, won't be immune; Pepsi closing 6 U.S. plants & cutting 3,000 jobs.

continued

- Shift toward eating at home rather than going out.
 - But within food service shift toward low-price end (fast food vs. casual dining).
 - Bennigan's chain has closed.
- Surge in food stamp enrollment and demand on food shelves.

Global Impacts

- Emerging economies will not be decoupled.
- Exports (resource or manufactured) and foreign investment will fall sharply.
- Poverty and hunger among the most vulnerable will increase, but now driven by falling incomes not rising prices.