

Livestock: Who Wins, Who Loses, Why?

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Let's Look at the New World Order

Historically U.S. consumers drove worldwide consumption

Today the BRICs are the emerging consumers

Brazil Russia India China



Along with Europe and Japan

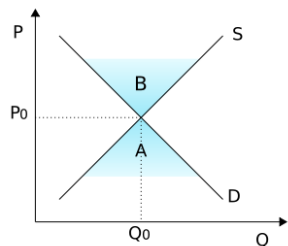


Along with Asia and the Middle East

What is Impacting our Markets?

Supply/Demand?

Perfect Storm?

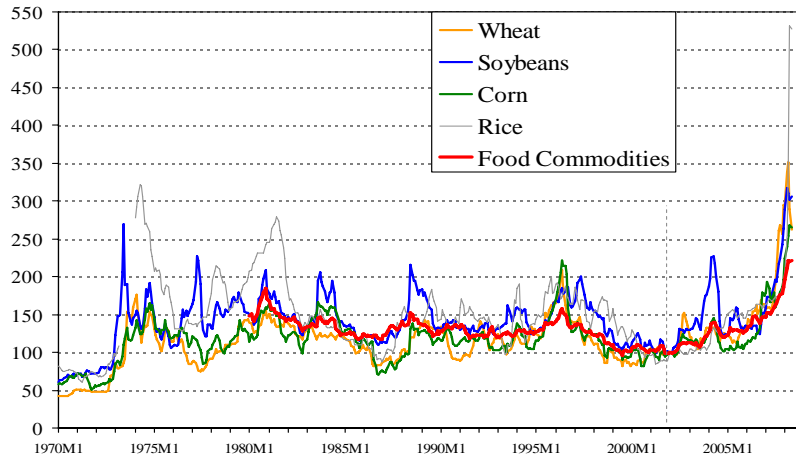


Actually It is A Combination of Both

- Major themes
 - Supply and utilization for grains shifted from surplus to shortage
 - Falling US \$ has made US agricultural products cheaper on an exchange rate basis
 - Role of hedge funds, index funds, & sovereign wealth funds:
 - (affect demand and/or volatility?)
 - New linkages have been created between energy and commodities
 - U.S. foreign exchange reserves

Food commodity price spikes since 1970

Index: January 2002 = 100

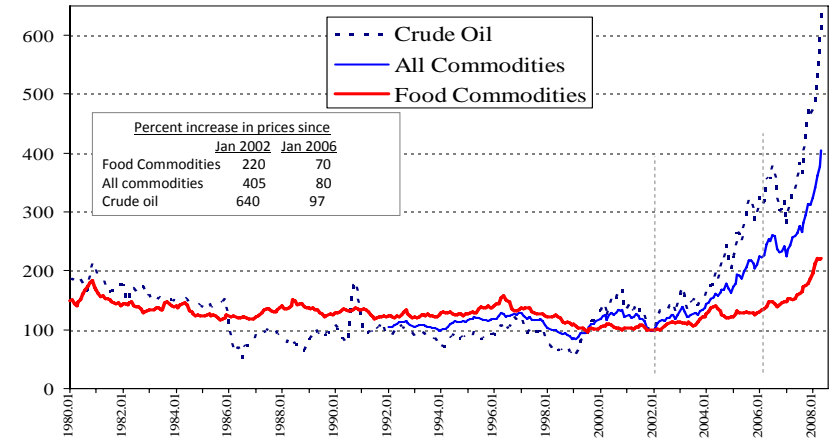


Source: Economic Research Service

5

Prices of many commodities rose: Crude oil up 640 % since January 2002

Index: January 2002 = 100



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

Source: Economic Research Service

6

Supply and Utilization

- Growing food demand and a dietary transition to more animal protein in developing countries has resulted in global consumption of commodities growing faster than production
- The world has moved from surpluses in the 80s and 90s to shortages in recent years

7

Adverse weather reduced crop production in 2006 and 2007

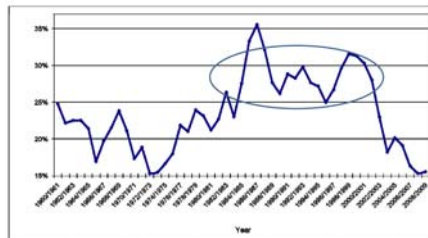
- Ukraine & Russia: drought for 2 years
- Australia: severe drought for 2 years
- Europe: dry spring; harvest floods
- SE Europe: drought
- NW Africa: drought
- USA: late spring freeze
- Canada: hot and dry
- Turkey: dry

8

Supply

The supply shocks of today were on top of very low stocks-to-use ratios that started in the 2002/2003 marketing year

Stocks-to-Use Ratio for Total Grains in the World (1960-2009)



Source: Farm Foundation

9

Utilization

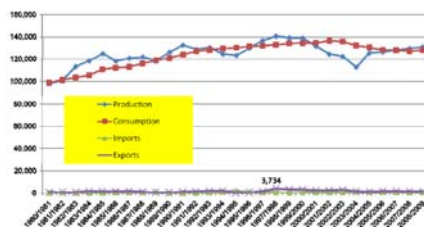
- Contrary to popular belief India and China are not significant global importers or exporter of agricultural commodities
- Brazil is a major commodity exporter
- The situation in Russia depends on the weather

10

China

Rice production and consumption are equal with virtually no trade

China Rice Production/Consumption/Trade (1,000 mt)



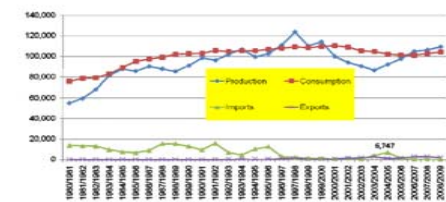
Source: Farm Foundation

11

China

Wheat Production and Consumption are equal with virtually no trade

China Wheat Production/Consumption/Trade (1,000 mt)

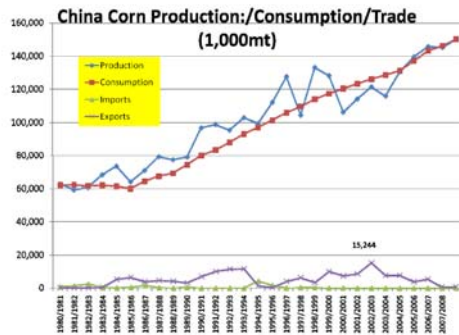


Source: Farm Foundation

12

China

Corn production and consumption are the same with virtually no trade

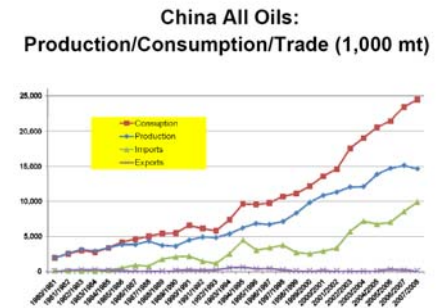


Source: Farm Foundation

13

China

Soybean consumption is growing faster than production and China is a significant importer of soybeans



Source: Farm Foundation

14

Agricultural Research

Lower investment in agricultural research and application of existing technology has led to lower growth in productivity in commodity production

C.H. Moore Agricultural Research Station



15

Global Potential Supply Response

- A large potential supply response could come from developing country farms
- Most poor farmers are net agricultural product buyers
- Food policy measures need to handle short-term food problems without destroying long-term incentives

16

Speculation in Commodity Markets

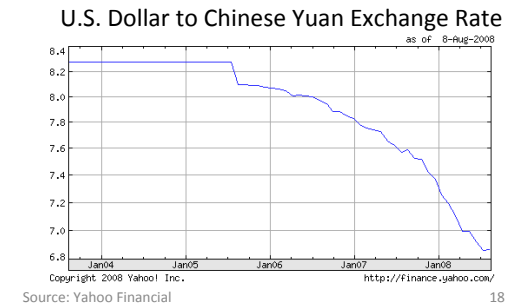
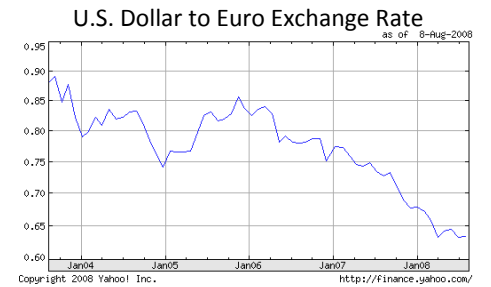
- Price volatility has increased
- Little research evidence that the level of commodity prices has been affected by the increased amount of speculative activity



17

U.S. Dollar Depreciation

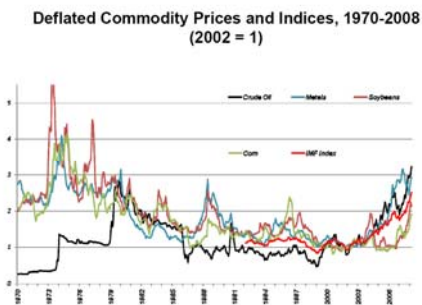
- Link between exchange rates and commodity prices are important
- U.S. trade deficit is an important driver of U.S. \$ depreciation



18

Deflated Commodity Prices

- Oil and agricultural commodities are priced in U.S. \$ but are purchased in local currencies



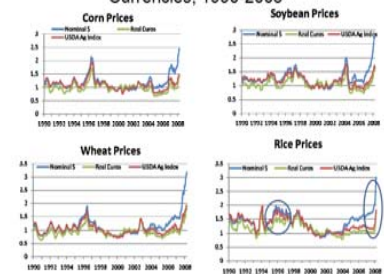
Source: Farm Foundation

19

U.S. \$ Depreciation

- From 2002 to 2008 nominal dollar percent increases for grains, crude oil and gold were more than 3 times equivalent in other deflated currencies
- Exchange rates played a key role in current price run-ups

Agricultural Commodity Price Indices in Various Currencies, 1990-2008



Source: Farm Foundation

20

Global Food Price Impacts

- Current food price increases and the depreciating dollar are bringing stronger global inflationary pressures
- In the U.S. food expenditures are about 10% of consumption expenditures
- In poor countries, where food riots have occurred food share of consumer expenditure is above 60%
- We have yet to see the full transmission of grain and oilseed price increases into animal product food items

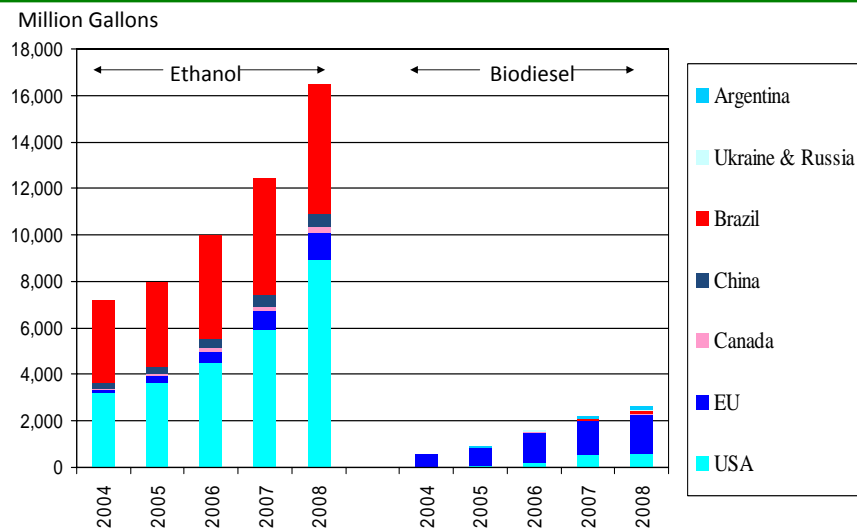
Biofuels

- Biofuels programs in the U.S. and Europe have stimulated increases in the prices of these commodities
- Higher oil prices have been driving corn prices

South Dakota Ethanol Plant



Biofuels production: Largest producers



Source: Economic Research Service
Source: USDA Agricultural Projections to 2017

World Corn Use

Global increase in demand for corn has come from growth in U.S. use of corn for ethanol

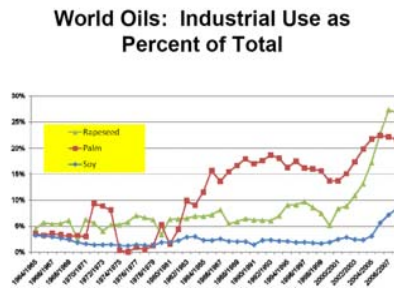
World Corn Use - Feed and FSI (1,000mt)



Source: Farm Foundation

World Oils Use

- Global increase in rapeseed oil is due to European biodiesel use
- Palm and soy oils increases are food and industrial use related

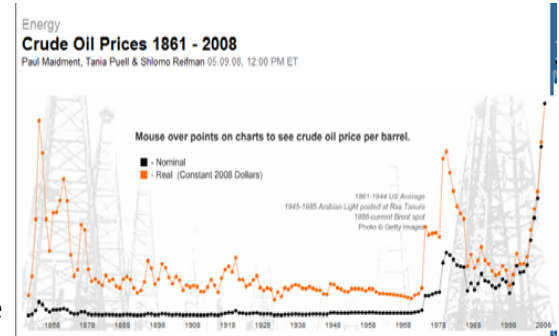


Source: Farm Foundation

25

Historical Crude Oil Prices

- Increases in price of crude oil thus far have had a demand-side impact on corn prices
- Supply-side impacts will occur through increases in the price of fertilizer, diesel, propane, chemicals and other inputs



Source: Forbes.com

26

Categories of factors contributing to higher food commodity prices

Temporary factors:	Structural changes:	Continuation of long-term trends:	Questionable future impact:
<ul style="list-style-type: none"> ➤ Adverse weather ➤ Trade policies by exporters and importers ➤ Aggressive buying by importers 	<ul style="list-style-type: none"> ➤ High oil prices ➤ Biofuels production ➤ High ag production costs 	<ul style="list-style-type: none"> ➤ Rapid economic growth in many developing countries ➤ Population growth in developing countries ➤ Increasing per capita meat consumption 	<ul style="list-style-type: none"> ➤ Further dollar depreciation ➤ Slower growth in ag productivity ➤ Role of large foreign exchange reserves held by importers

➤ Supply factors in green
➤ Demand factors in brown

Source: Economic Research Service

27

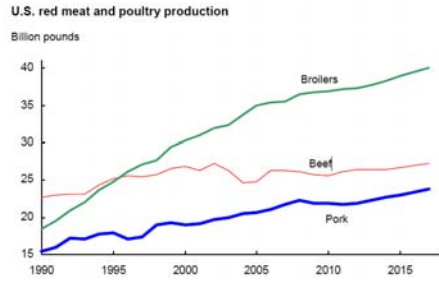
Short-term Livestock and Poultry Situation

- Beef production steady
 - Higher feed costs are offset somewhat by the use of distillers grains
- Pork production declines
 - Higher feed costs
 - Integration of U.S. and Canadian markets
- Poultry production slows
 - Higher feed costs
 - Rising exports

28

Long-term Livestock and Poultry Situation is Promising

- Assumptions
 - Feed grain prices fall with global production increase
 - Exports increase as consumers in developing countries shift to a more protein-based diet
 - Exports will offset declines in U.S. consumption

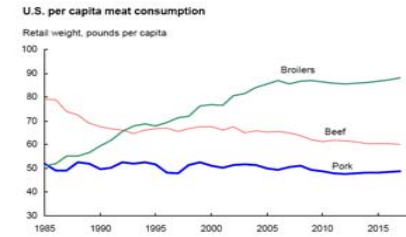


Source: Economic Research Service

29

U.S. Consumers will Reduce Consumption

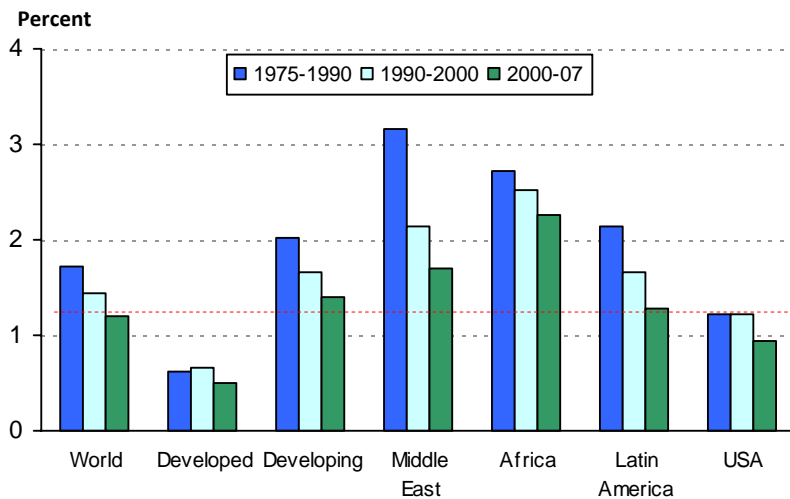
- U.S. consumers faced with higher consumer prices will respond by lowering consumption
- U.S. consumers will have to compete for everything, everywhere, from everyone



Source: Economic Research Service

30

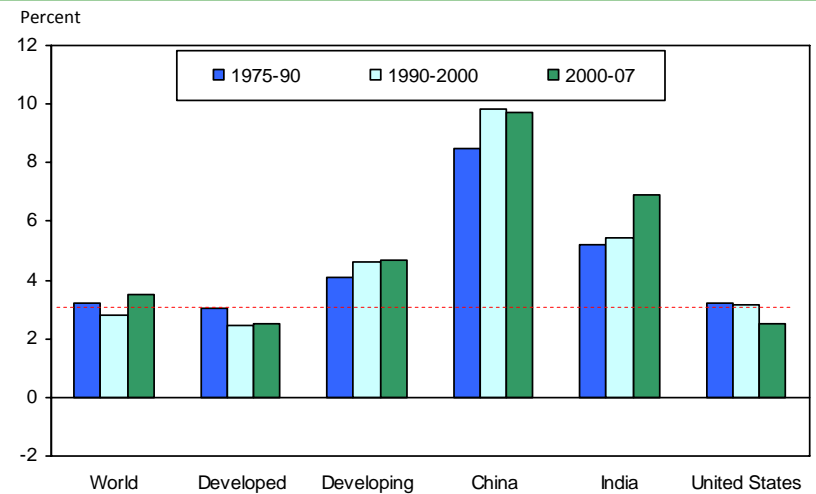
Population growth rates decline (Percent by period)



Source: Economic Research Service
Source: USDA Agricultural Baseline Projections to 2017

31

Strong economic growth Average Real GDP growth rates

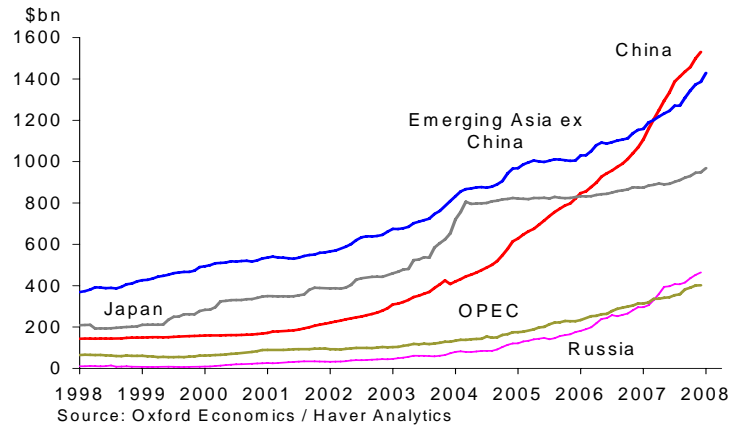


Source: Economic Research Service

32

Foreign Exchange Reserves

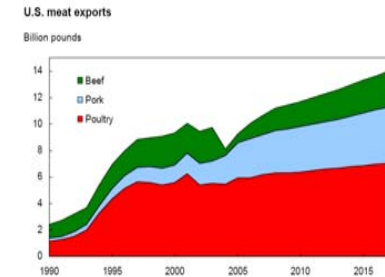
Emerging Asia: Foreign exchange reserves



33

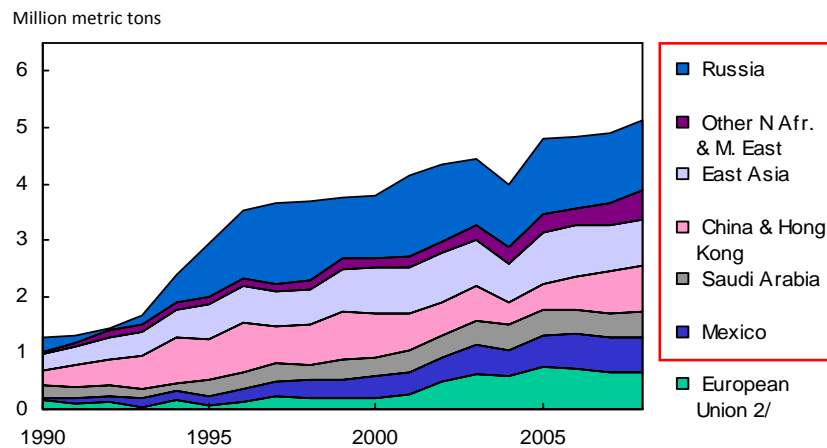
U.S. Meat Exports

U.S. meat exports will offset declines in domestic consumption



34

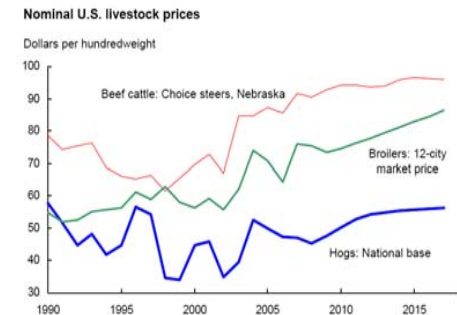
Poultry imports 1/



35

U.S. Livestock and Poultry Prices

U.S. livestock and poultry prices will move higher reflecting production adjustments in response to higher feed costs



36