



The World Food Situation

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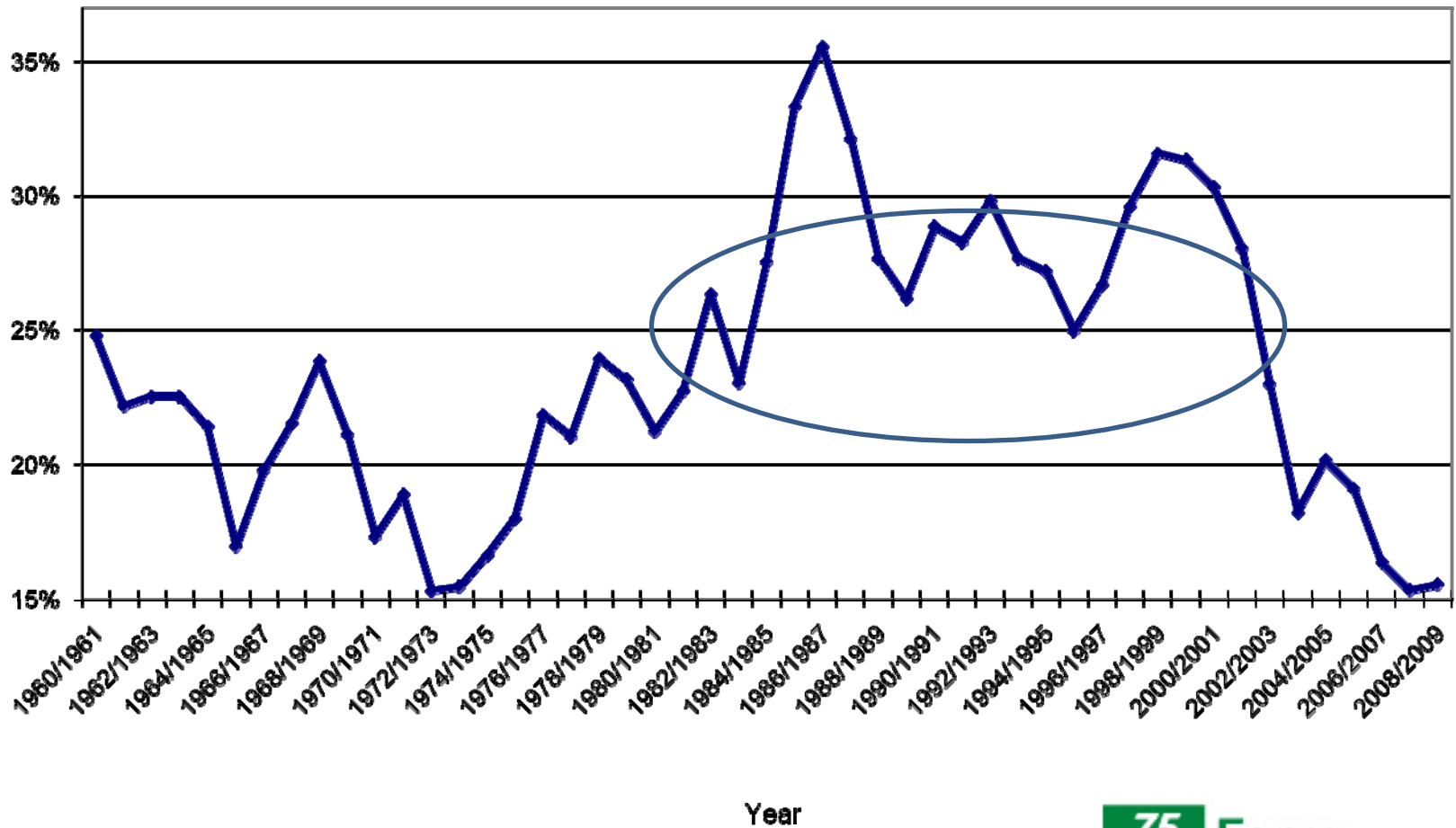
What's Driving Food Prices

- Farm Foundation Report by Wally Tyner, Phil Abbott and Chris Hurt of Purdue University highlighted 3 major themes:
 - supply and utilization shifted from surplus to shortage but differs by commodity in relative importance and underlying causes
 - the linkages of surging commodity prices with the falling U.S.\$ exchange rate
 - the new linkage between energy and agricultural markets

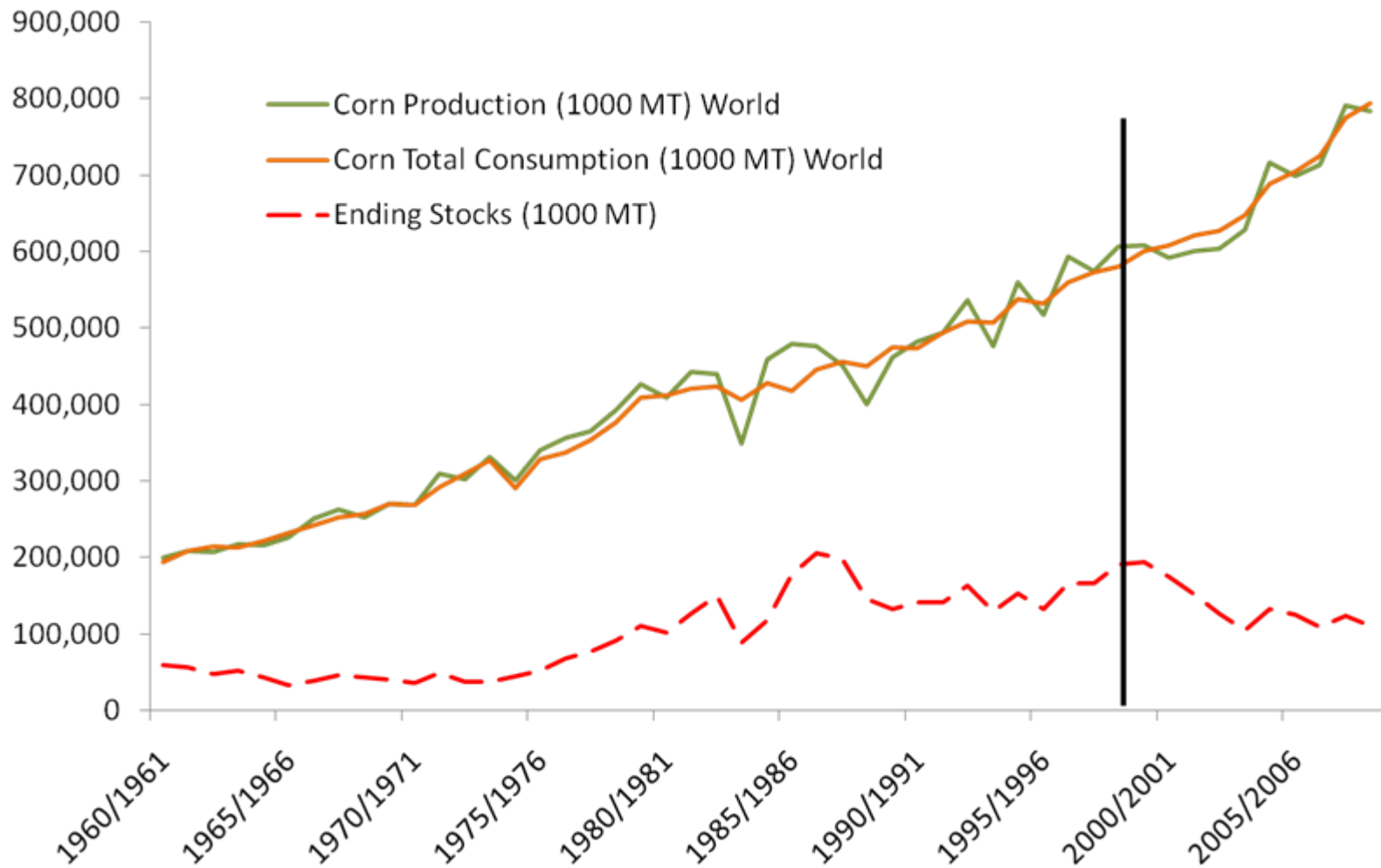
Global Production Shortfalls

- *Weather and crop disease issues in 2006-2007 made an already difficult situation worse.*
 - The shocks had large price impacts because the stocks-to-use ratio was already very low. Under normal circumstances, these shocks would have had a minor impact on prices.
 - The reactions of many traders to isolate their domestic markets made the situation much worse. This is particularly the case for rice, which is so thinly traded.

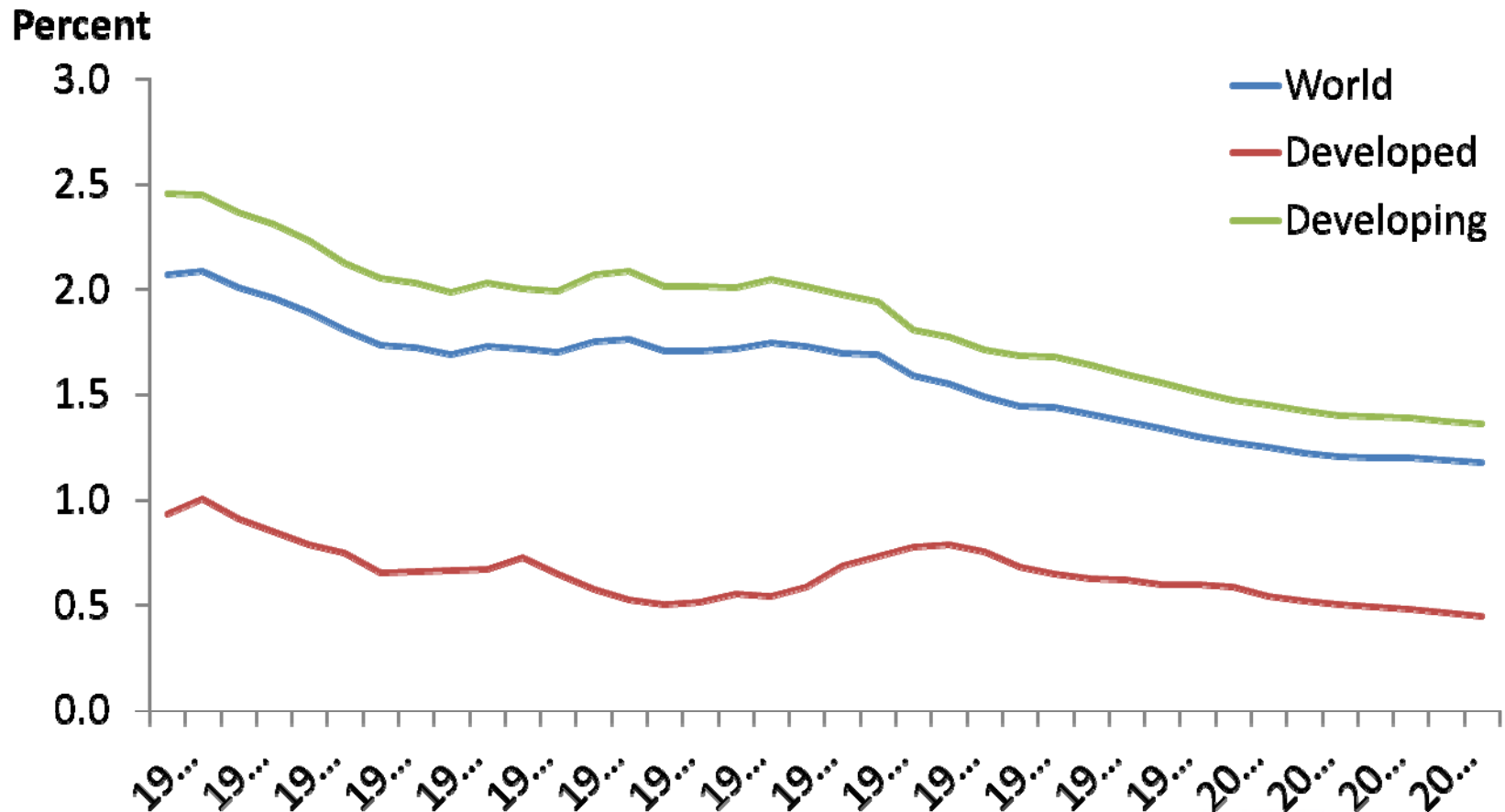
Stocks-to-Use Ratio for Total Grains in the World (1960-2009)



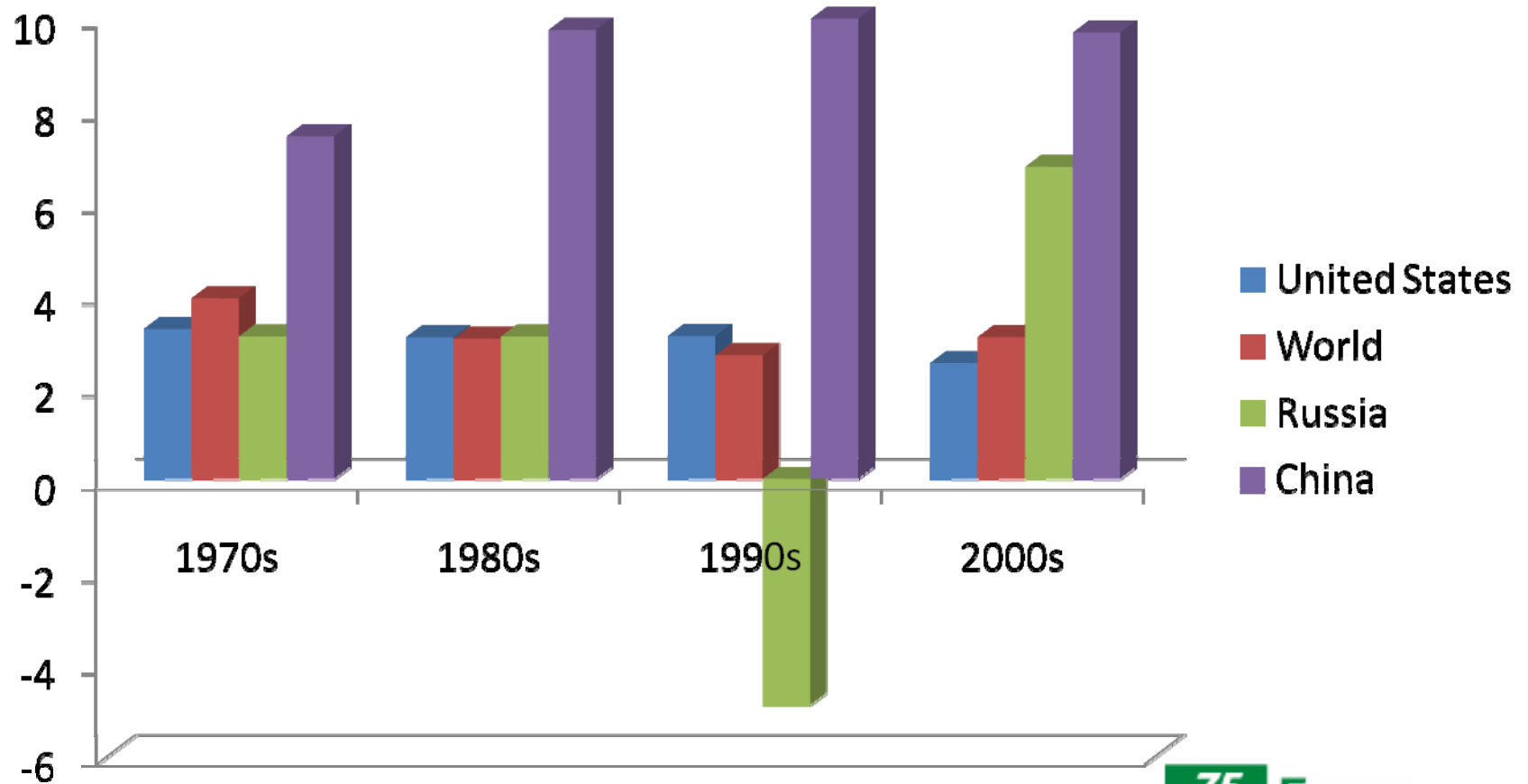
World Corn Production and Consumption



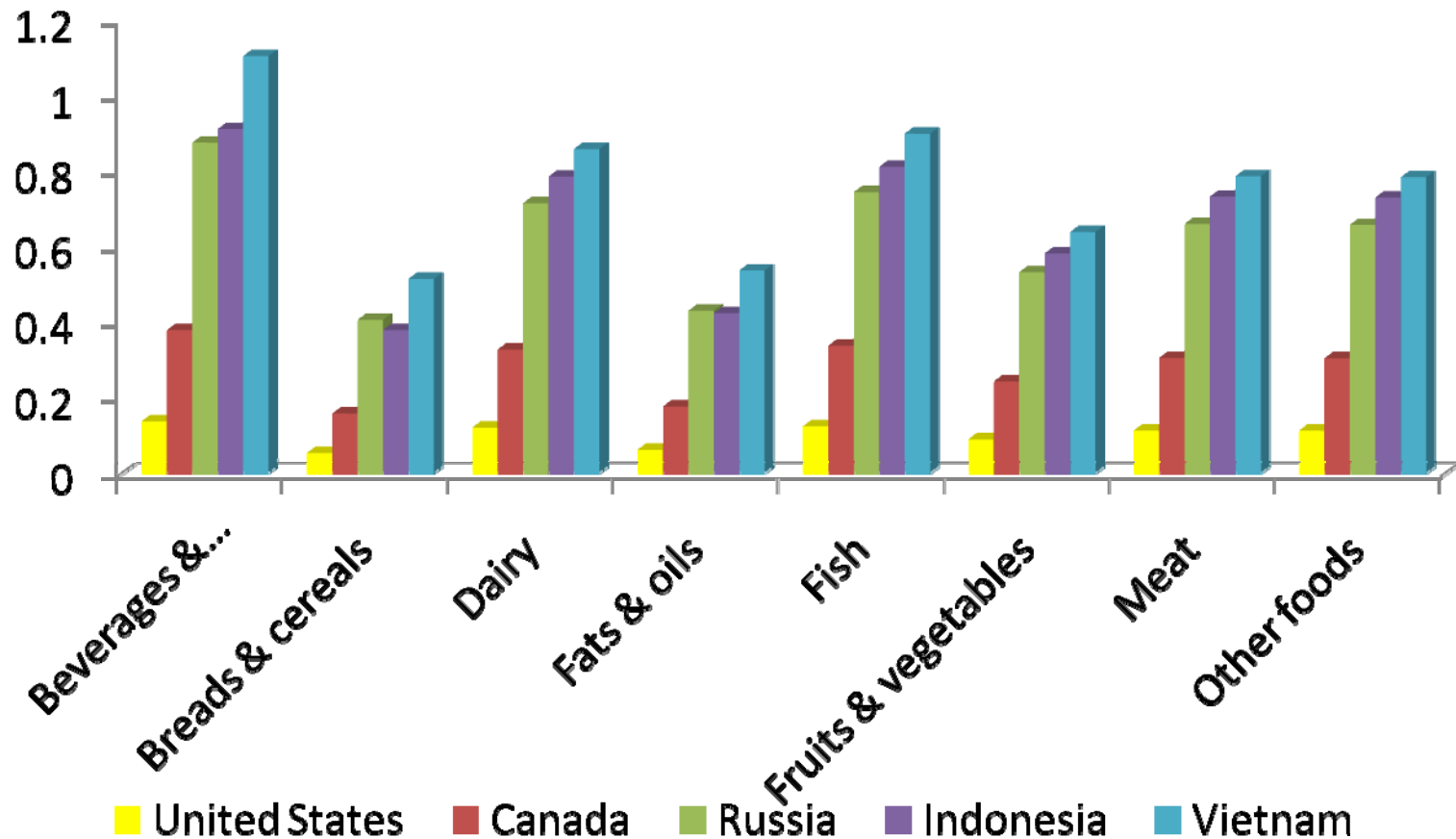
Population growth rates are slowing



But real GDP growth rates rose



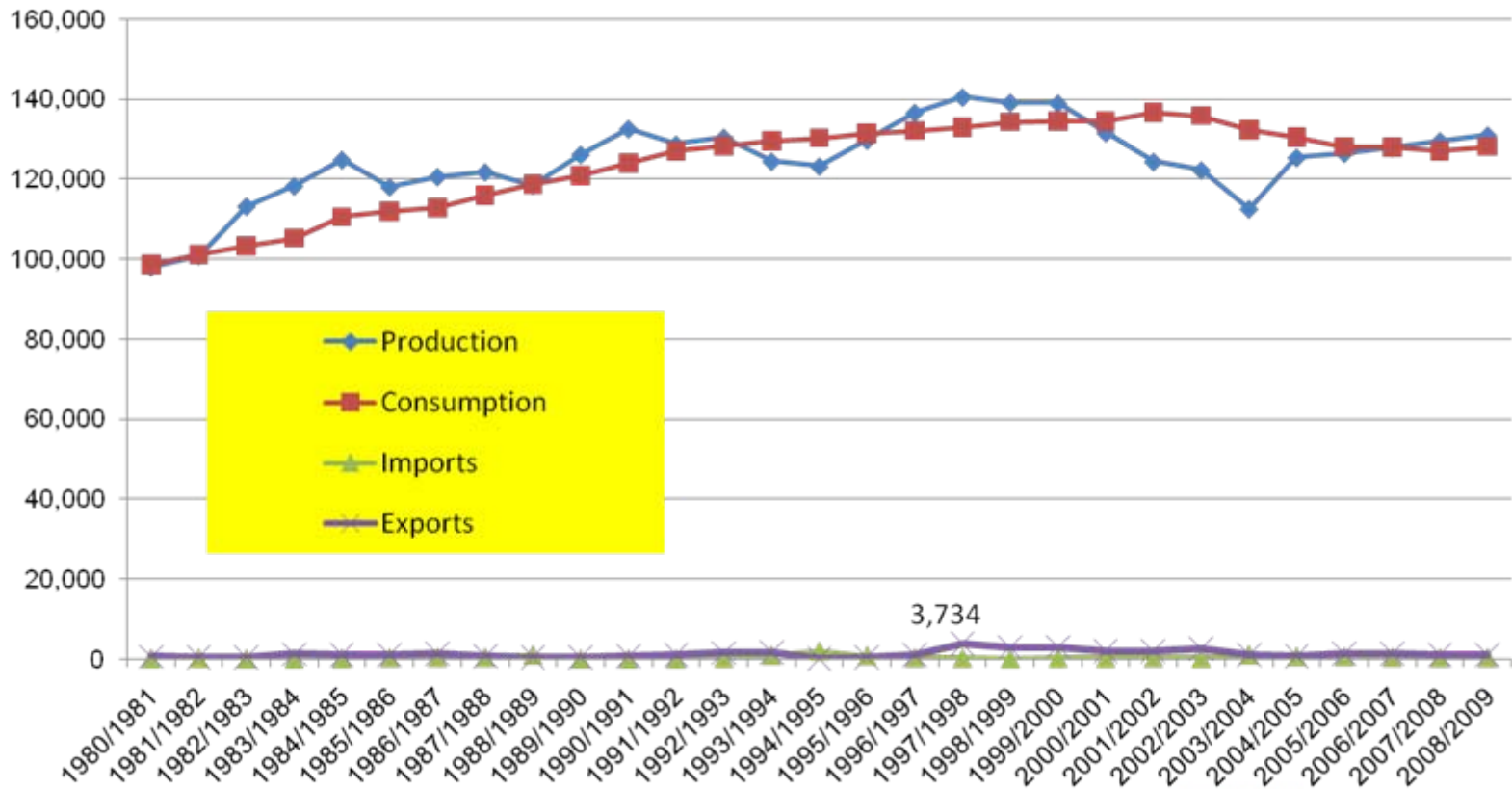
Income Elasticity of Demand for Food Subgroups



Regmi, Anita *Changing Structure of Global Food Consumption and Trade*
USDA, Economic Research Service, WRS No. (WRS01-1) May 2001

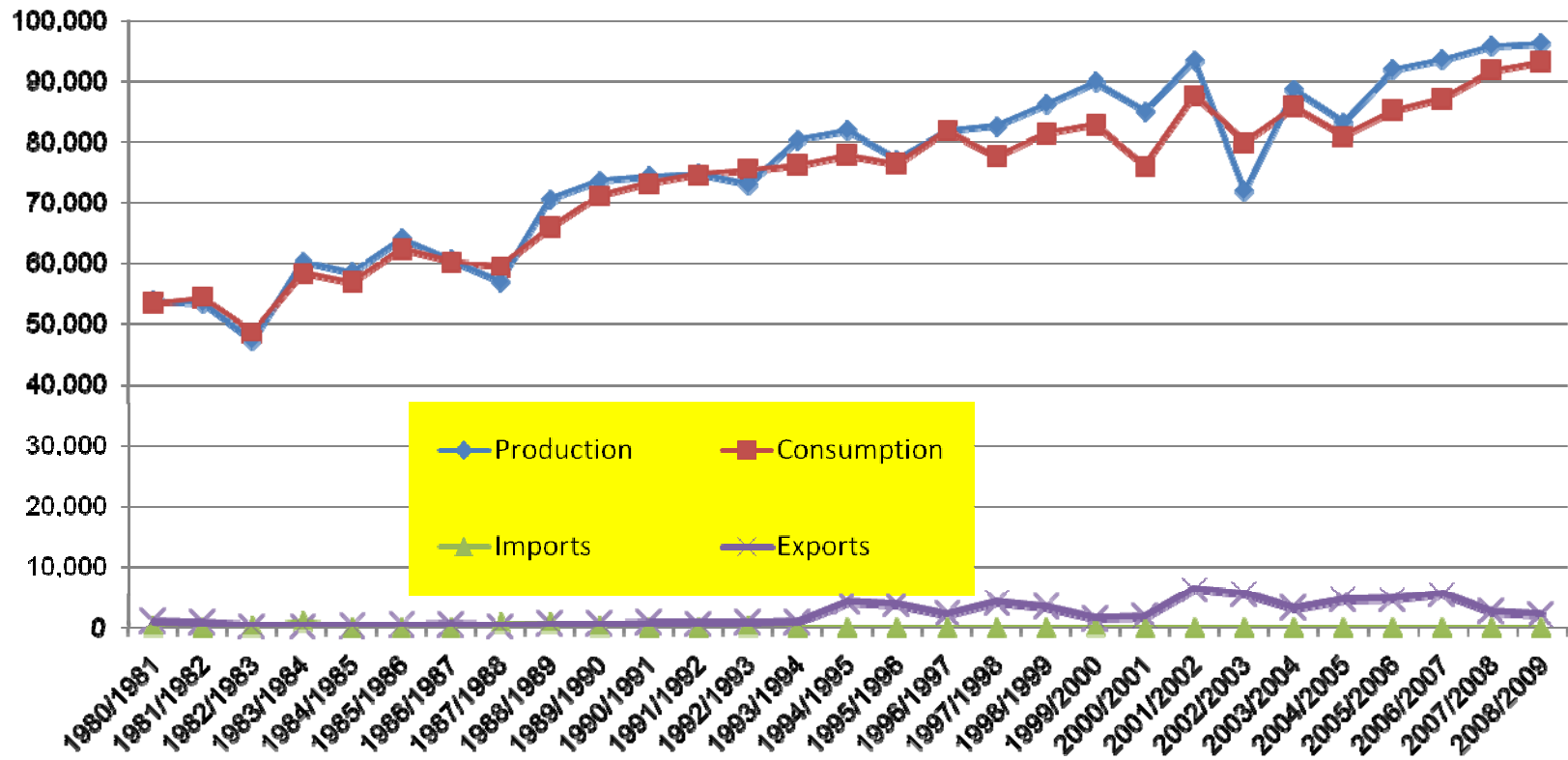
China Rice

Production/Consumption/Trade (1,000 mt)



India Rice

Production/Consumption/Trade (1,000 mt)

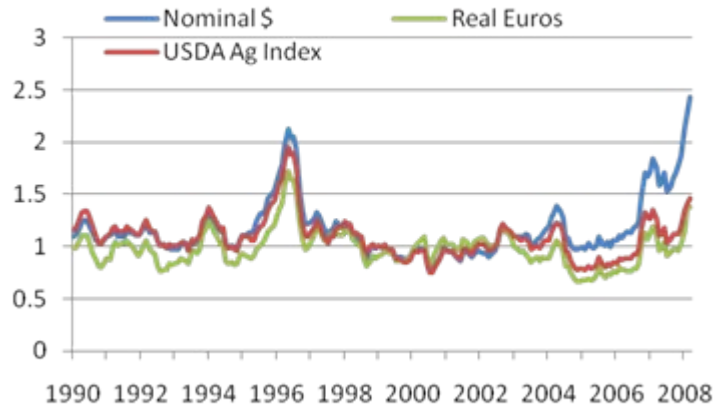


U.S.\$ Depreciation

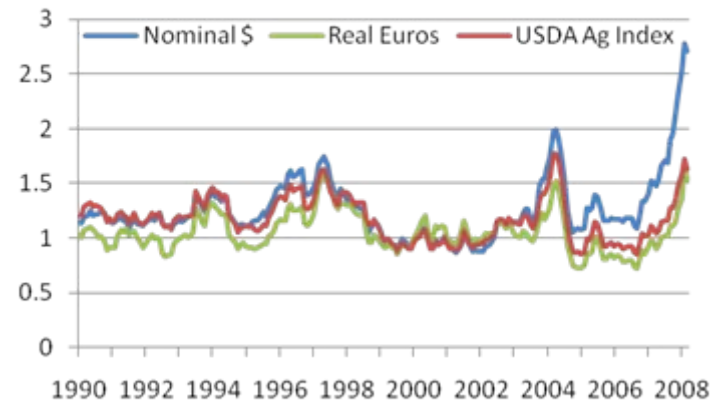
- Exchange rates have played a key role in the current price run-ups.
- For the 1994 to 1997 period, price changes are similar in the three currency measures--strong evidence that price run-ups in the mid-1990s were largely driven by supply-utilization factors, with exchange rates playing almost no role.
- For the period 2002 to 2008 nominal dollar price increases for corn, soybeans and its products, wheat, and rice, as well as crude oil and gold are typically more than three times equivalent changes in other, deflated currencies.

Agricultural Commodity Price Indices in Various Currencies, 1990-2008

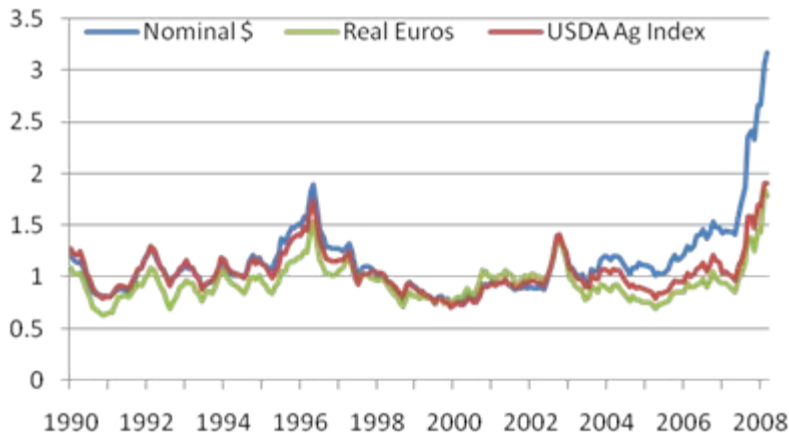
Corn Prices



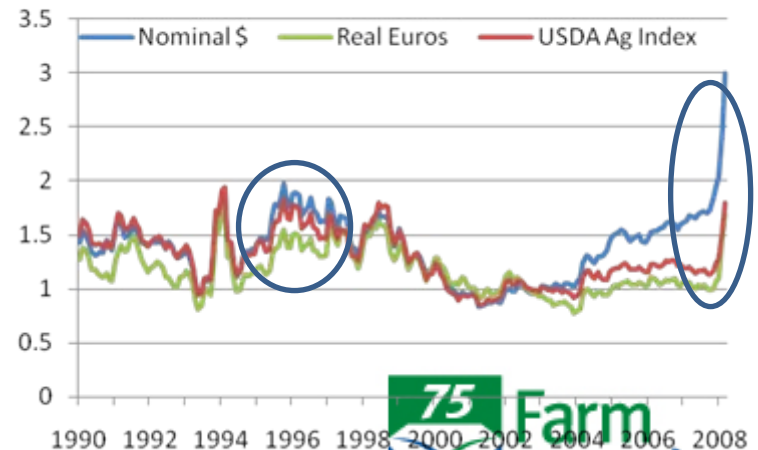
Soybean Prices



Wheat Prices



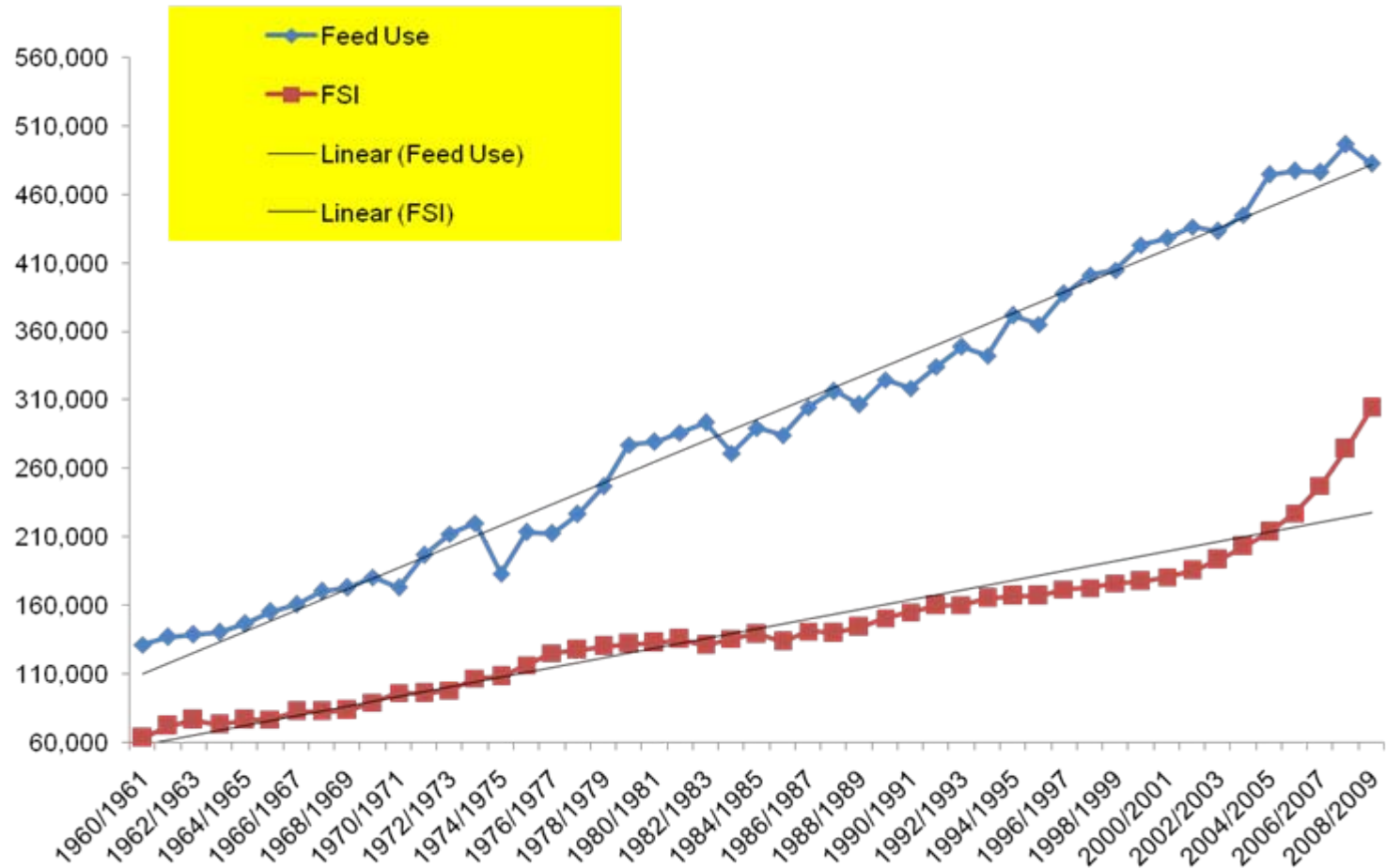
Rice Prices



Biofuels

- Higher oil prices have been driving corn prices.
 - Higher crude leads to higher gasoline, which increases the demand for ethanol, which provides incentives to build more ethanol plants, which increases the demand for corn. Higher corn demand leads to higher corn price.
- The U.S. ethanol subsidy and import tariff have contributed to increased corn prices. The lower U.S.\$ has also contributed.
- Up to this point, the ethanol mandates have not been binding, so have had little or no impact on corn prices or ethanol production.

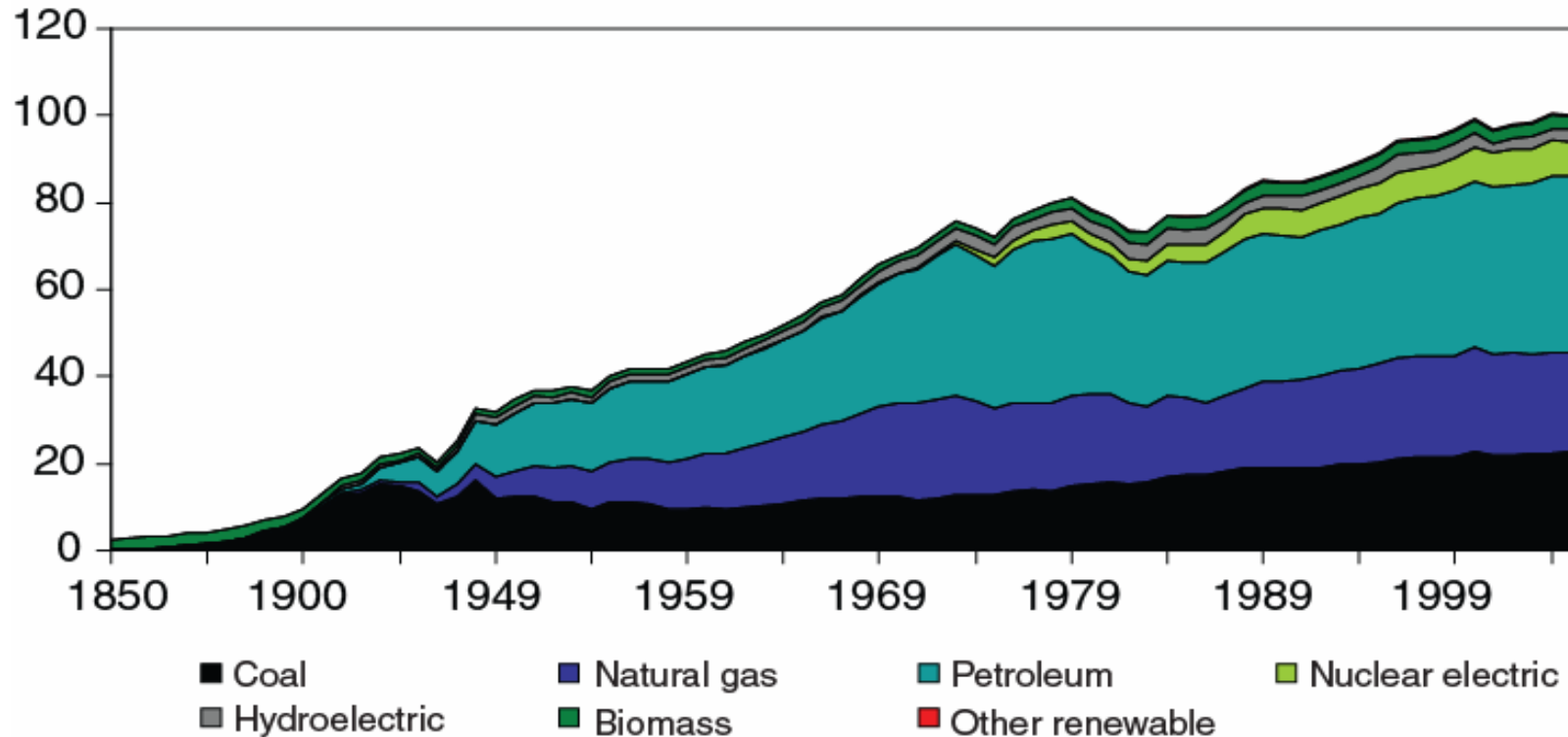
World Corn Use - Feed and FSI (1,000mt)



Energy consumption—the implications for agricultural resources

Energy consumption by source

Quadrillion BTUs



Note: Time scale 5 years prior to 1949.

Source: Energy Information Agency Annual Survey Review, 2001, 2005.



What's Driving Food Prices?

- The complete report is available at:
- www.farmfoundation.org

Looking Forward

- Short term commodity price fluctuations related to volatility in financial and currency markets
- Absent global economic depression, resource demand will increase
 - Food
 - Energy
 - Environment
- Adjusting our thinking—from surplus to scarcity