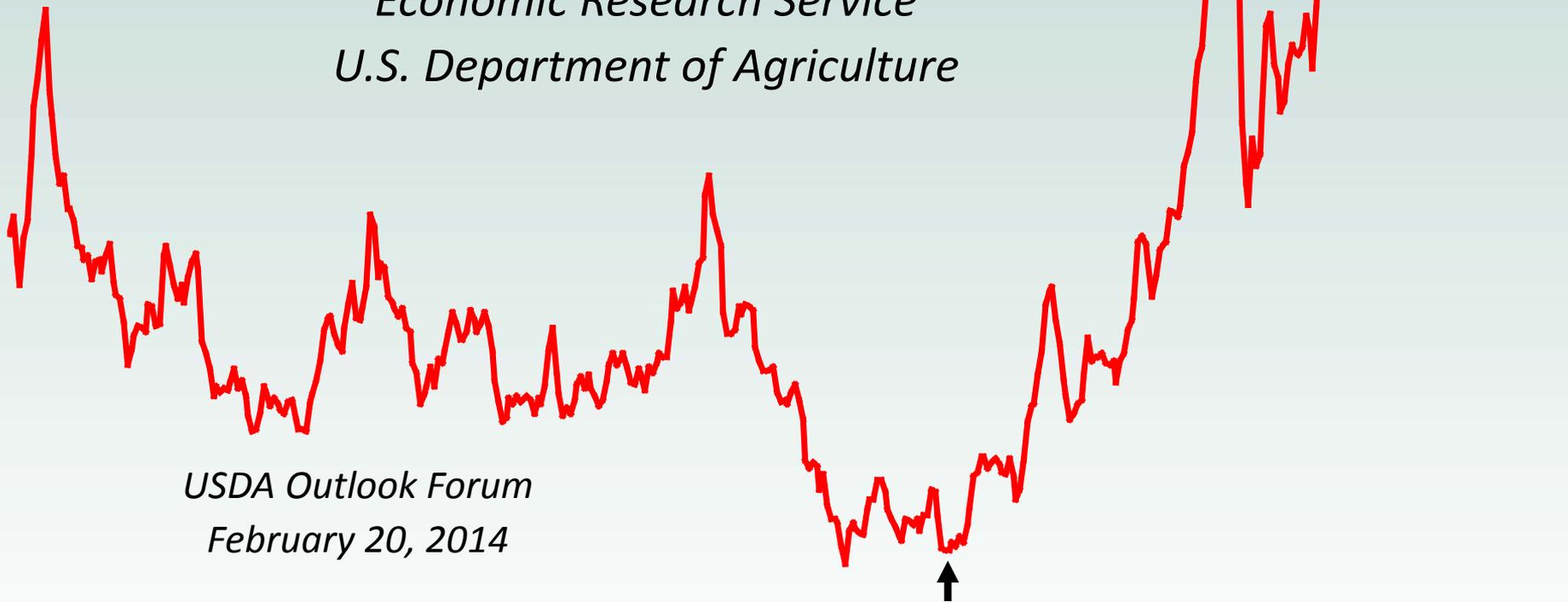


Food commodity prices: History & prospects

*Ron Trostle
Economic Research Service
U.S. Department of Agriculture*



*USDA Outlook Forum
February 20, 2014*



Food commodity prices since January 1980: Reversal of a 22-year downward trend in 2002

Index: January 2002 = 100

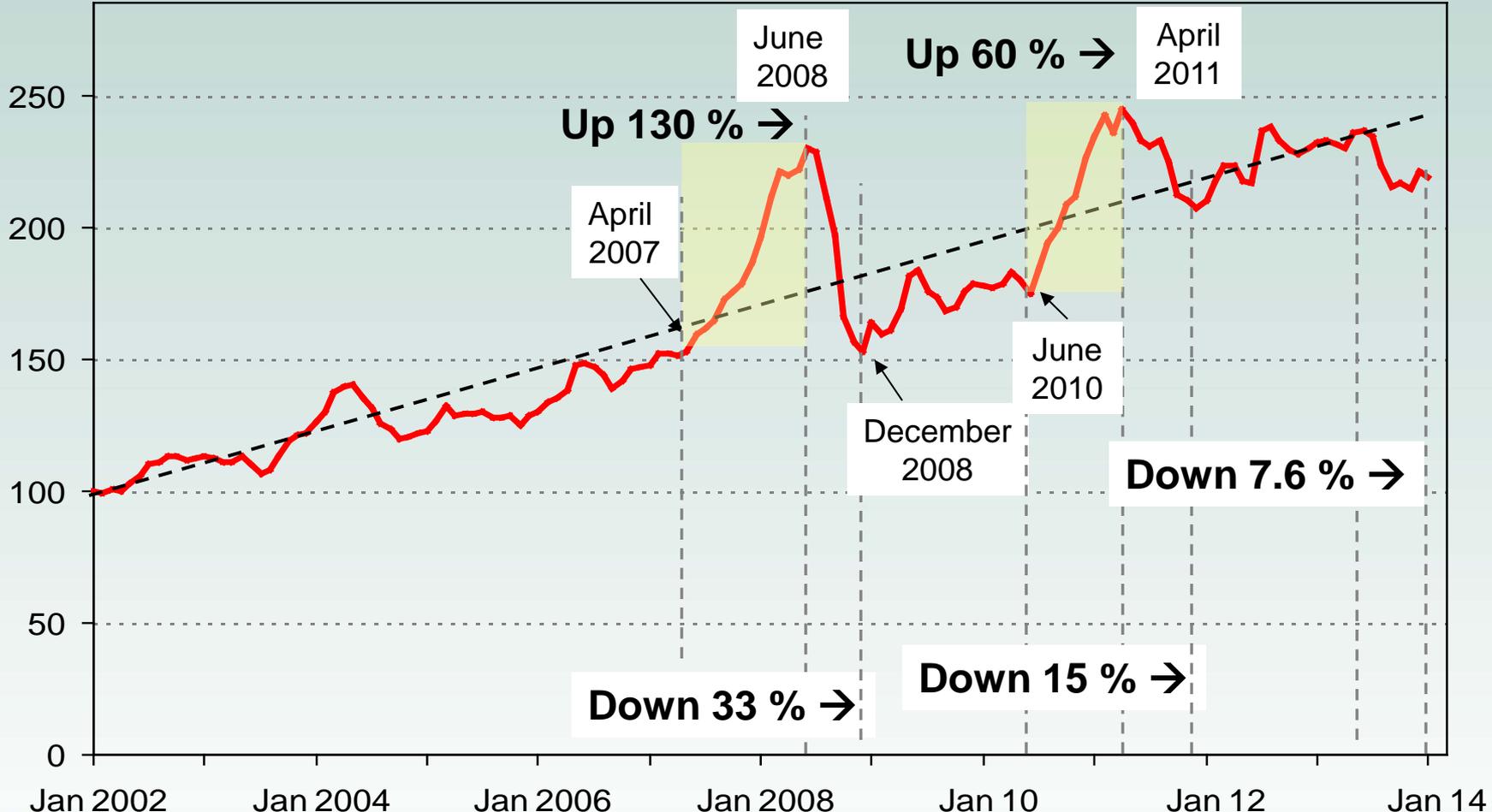


Source: International Monetary Fund: International Financial Statistics. January 2014



Food-commodity prices since January 2002: an upward trend and two spikes

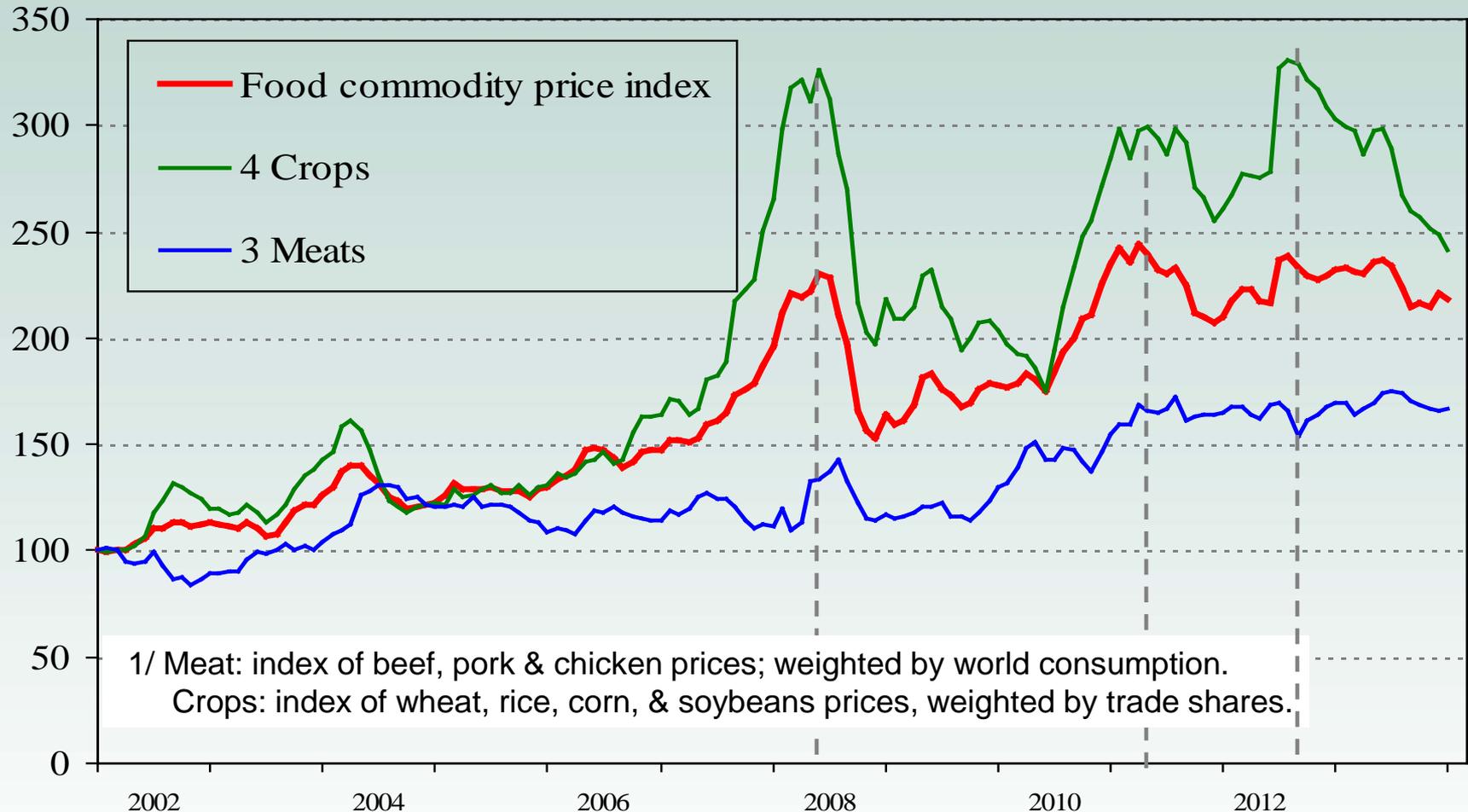
Index: January 2002 = 100



Source: International Monetary Fund: International Financial Statistics. January 2014
United States Department of Agriculture, Economic Research Service

Livestock prices have become a more significant factor in food commodity prices^{1/}

Index: January 2002 = 100



Factors contributing to fluctuations in food commodity prices

Economy wide

Ag sector

Short-term disruptions

>	Exchange rate (LT & ST)
>	Oil price

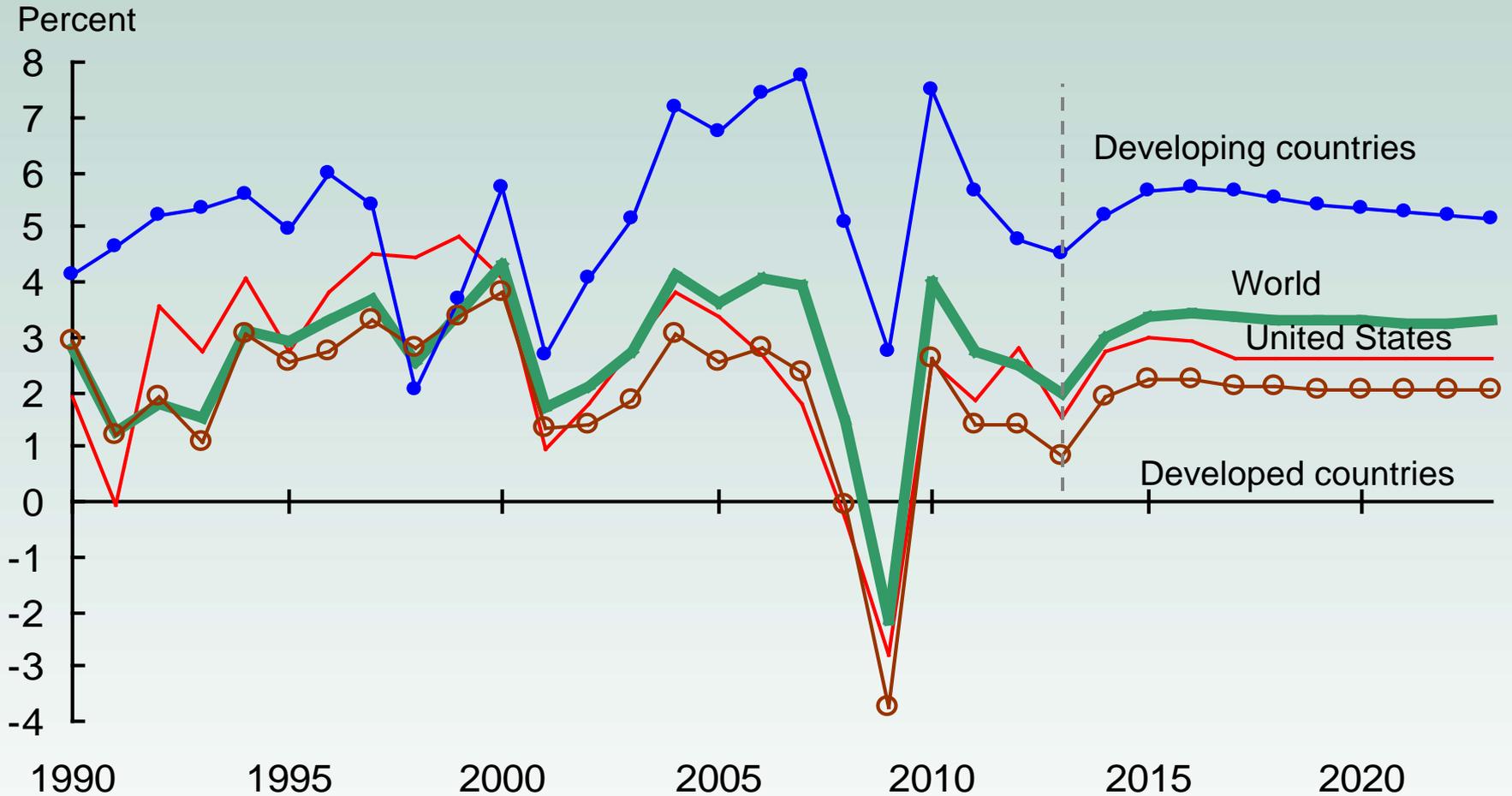
>	Weather → production
>	Stock-to-use ratio
>	Exporters' policy response
>	Importers' policy response

Long-term trends

>	Economic growth
>	Increasing population
>	Cost of energy

>	Meat & dairy consumption
>	Global biofuel production
>	Productivity growth
>	Natural resource constraints

Economic growth (GDP)



Source: USDA Agricultural Projections to 2023, February 2014.



International Meat: Sum of reporting countries^{1,2}

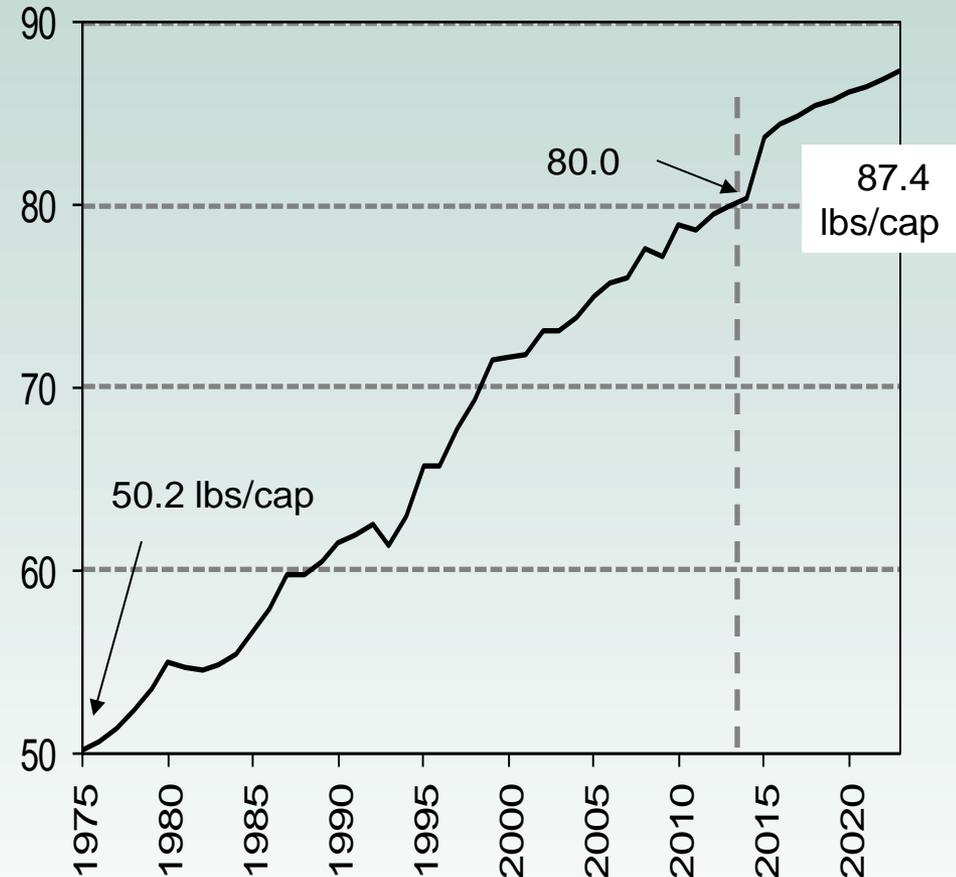
Production and per capita production

Exponential trend growth rates

	<u>1975-90</u>	<u>90-13</u>	<u>14-23</u>
Production	3.1	2.3	1.9
Population	1.7	1.2	1.0
Per capita production	1.4	1.1	0.9

- 1 Total meat = beef + pork + chickens & turkeys.
 2 Data are not reported in USDA's PS&D database for some small countries; therefore data are not a global total.

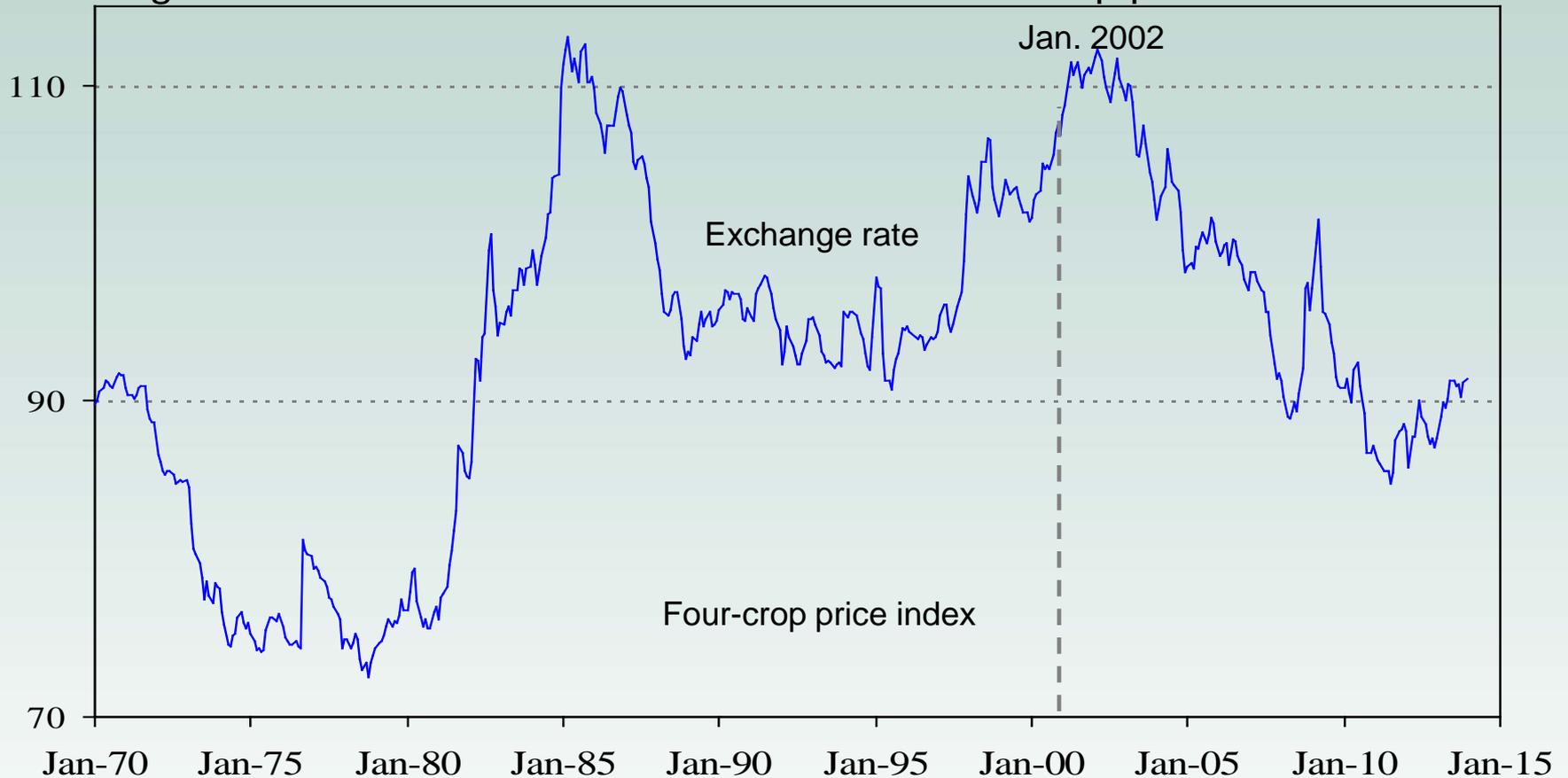
Per capita production



U.S. agricultural trade-weighted dollar exchange rate 1/

Exchange rate index: 2005 = 100

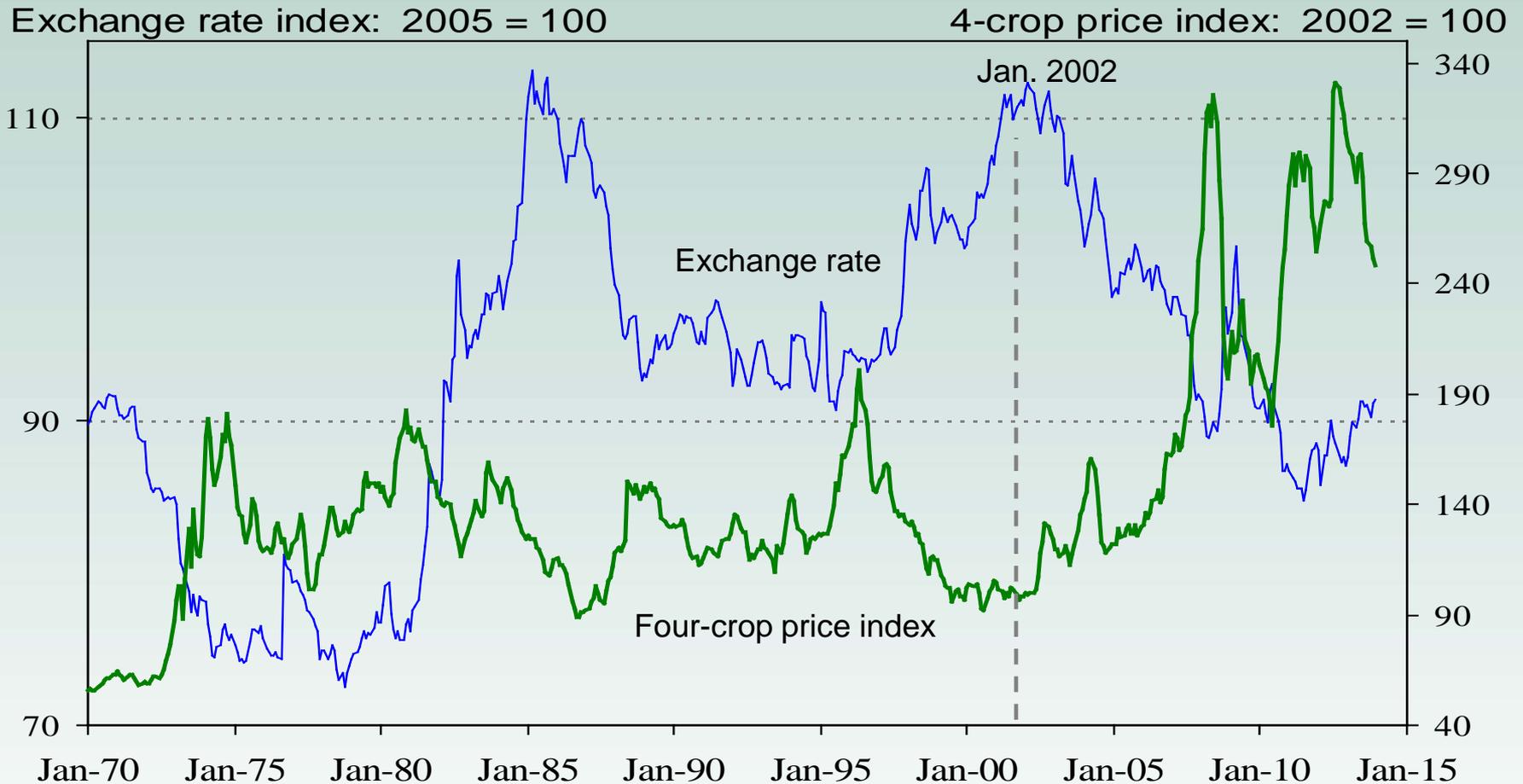
4-crop price index: 2002 = 100



1/ Real U.S. agricultural trade-weighted dollar exchange rate, using U.S. agricultural export weights, based on 192 countries.

Source: <http://ers.usda.gov/data-products/agricultural-exchange-rate-data-set.aspx>

U.S. agricultural trade-weighted dollar exchange rate and the 4-crop price index 1/

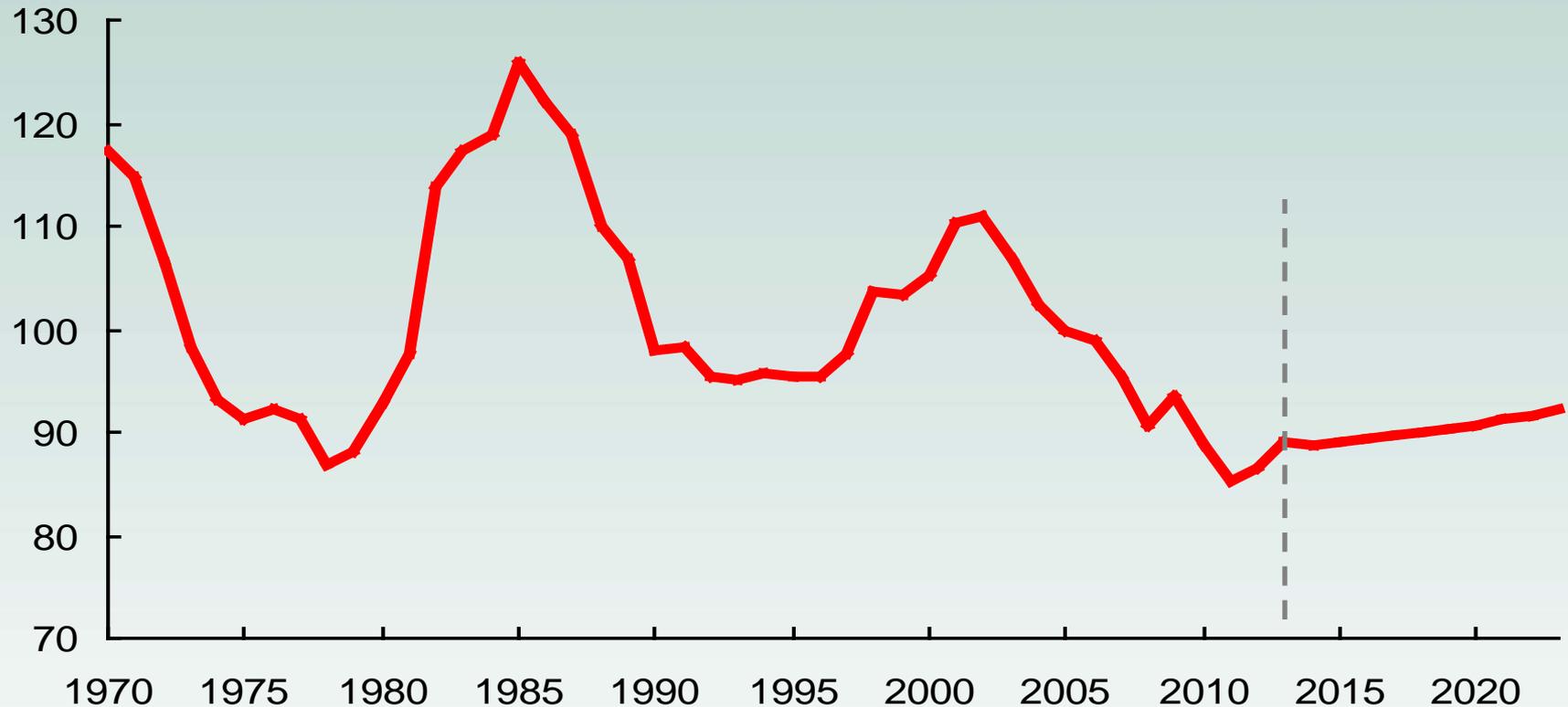


1/ Real U.S. agricultural trade-weighted dollar exchange rate, using U.S. agricultural export weights, based on 192 countries.

Source: <http://ers.usda.gov/data-products/agricultural-exchange-rate-data-set.aspx>

U.S. agricultural trade-weighted dollar exchange rate 1/

Index values, 2005=100



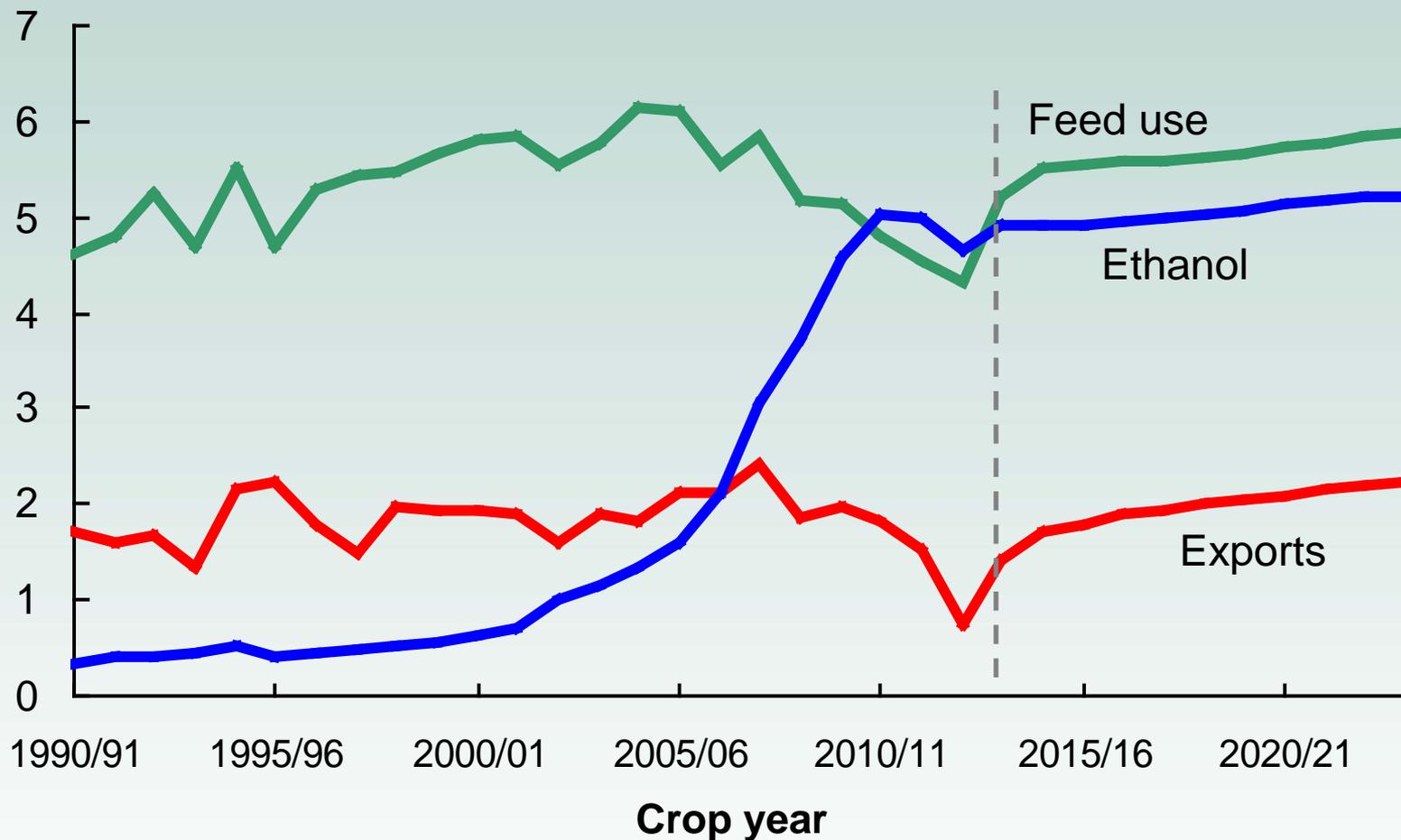
1/ Real U.S. agricultural trade-weighted dollar exchange rate, using U.S. agricultural export weights, based on 192 countries.

Source: *USDA Agricultural Projections to 2023*, February 2014.



U.S. corn use projections: Corn-based ethanol expansion slows

Billion bushels



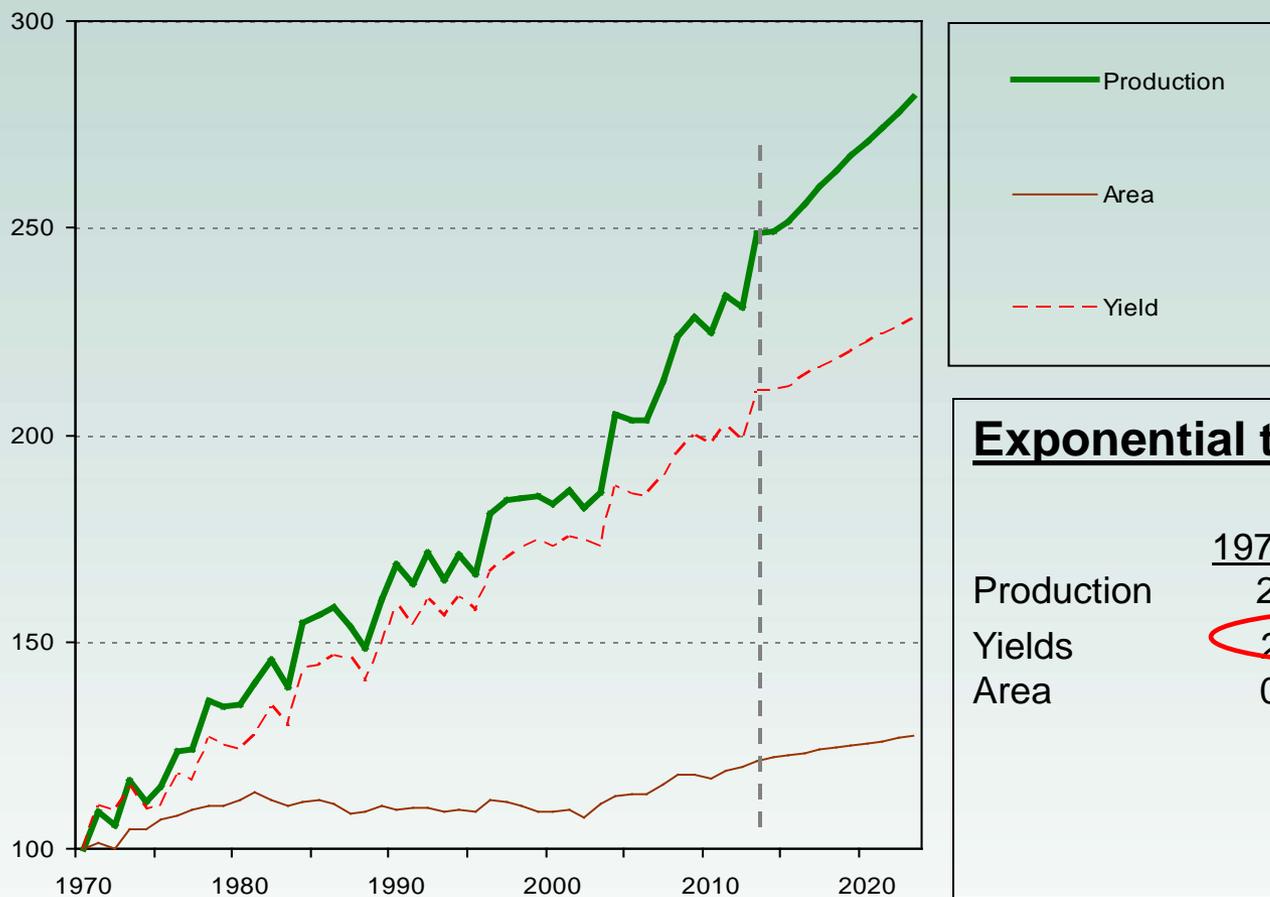
Source: USDA Agricultural Projections to 2023, February 2014.



Total world grain & oilseeds¹

Production, yield, area harvested

Index: 1970 = 100



Exponential trend growth rates:

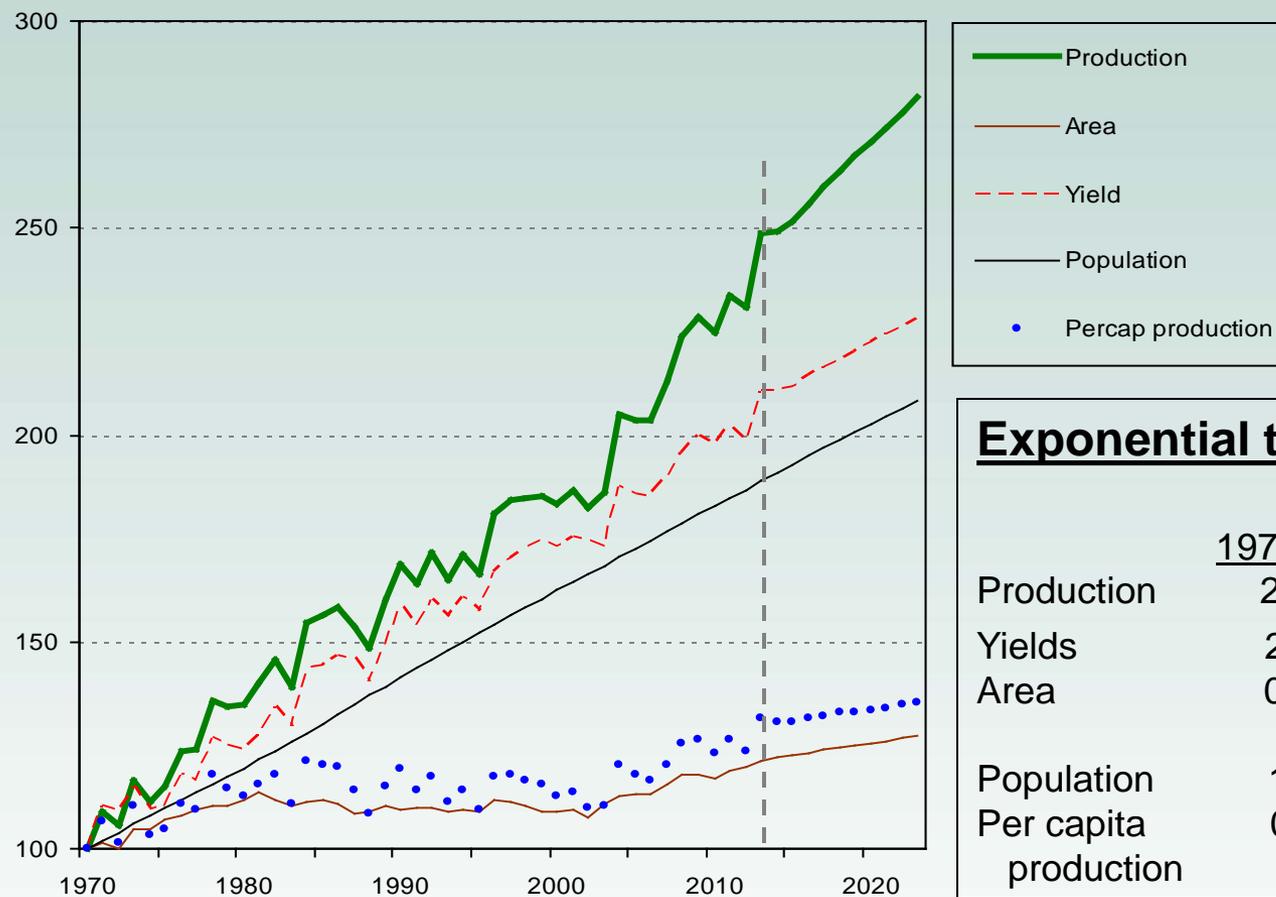
	<u>1970-90</u>	<u>90-2013</u>	<u>2014-23</u>
Production	2.43	1.72	1.39
Yields	2.02	1.29	0.91
Area	0.44	0.43	0.48

¹ Oilseeds = soybeans + rapeseed + sunflowers

Total world grain & oilseeds¹

Production, yield, area harvested, population & per cap production

Index: 1970 = 100



Exponential trend growth rates:

	<u>1970-90</u>	<u>90-2013</u>	<u>2014-23</u>
Production	2.43	1.72	1.39
Yields	2.02	1.29	0.91
Area	0.44	0.43	0.48
Population	1.74	1.25	0.98
Per capita production	0.68	0.46	0.41

¹ Oilseeds = soybeans + rapeseed + sunflowers



Total world grain & oilseeds¹ Production

Index: 1970 = 100



¹ Oilseeds = soybeans + rapeseed + sunflowers

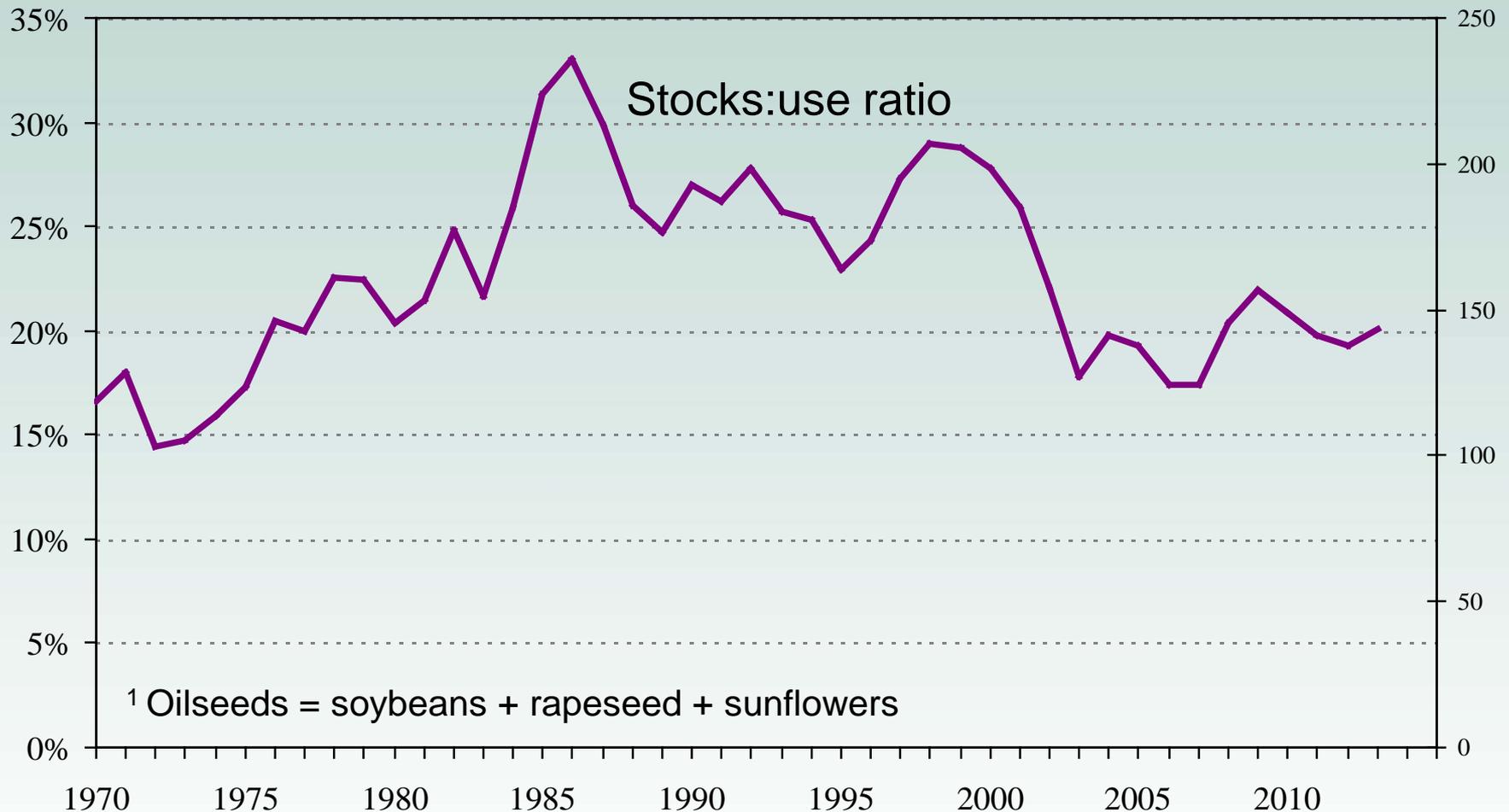


Source: Compiled from USDA's PS&D Database & Baseline Projections, Feb 2014
United States Department of Agriculture, Economic Research Service

Total world grain & oilseeds¹

Stocks-to-use ratio

Stocks / Use

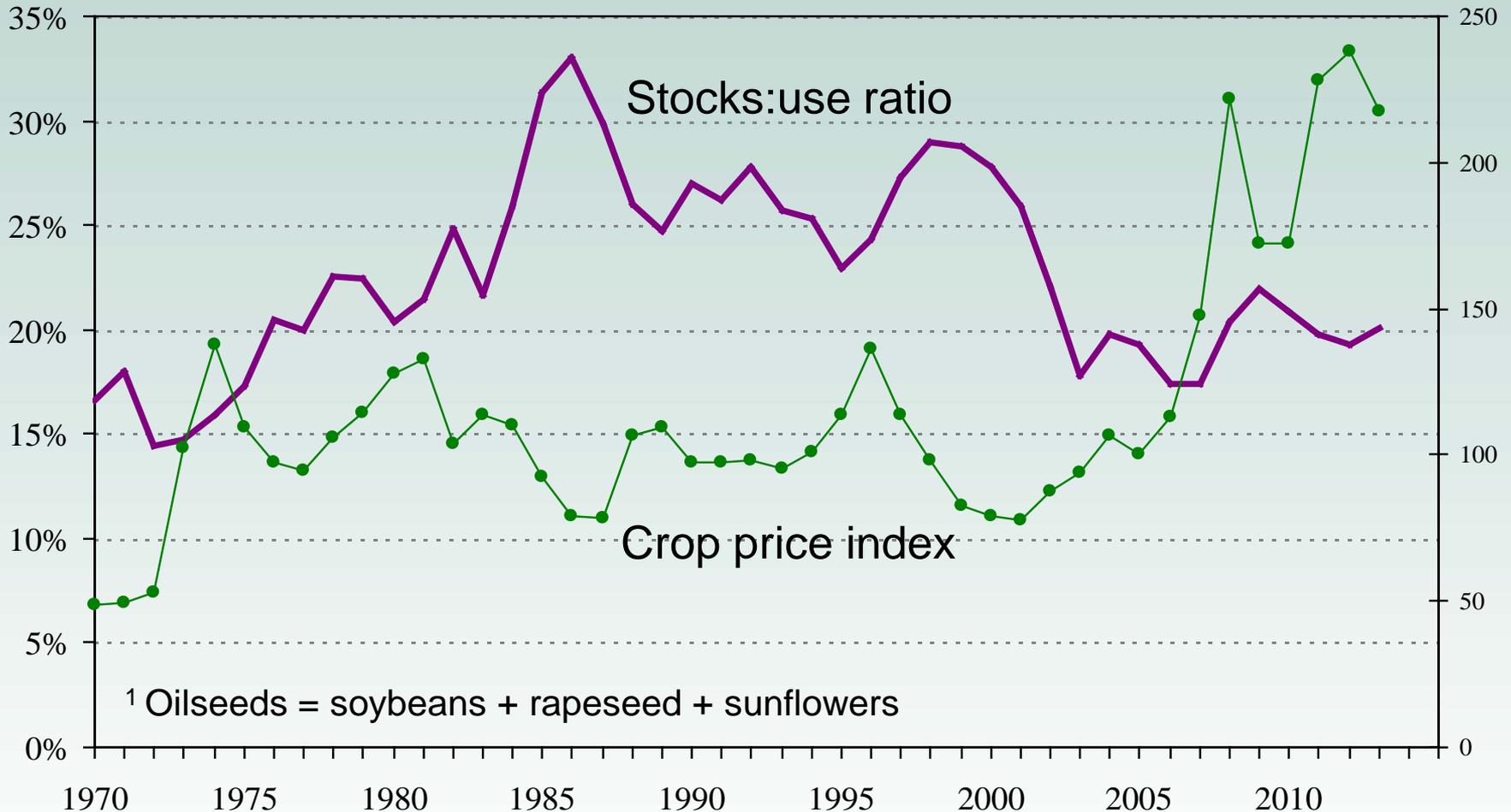


Total world grain & oilseeds¹

Stocks-to-use ratio and 4-crop price index

Stocks / Use

4-crop price index



¹ Oilseeds = soybeans + rapeseed + sunflowers



Source: USDA WASDE and PS&D Database: January 2014

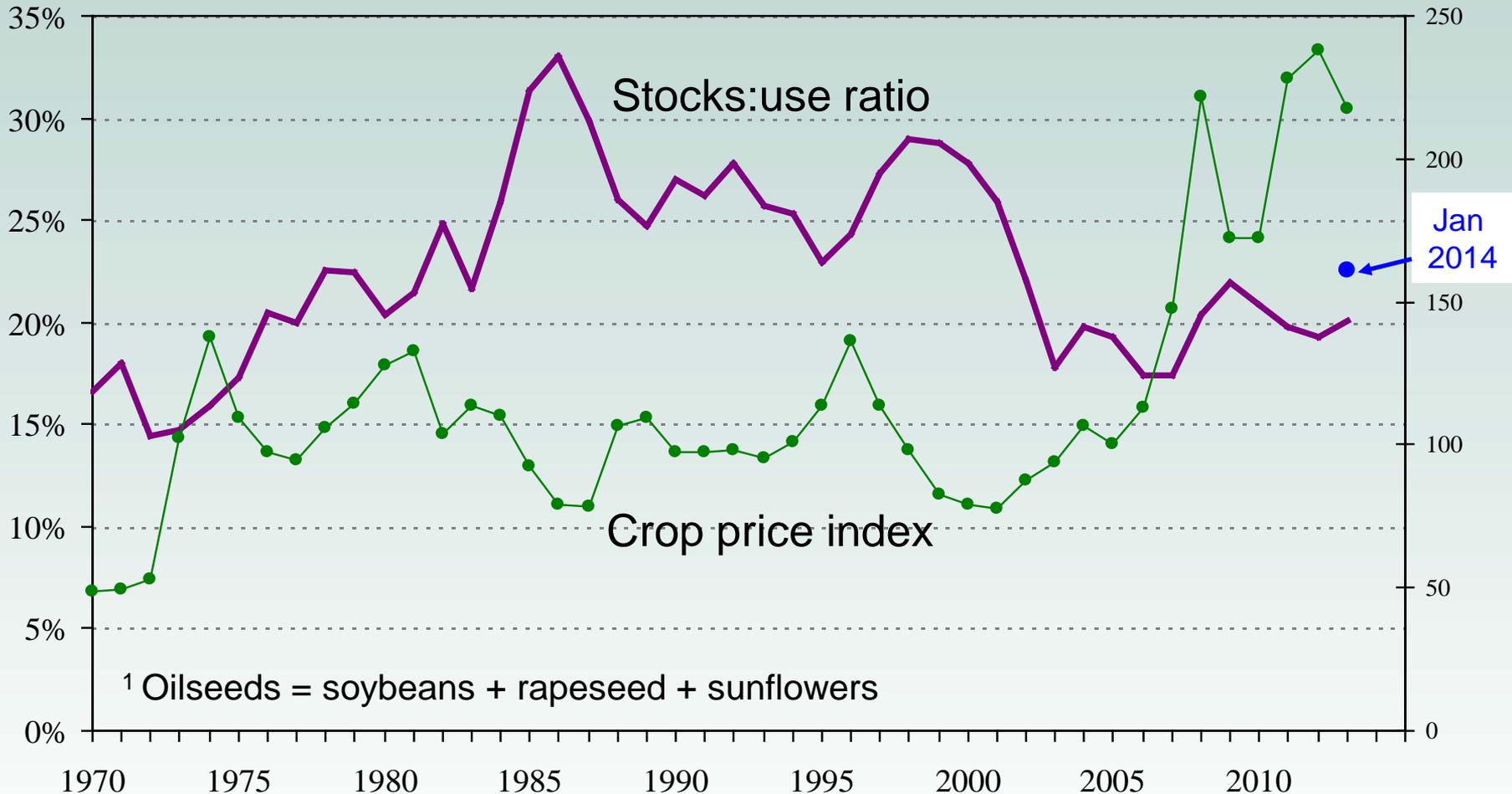
United States Department of Agriculture, Economic Research Service

Total world grain & oilseeds¹

Stocks-to-use ratio and 4-crop price index

Stocks / Use

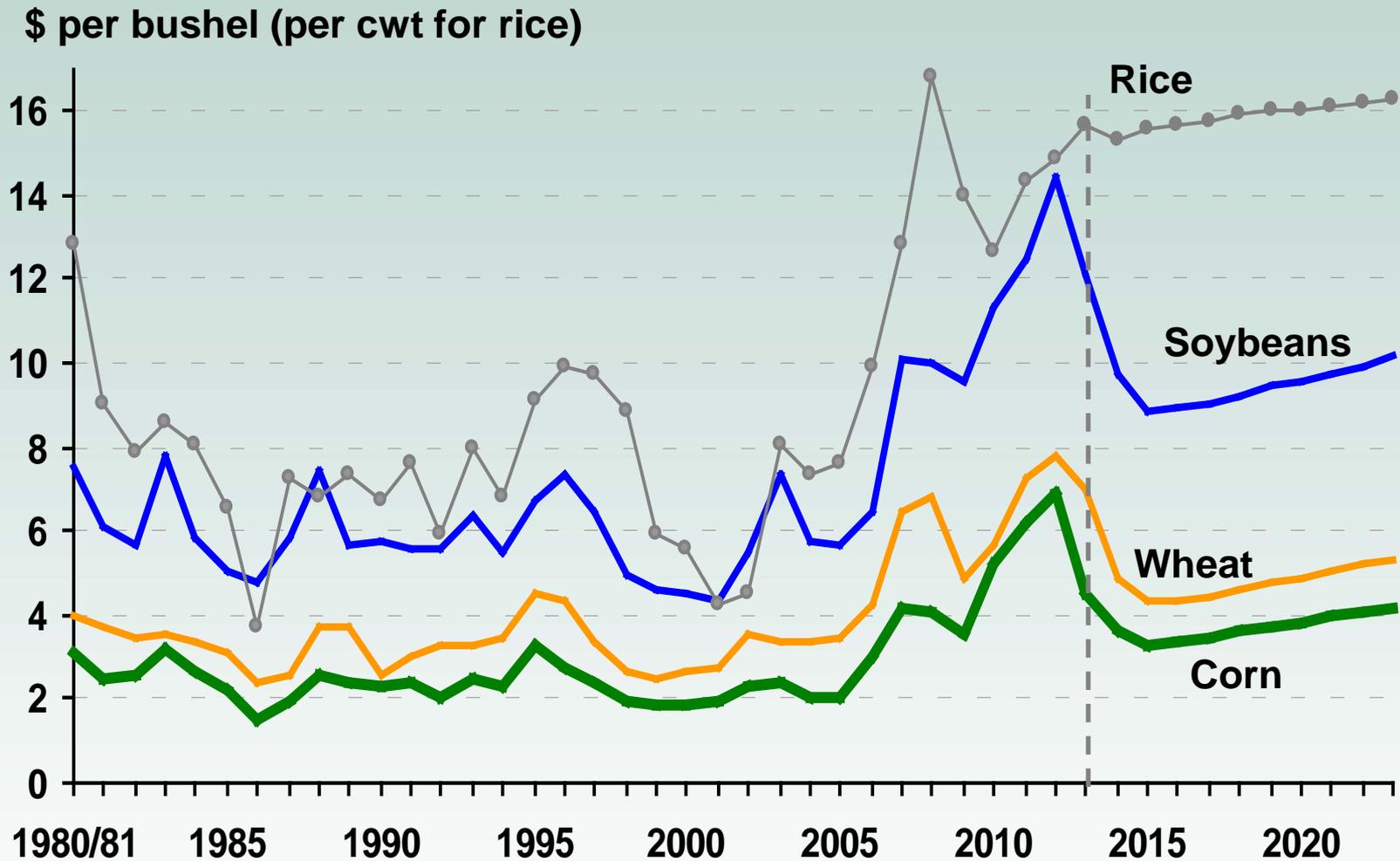
4-crop price index



¹ Oilseeds = soybeans + rapeseed + sunflowers



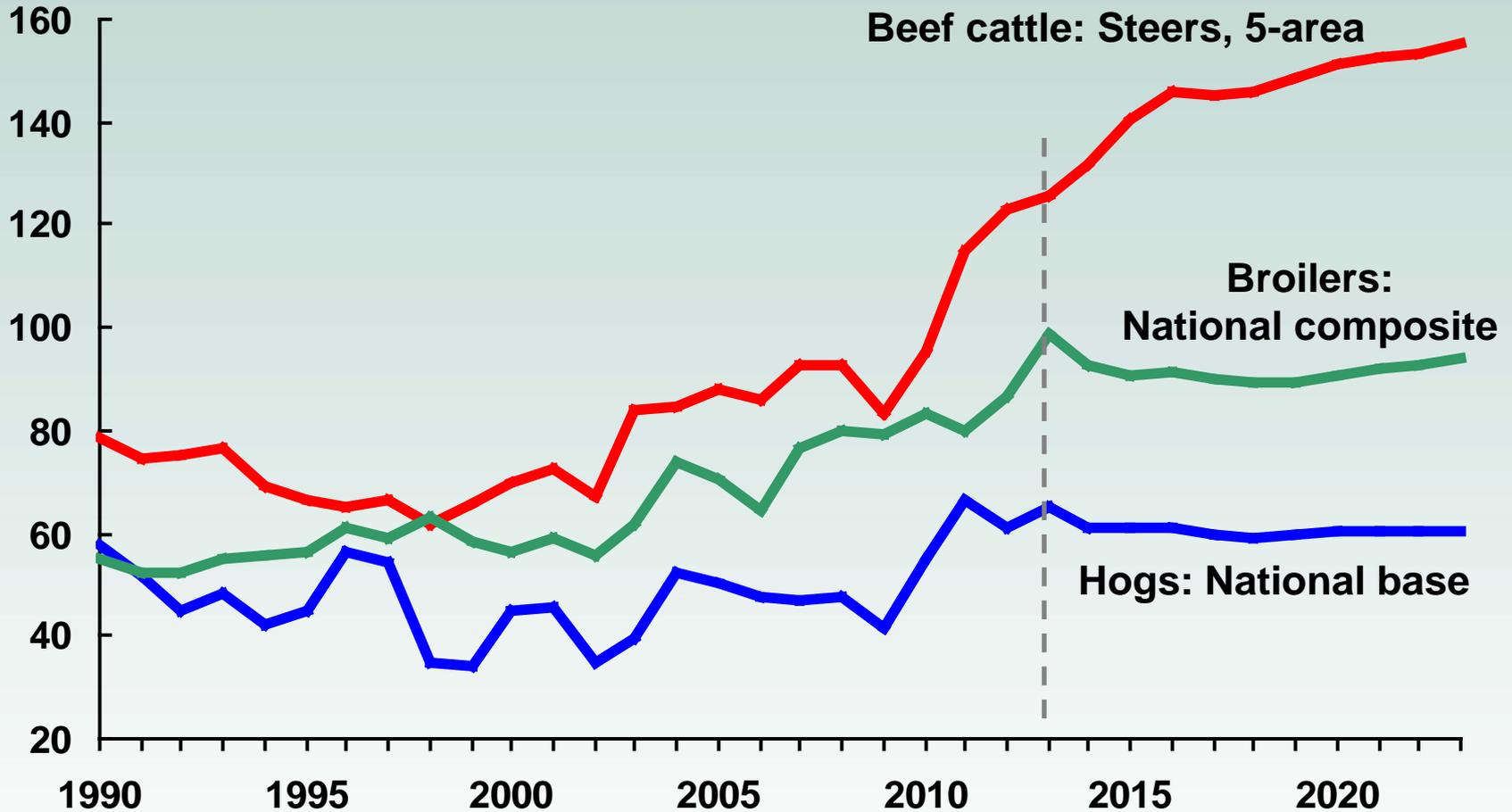
Corn, wheat, rice, and soybean prices projected to remain historically high



Source: USDA Agricultural Baseline Projections to 2023, February 2014.

Livestock Prices

\$ per hundredweight, U.S. markets



Source: USDA Agricultural Baseline Projections to 2023, February 2014.



Conclusions

- World production rose sharply in 2013 in response to high prices and good weather. Stocks have risen.
- Expect prices to decline from recent peaks, but to remain historically high
 - Global economic recovery and renewed growth in demand for crops, animal products, and energy
 - Slower productivity growth
 - Continued low value of the dollar
 - Much slower growth in global biofuels output
- World ag production prospects
 - In short-run: production can respond to higher prices – if the weather cooperates.
 - Over next 10 years, global production growth is projected to keep pace with population.

Related reports and contacts

Why Have Food Commodity Prices Risen Again?

<http://www.ers.usda.gov/publications/WRS1103/>

USDA Agricultural Projections to 2023

<http://www.ers.usda.gov/topics/farm-economy/agricultural-baseline-projections.aspx>

Contact:

Ron Trostle

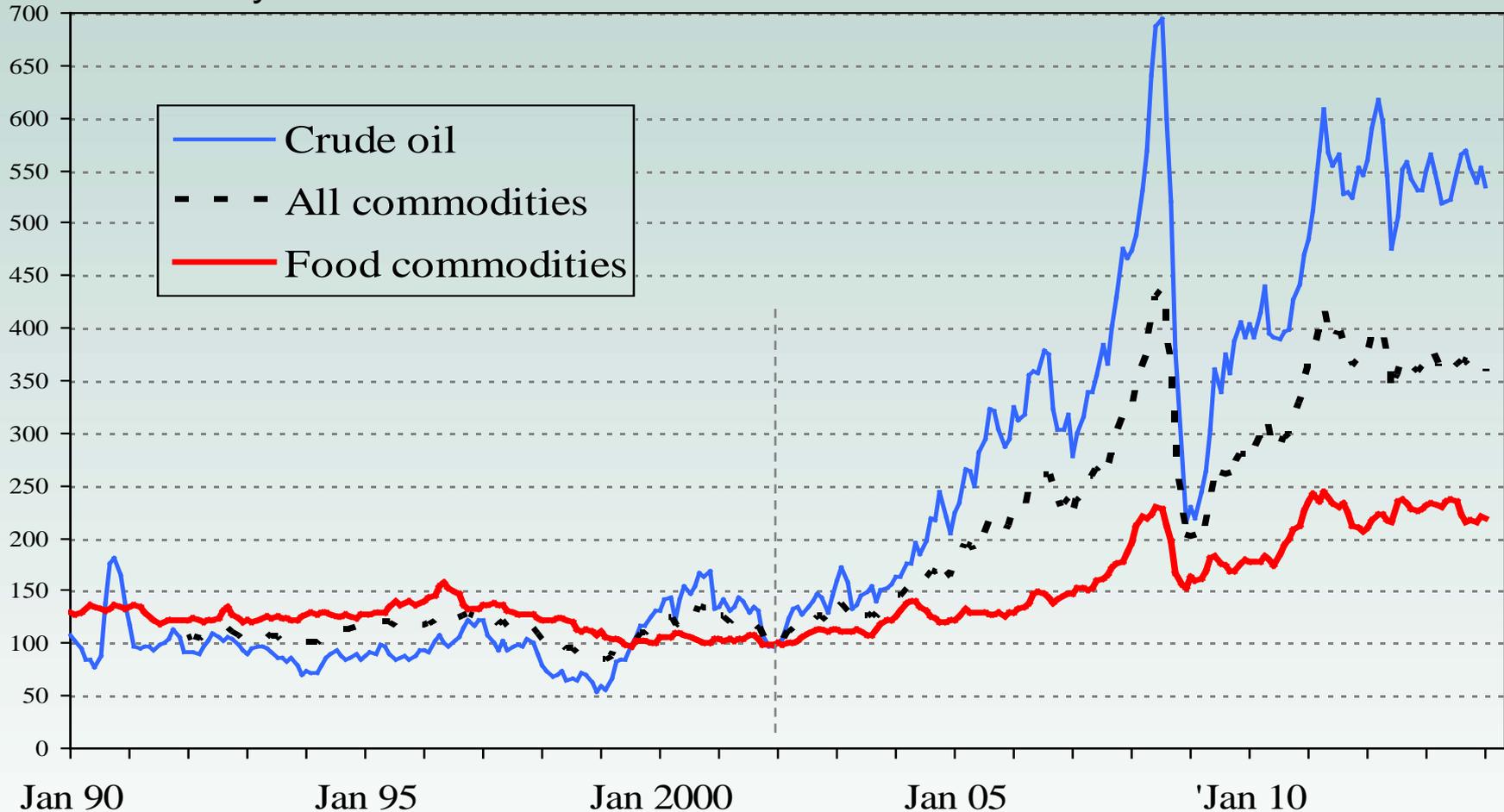
rtrostle@ers.usda.gov

202-694-5280



Non-food commodity prices have risen even faster

Index: January 2002 = 100



Source: International Monetary Fund: International Financial Statistics. January 2014



Factors that may influence future ag prices

- Economic growth & world economy
- Global consumption & import demand
- Weather / world ag production
- Stock levels
- Exchange rates
- Energy & other non ag prices / Ag production costs
- Policy changes by food commodity exporters & importers