

FAPRI agricultural commodity outlook

By
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FAPRI at MU

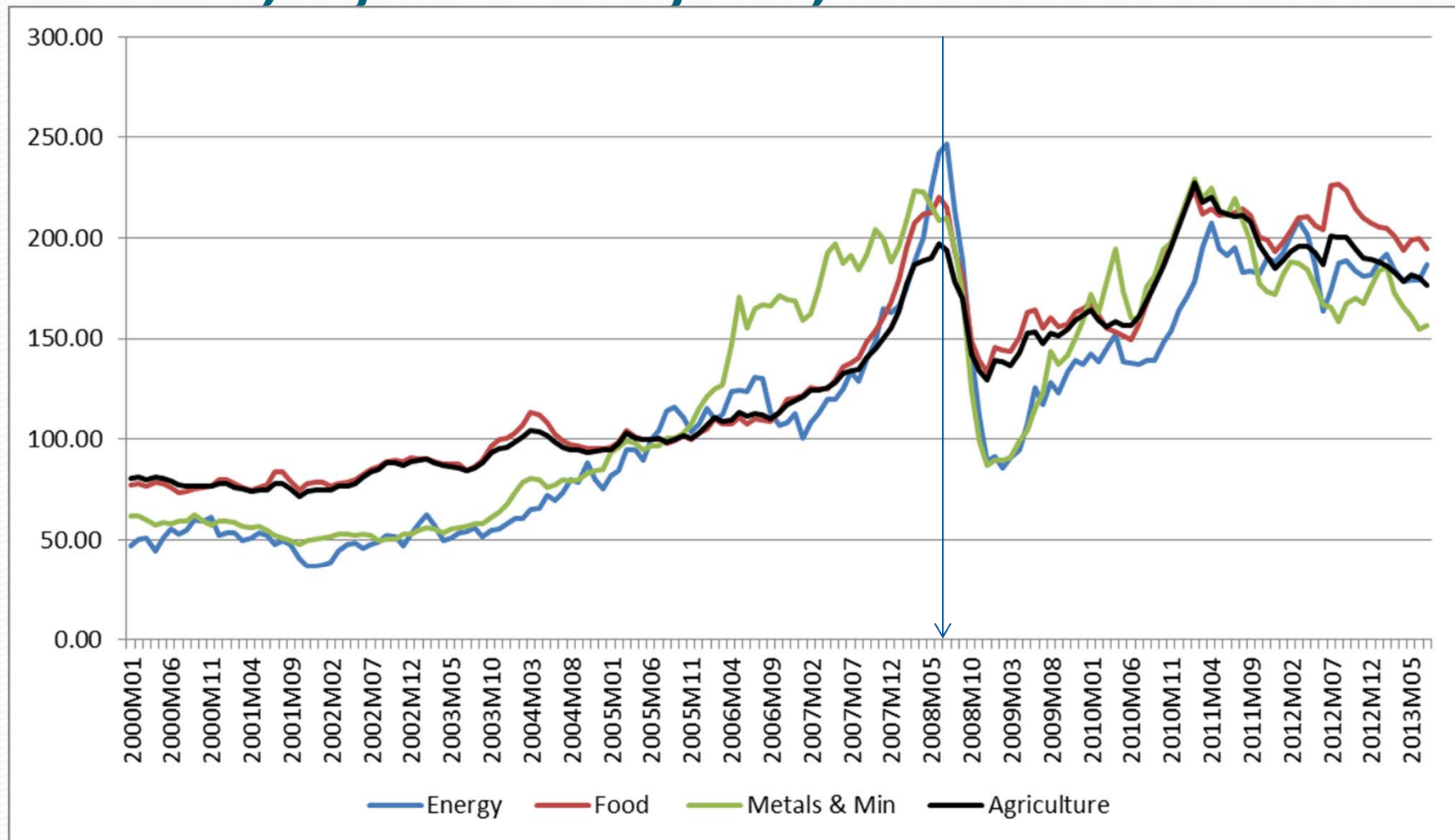
UN DESA Expert Group Meeting on the World Economy

21 October 2013

New York, NY



World Bank food, energy, metals price indices, 1/00 to 7/13, 2005=100



With such volatility, what are US midwest farmer expectations?

Source: Farmer meeting in the midwest

August, 2013



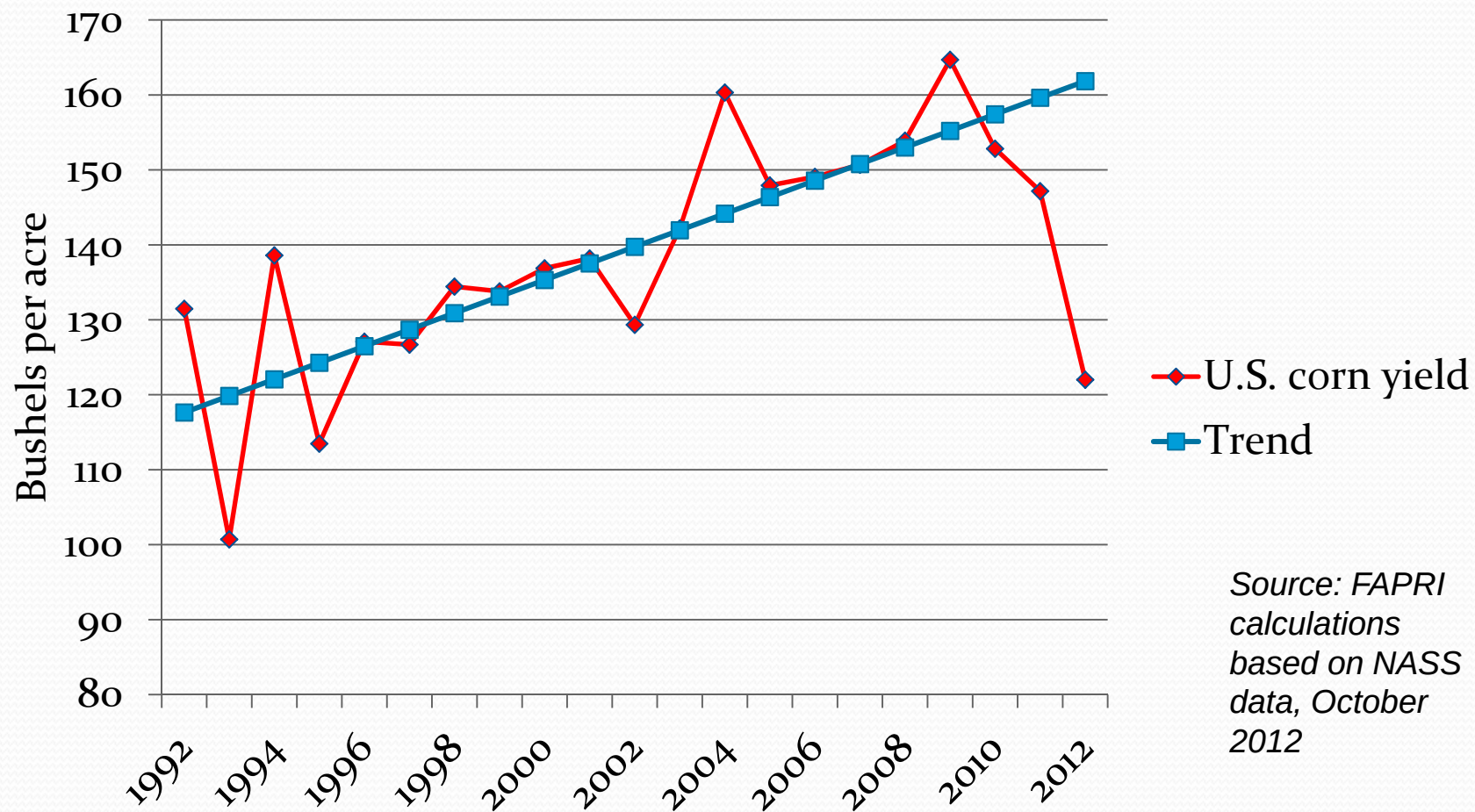


Agenda

- Some perspective
 - On the near term
 - On the longer term
- Market outlook as of August 2013
- Possible impacts of policy developments

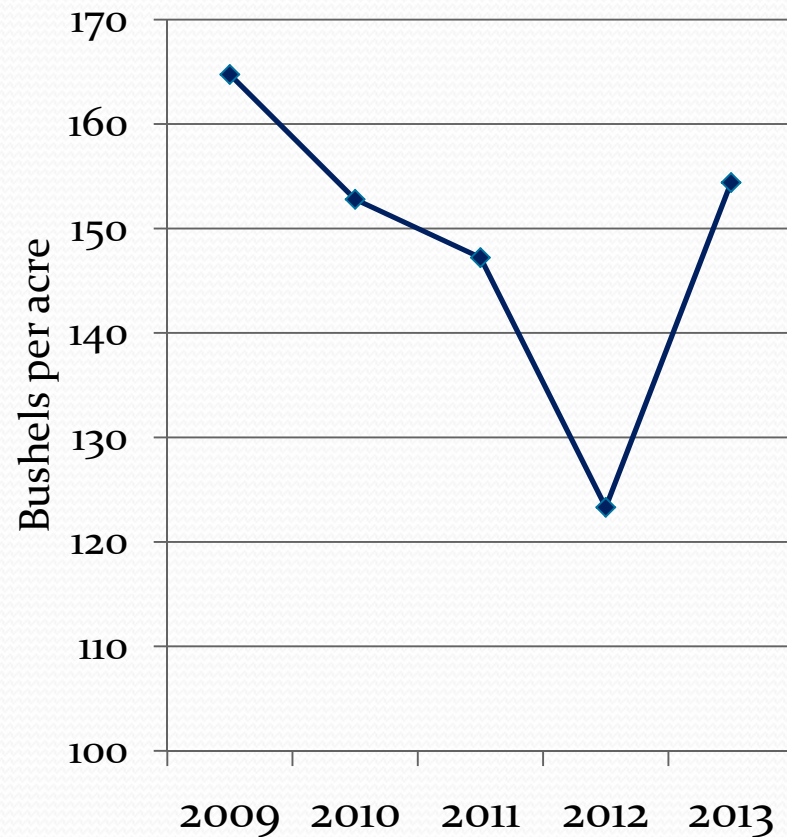
Drop in US corn yield, bu/ac

--three years in a row!

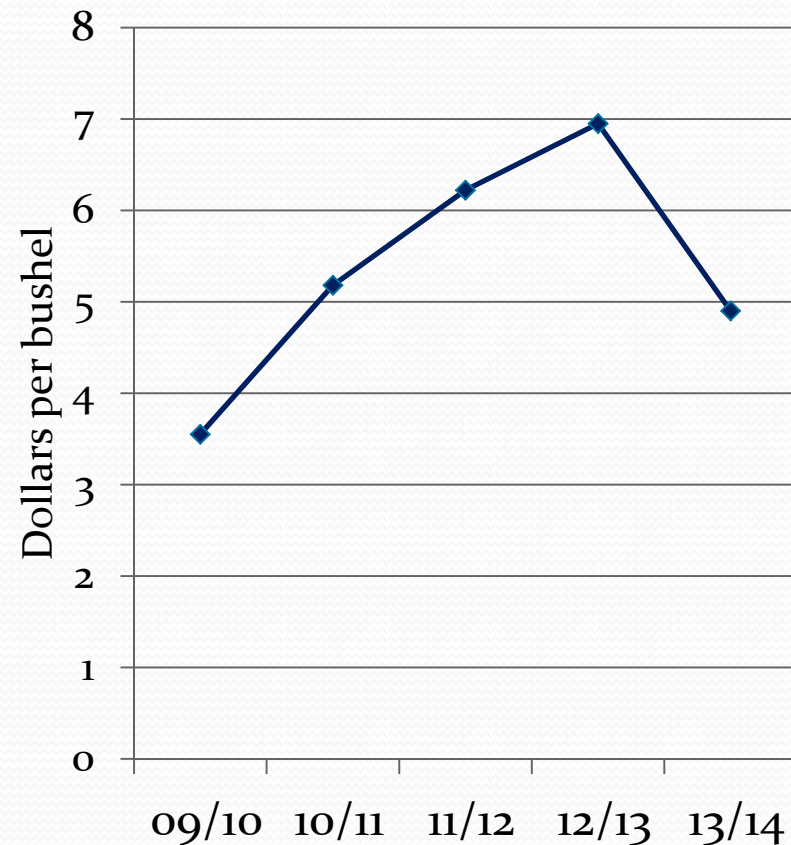


U.S. corn yields and prices

U.S. corn yield



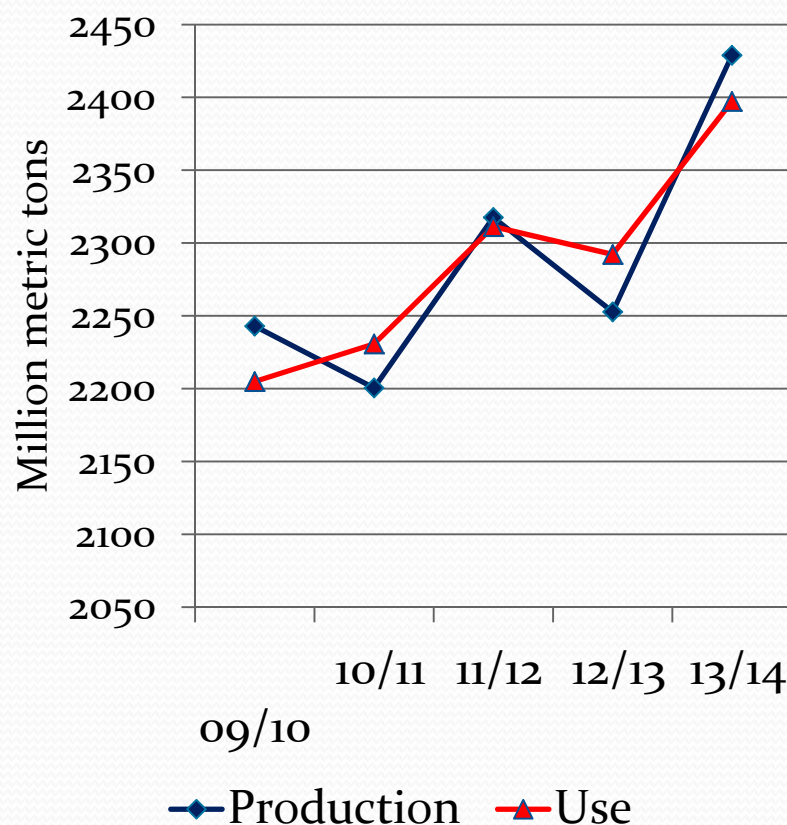
U.S. corn farm price



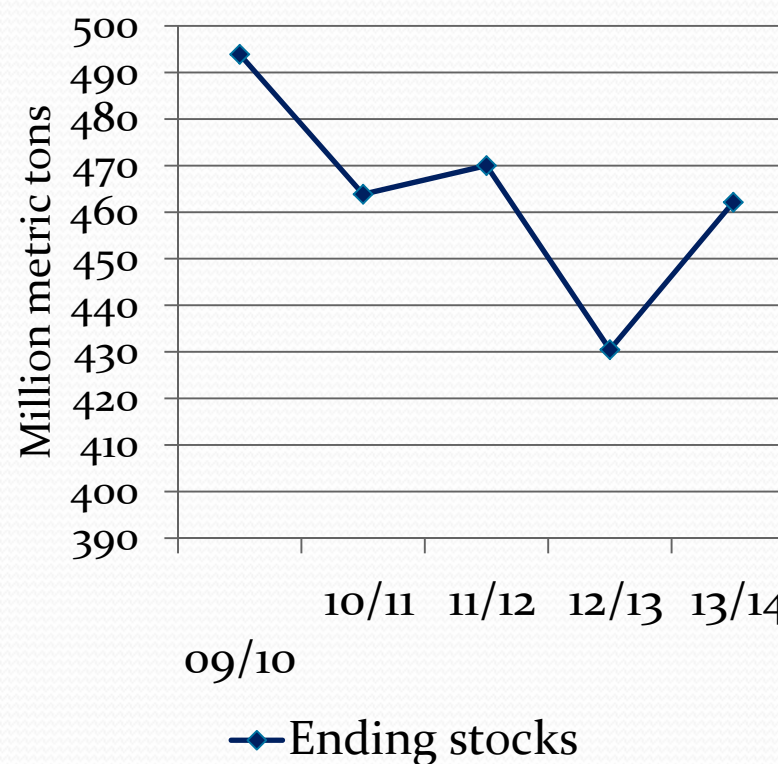
Source: USDA WASDE, August 2013

Global grain supply, use and stocks

World grain production



World grain ending stocks



Source: USDA WASDE, August 2013

Last years BIG decline (USDA WASDE Sept 12, 2013)

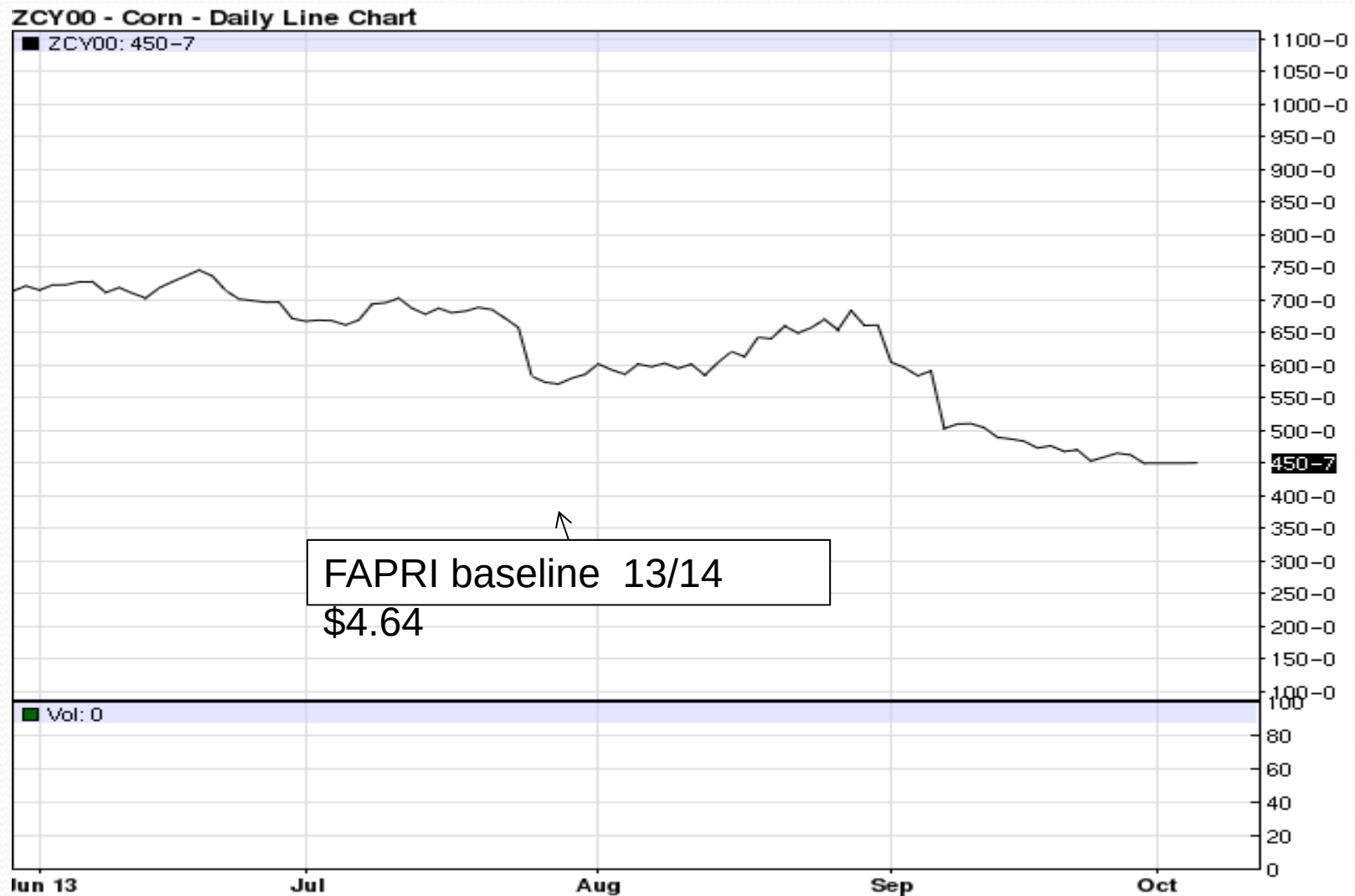
Production (mil mt)	2011/12	2012/13	change
Coarse Grains	1154.0	1128.5	-25.5
USA	323.7	286.0	-37.7
FSU-12	78.7	69.0	-9.7
EU-27	150.0	145.1	-4.9
Wheat	697.2	655.3	-41.9
FSU-12	115.0	77.2	-37.8
EU-27 and Aus.	168.0	155.1	-12.9
USA	54.4	61.8	7.4

This years BIGGER increase

(USDA WASDE Sept 12, 2013)

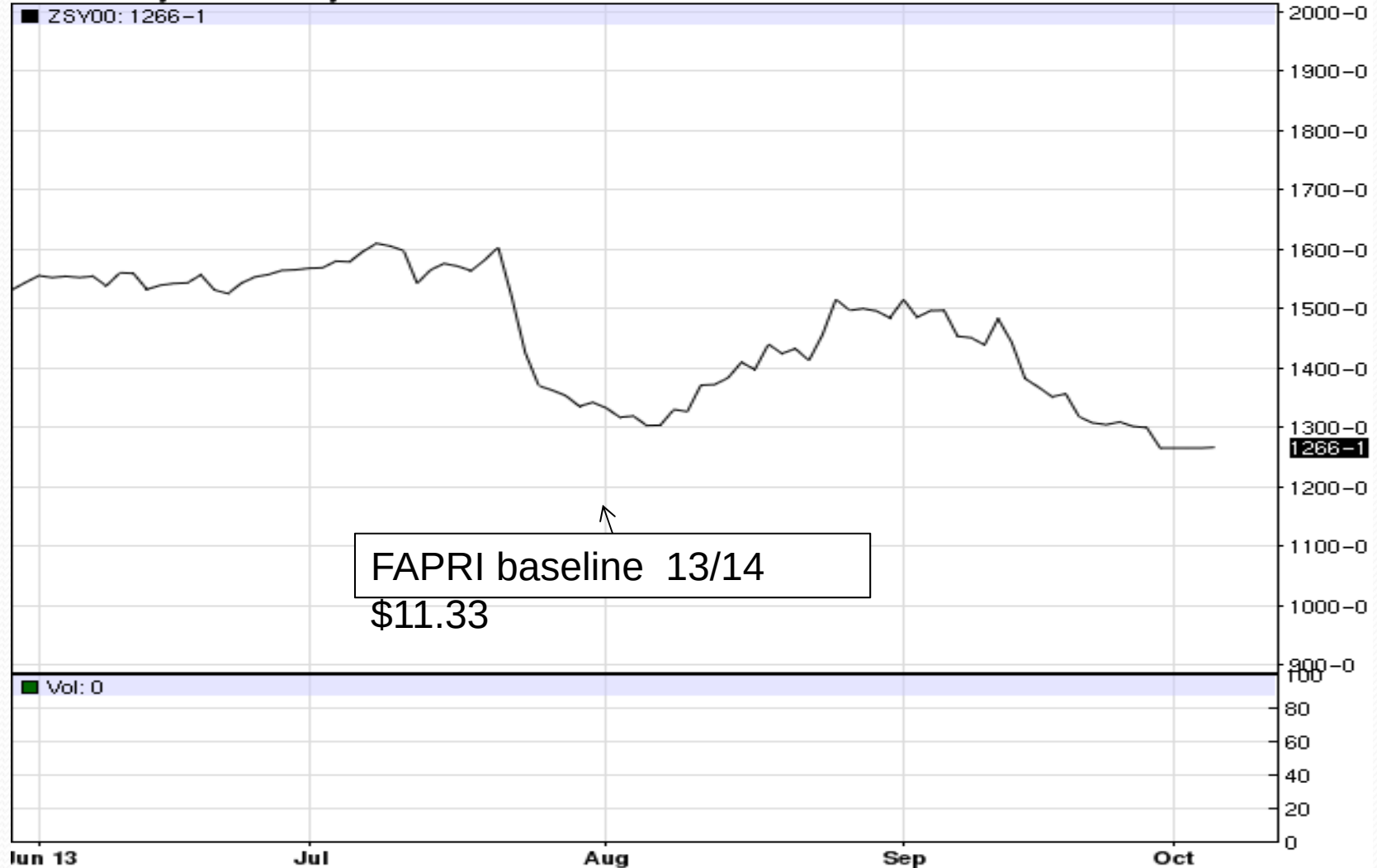
Production (mil mt)	2012/13	2013/14 e	change
Coarse Grains	1128.5	1245.5	117.0
USA	286.0	367.8	81.8
FSU-12	69.0	85.2	16.2
EU-27	145.1	156.2	11.1
Wheat	655.3	708.9	53.6
FSU-12	77.2	108.0	30.8
EU-27 and Aus.	155.1	168.4	13.3
USA	61.8	57.5	-4.3

Recent corn price movements



Things happen, recent soybeans.....

ZSY00 - Soybeans - Daily Line Chart

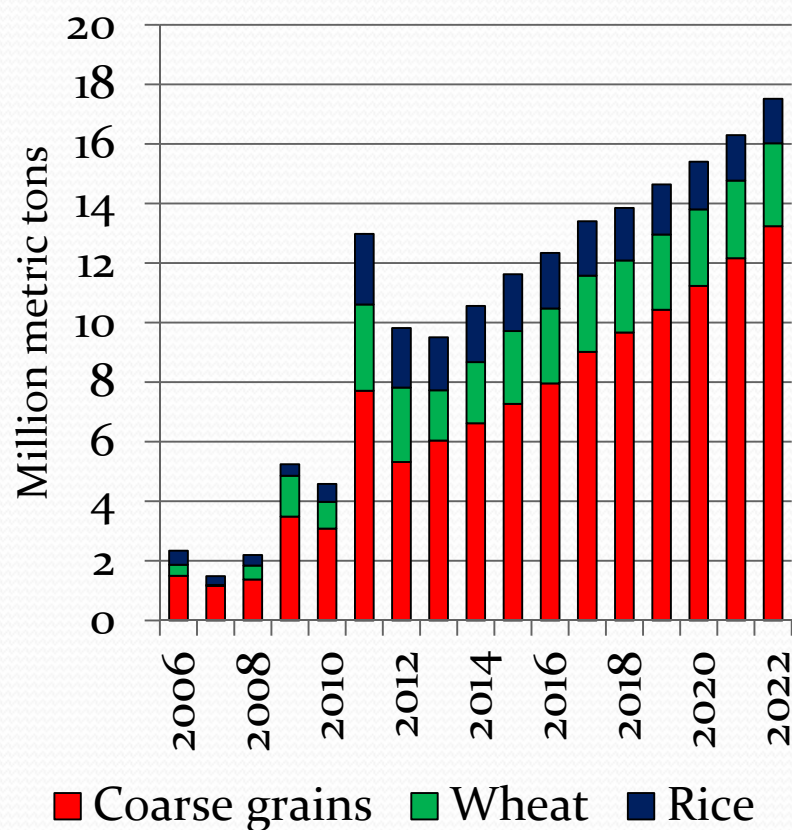


China: The setting for the next decade (FAO view)

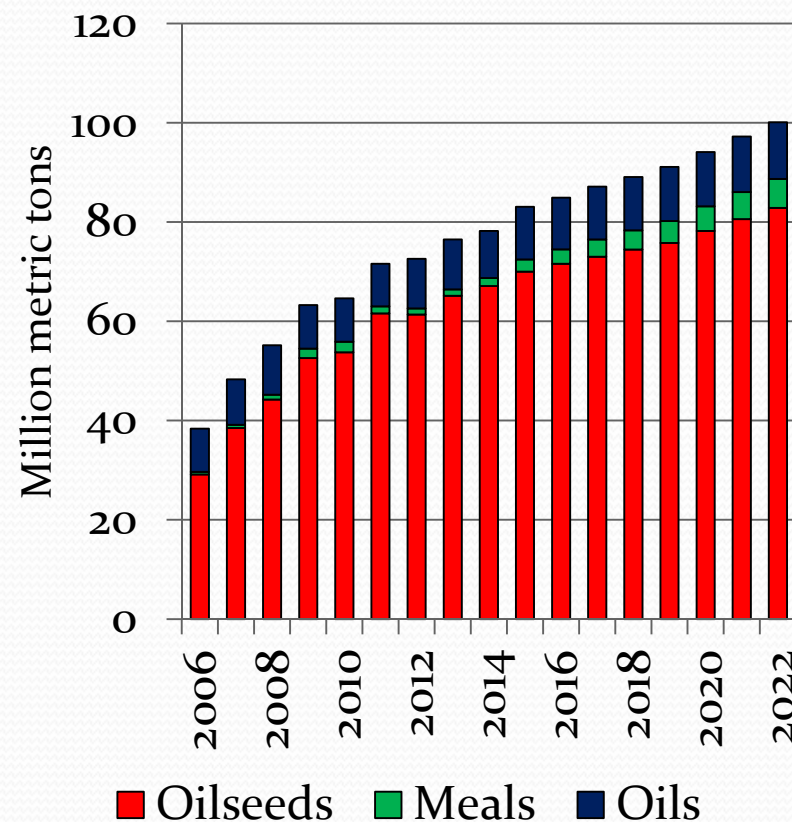
- Success in growth, food consumption/security, rural incomes
- Rising constraints raise issue on how sustainable growth is
 - Land, water, labor are in tight supply
 - Real exchange rates are rising
 - Increasing government support
- How much will demand grow??
 - Slowing population growth, but rapid urbanization
 - High income growth continues
 - Consumption base – room to grow but nearing saturation?

China grain and oilseed imports

Grain imports

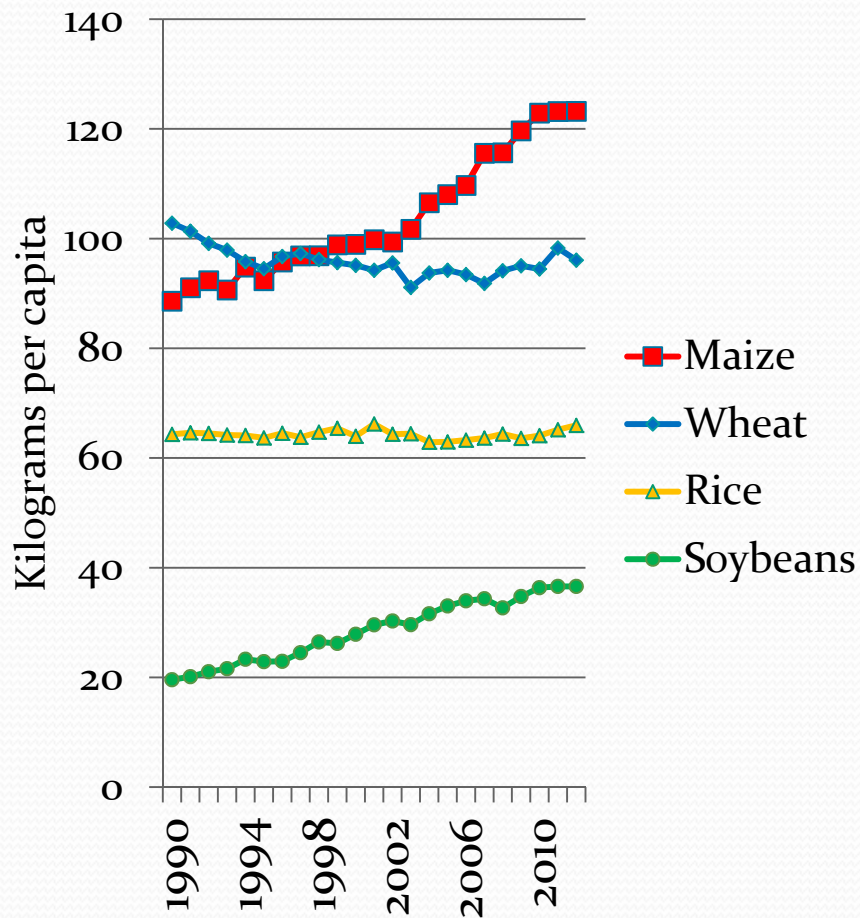


Oilseed sector imports



Source: OECD/FAO outlook, June 2013

Global crop use per capita



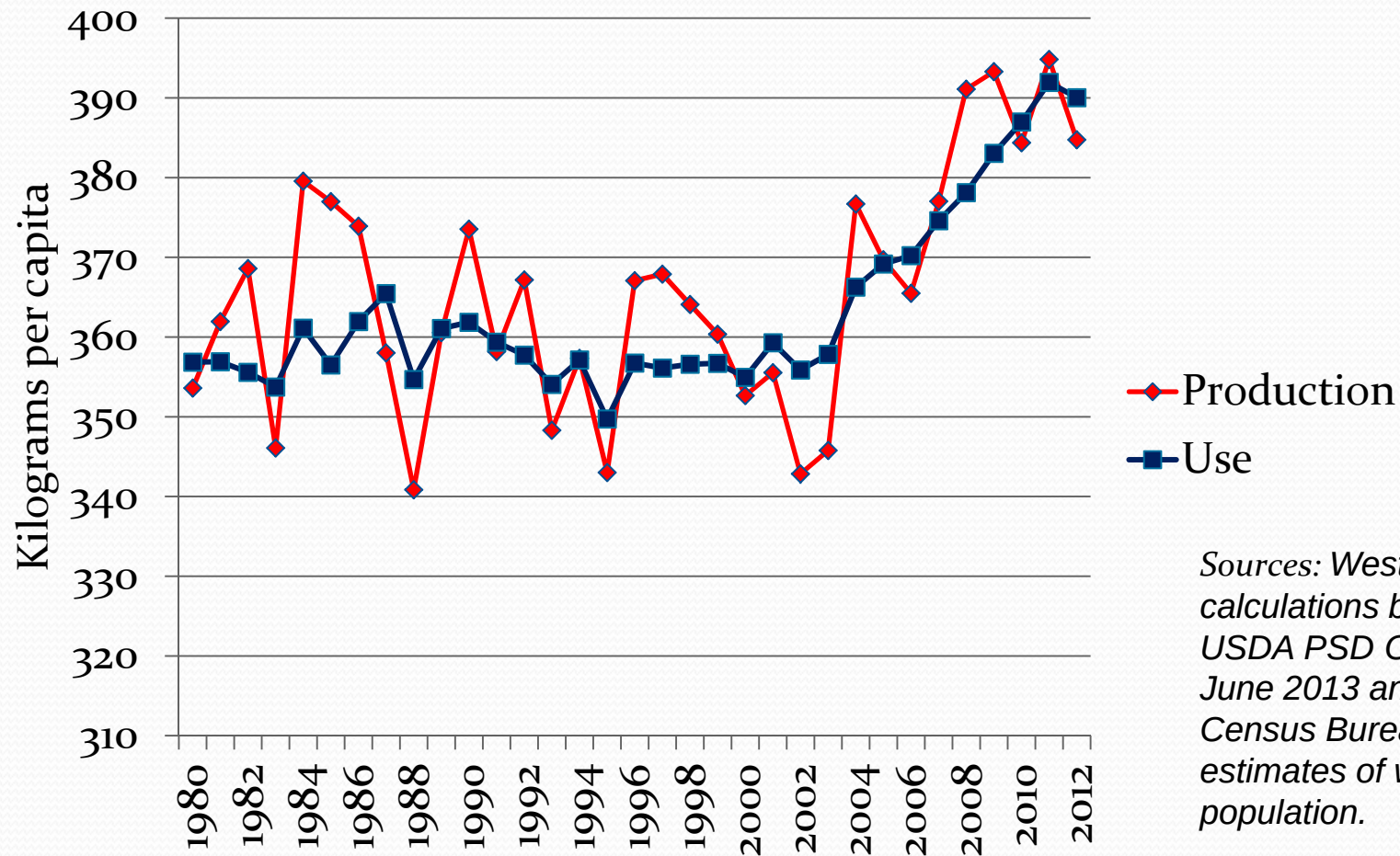
	2010-12 average Kg/yr	Annual growth rate Kg/yr	Percent growth rate
Maize	123	1.6	1.3%
Wheat	96	-0.2	-0.2%
Milled rice	65	0.0	0.0%
Soybeans	37	0.8	2.3%

Increases in per-capita feed use account for about 39% of the increase in per-capita use since 1990. Ethanol and other uses account for the rest.

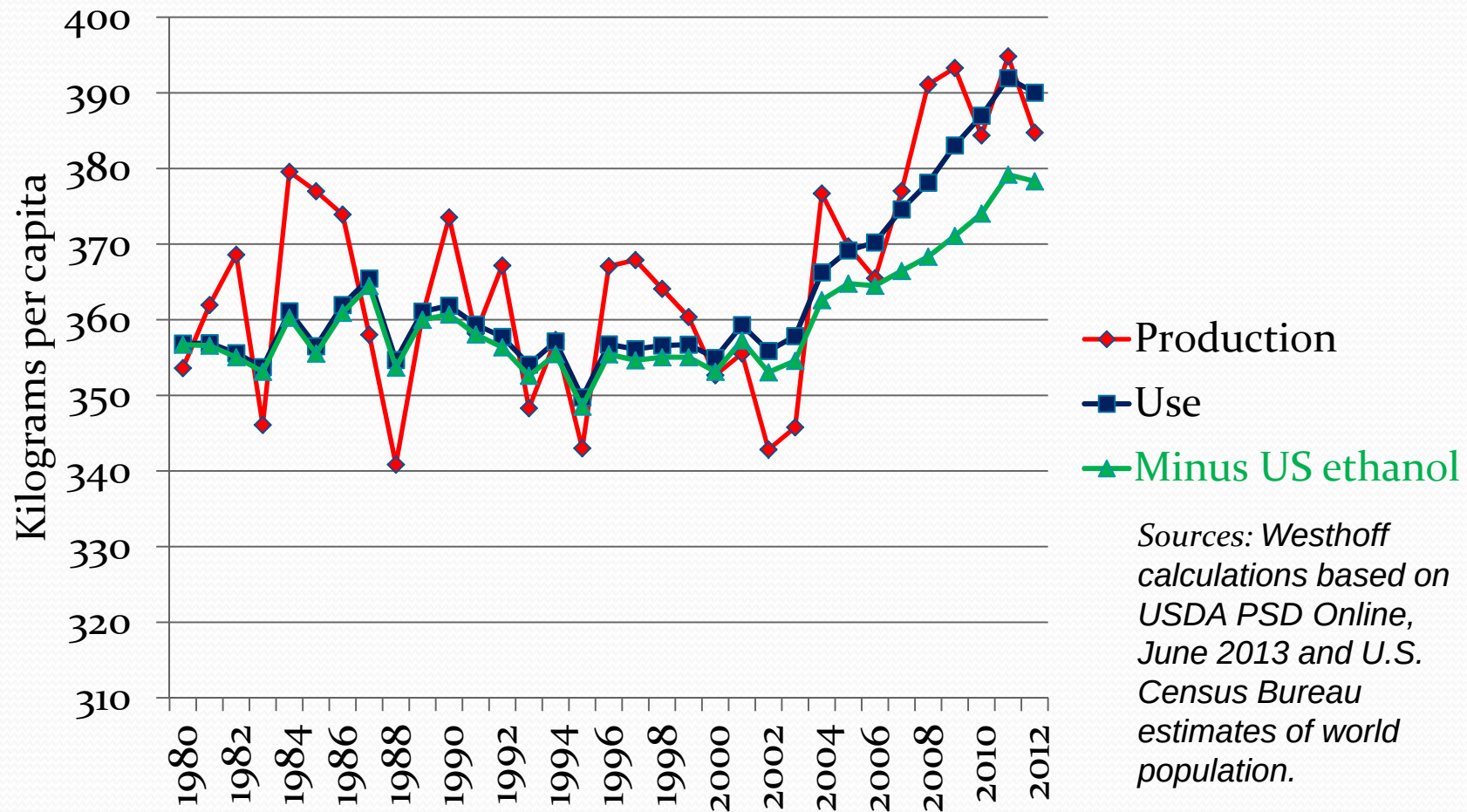
Increased use of soymeal in livestock rations and soyoil in both food and industrial uses contributed to the growth in per-capita use.

Source: author calculations from PSD Online data. Trend is simple linear trend fit over 1990-2012.

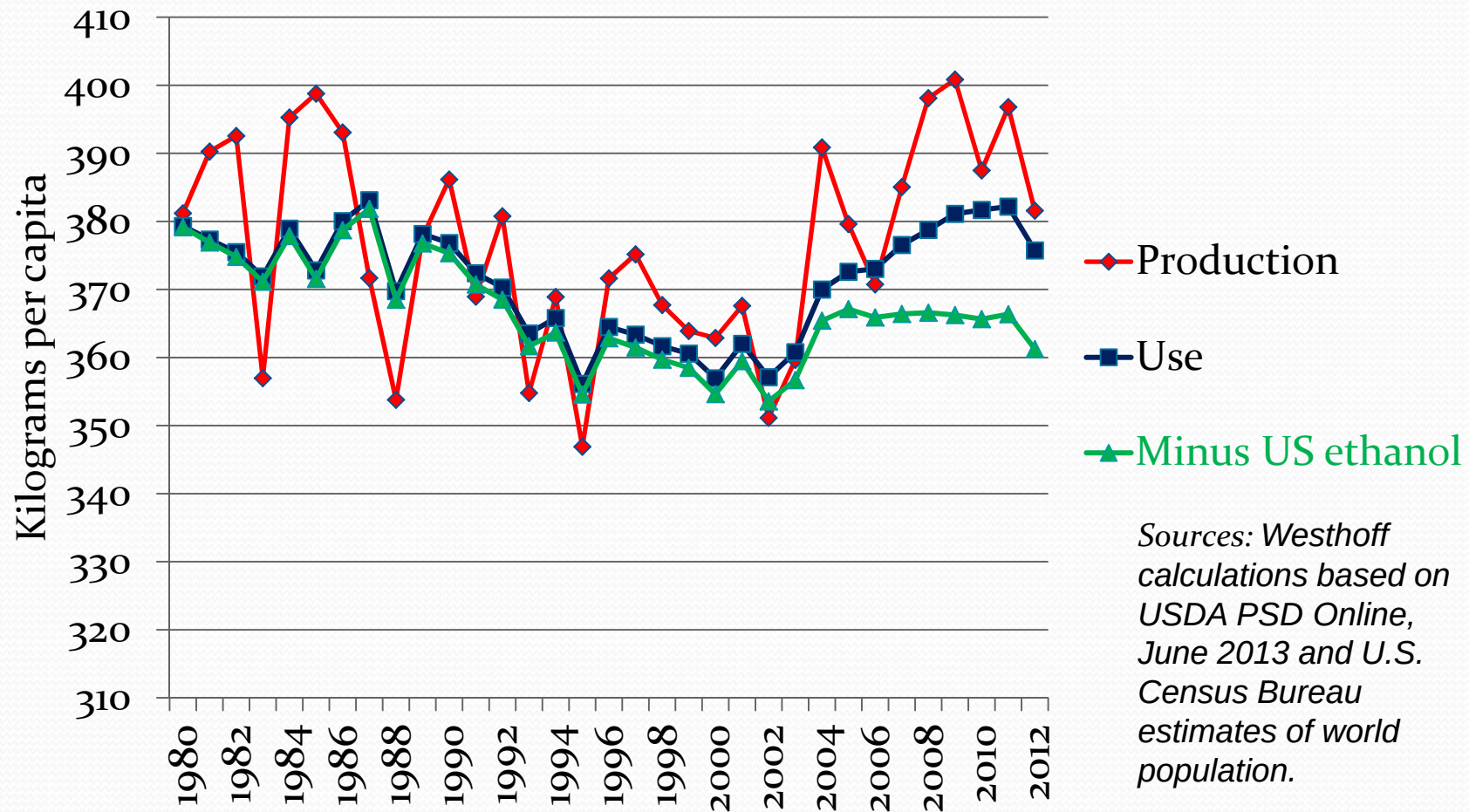
World grain and oilseed production and use per capita



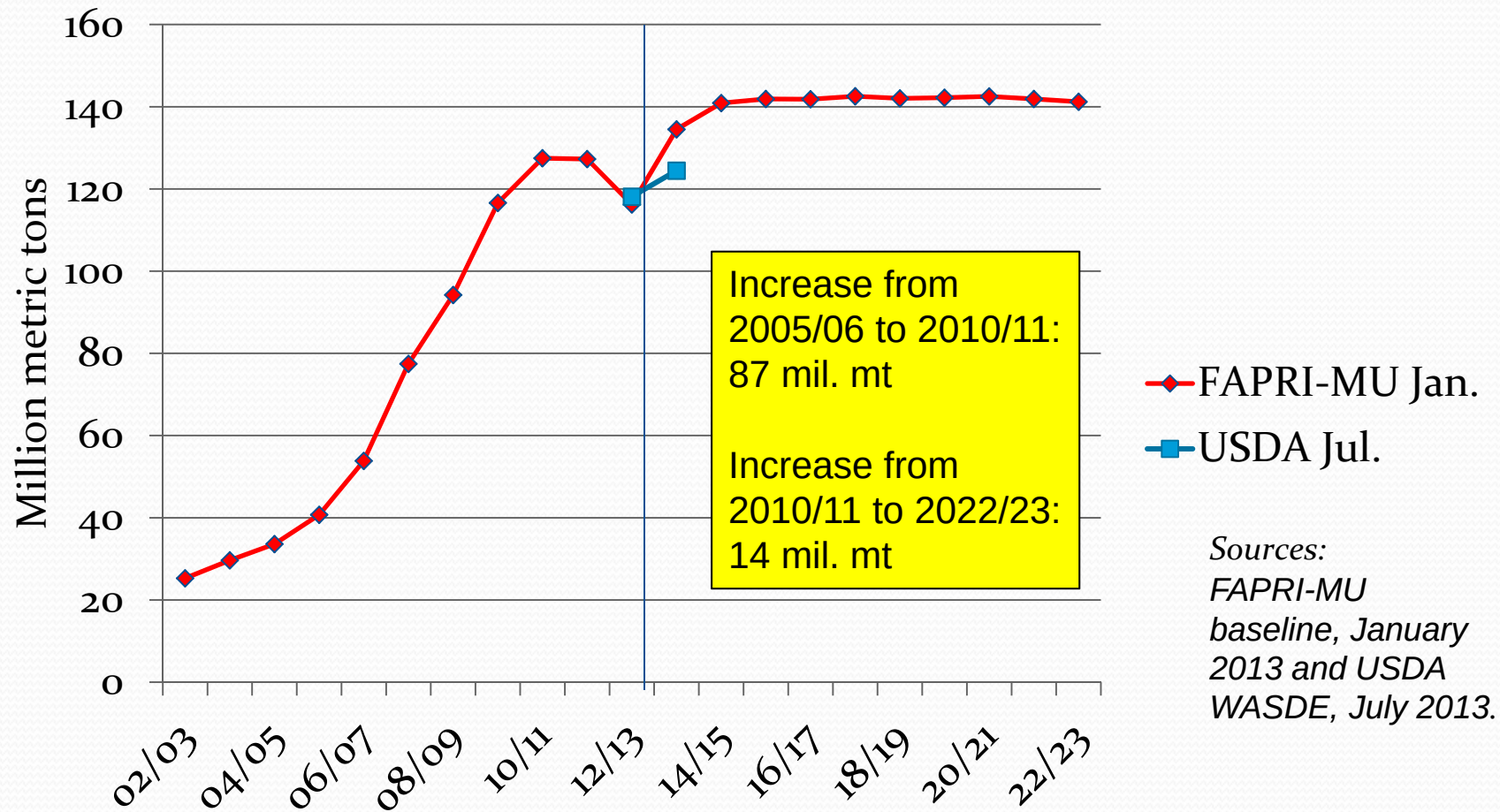
World grain and oilseed production and use per capita minus US ethanol



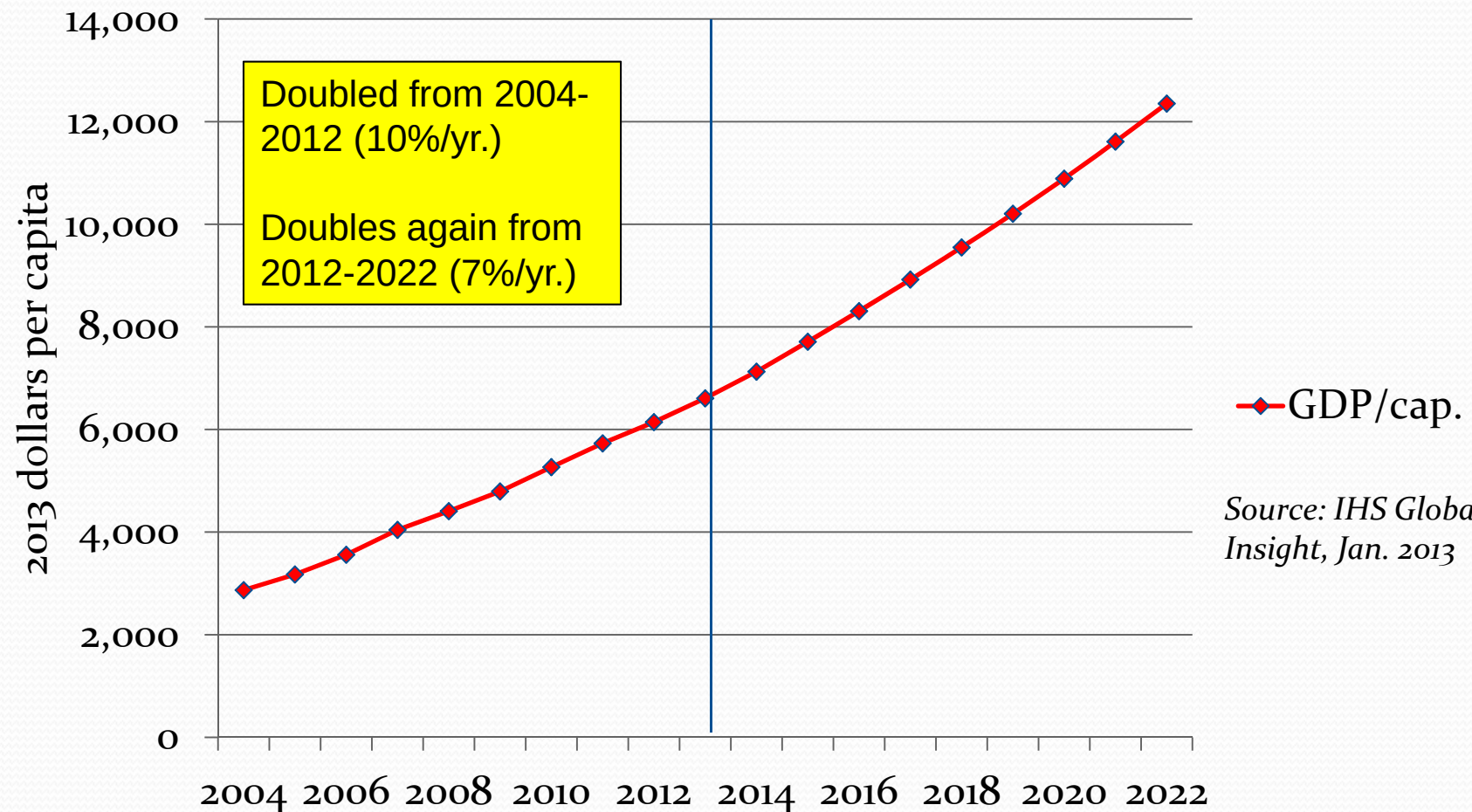
World **less China** grain and oilseed production and use per capita



U.S. maize ethanol & coproduct use

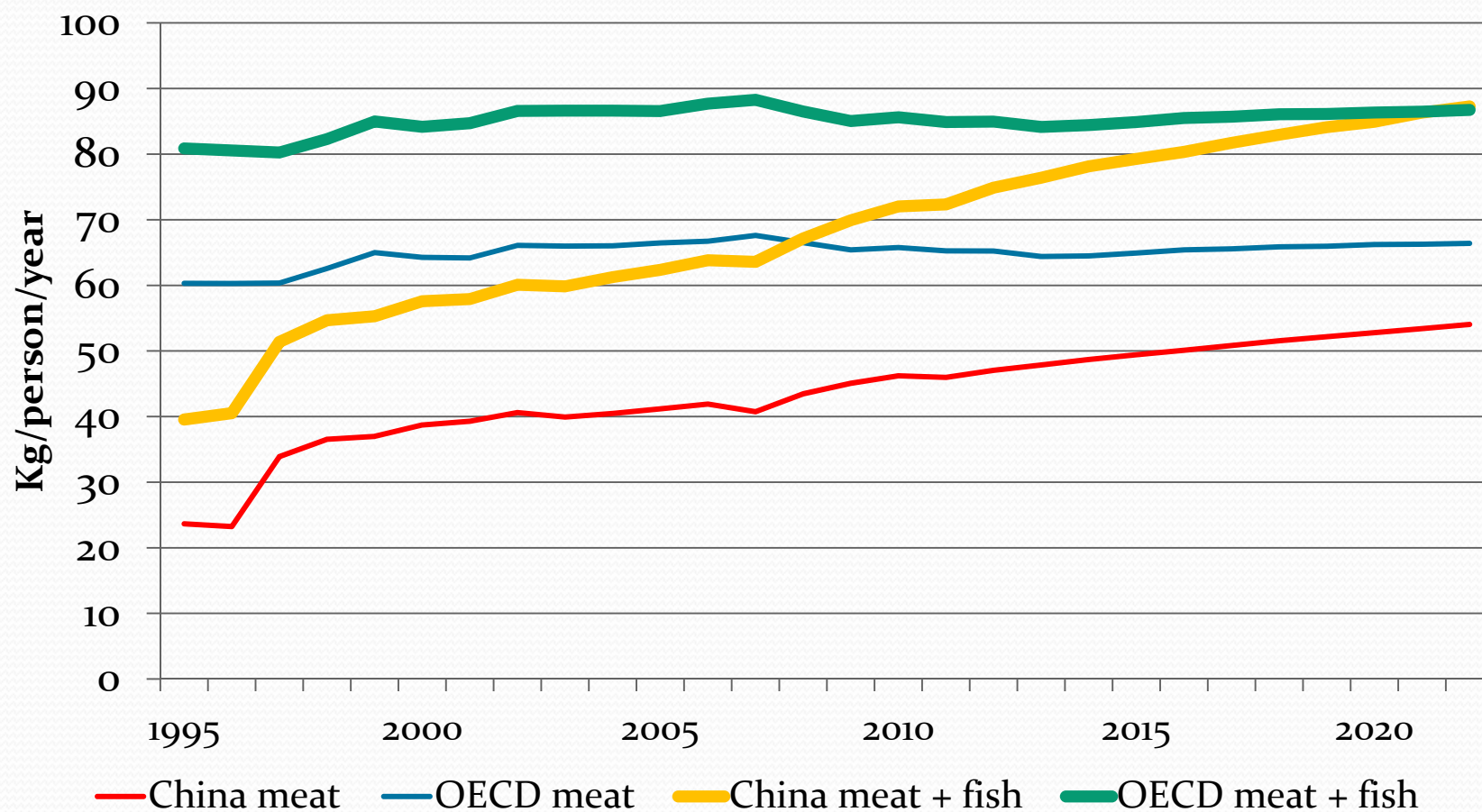


China real GDP per capita



Source: IHS Global
Insight, Jan. 2013

China: Per capita meat + fish consumption rises to OECD levels



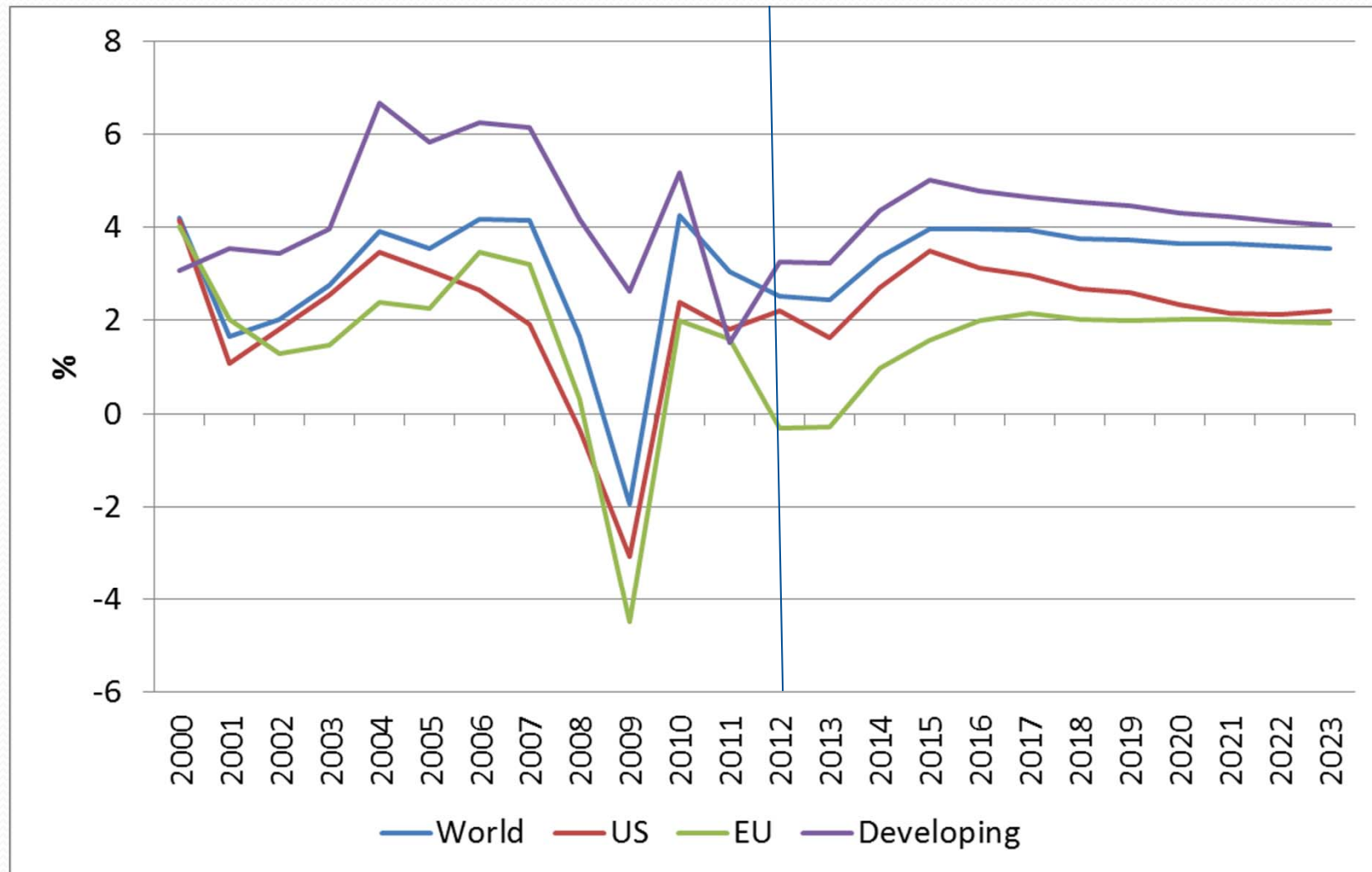
Source: Holger Matthey, FAO, based on the OECD/FAO Agricultural Outlook, June 2013



Agenda

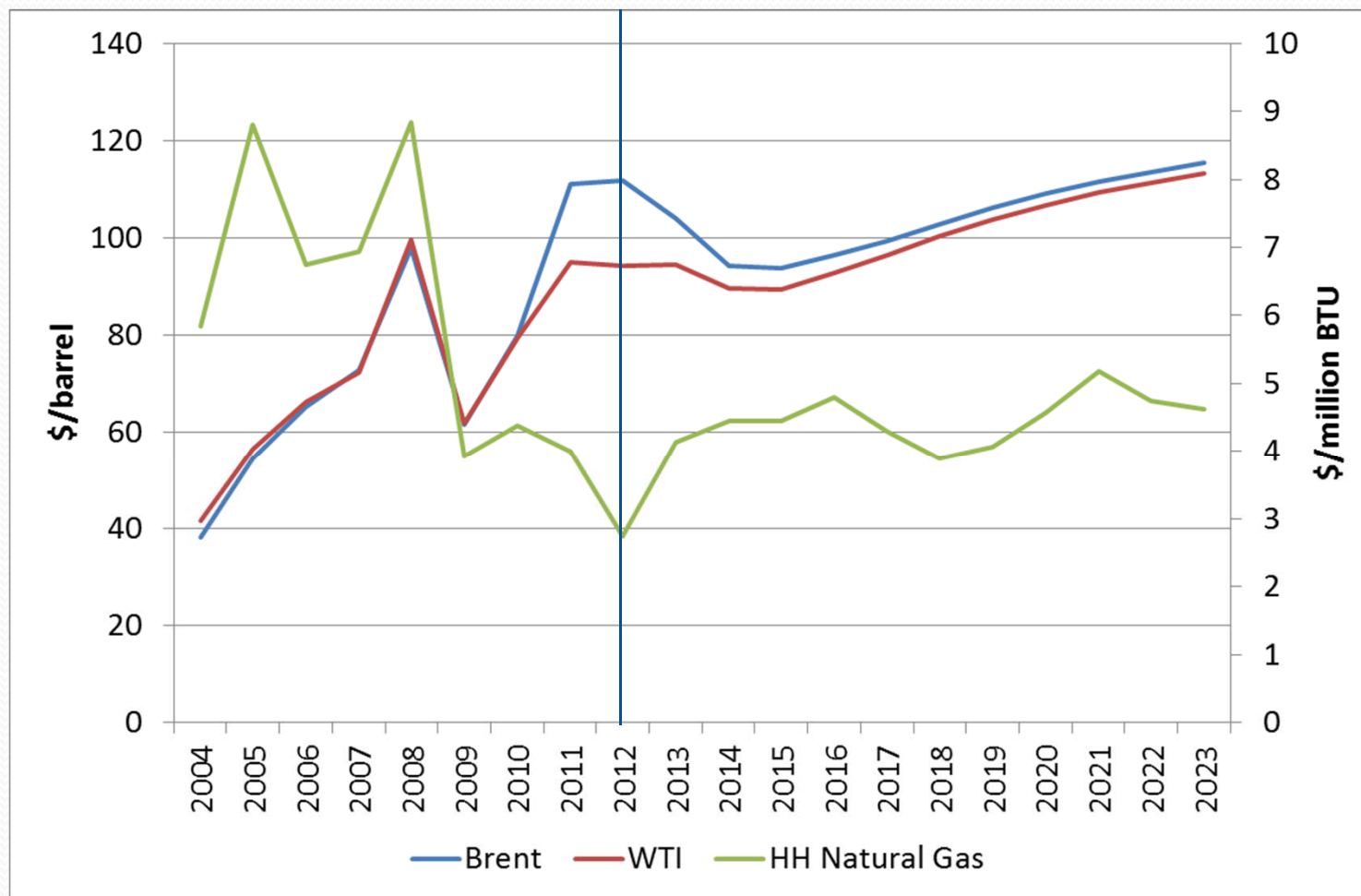
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Real GDP growth rates



Source: IHS Global Insight, July 2013

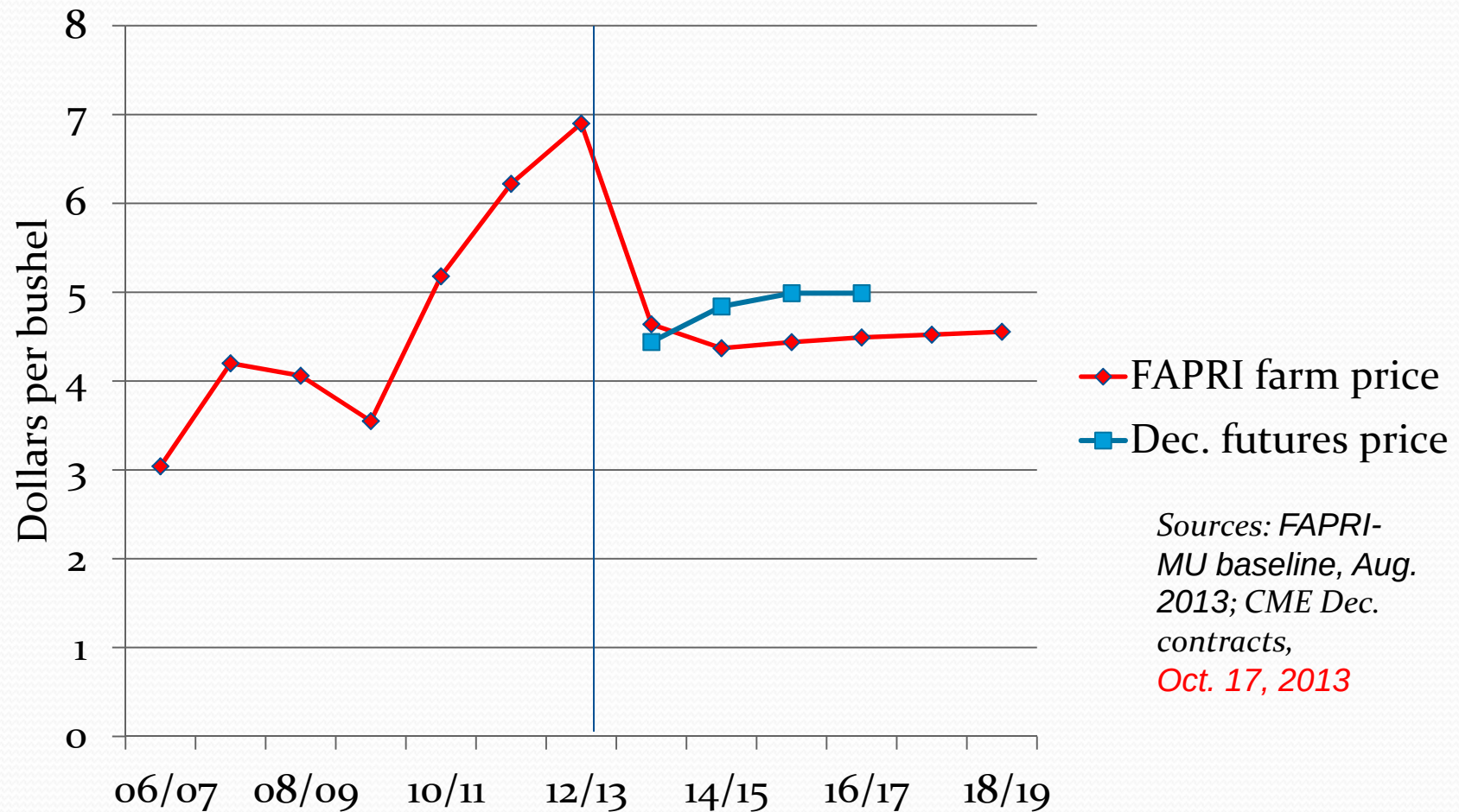
Oil and Natural Gas prices



Source: IHS Global Insight, July 2013

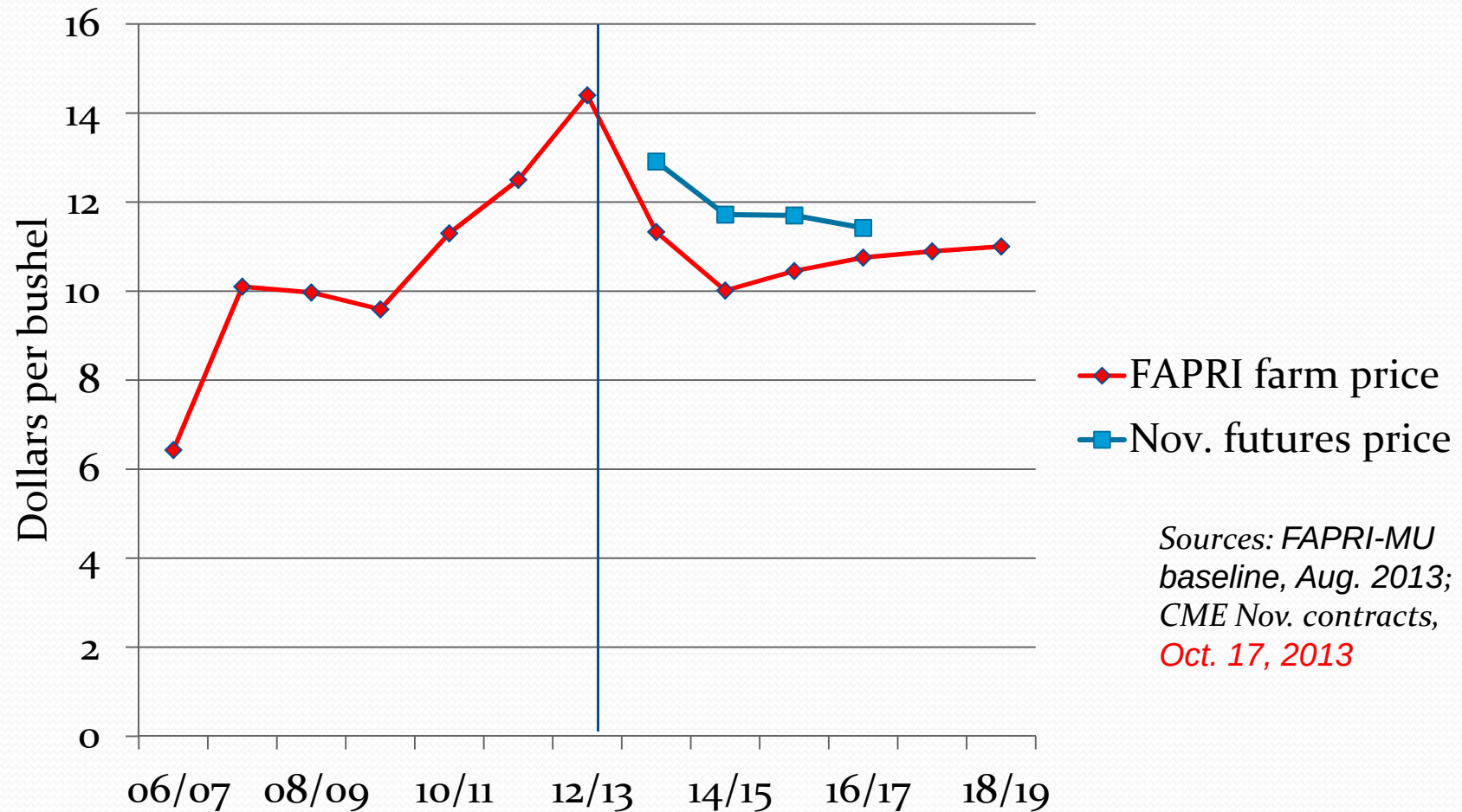
U.S. corn prices

Farm and futures prices

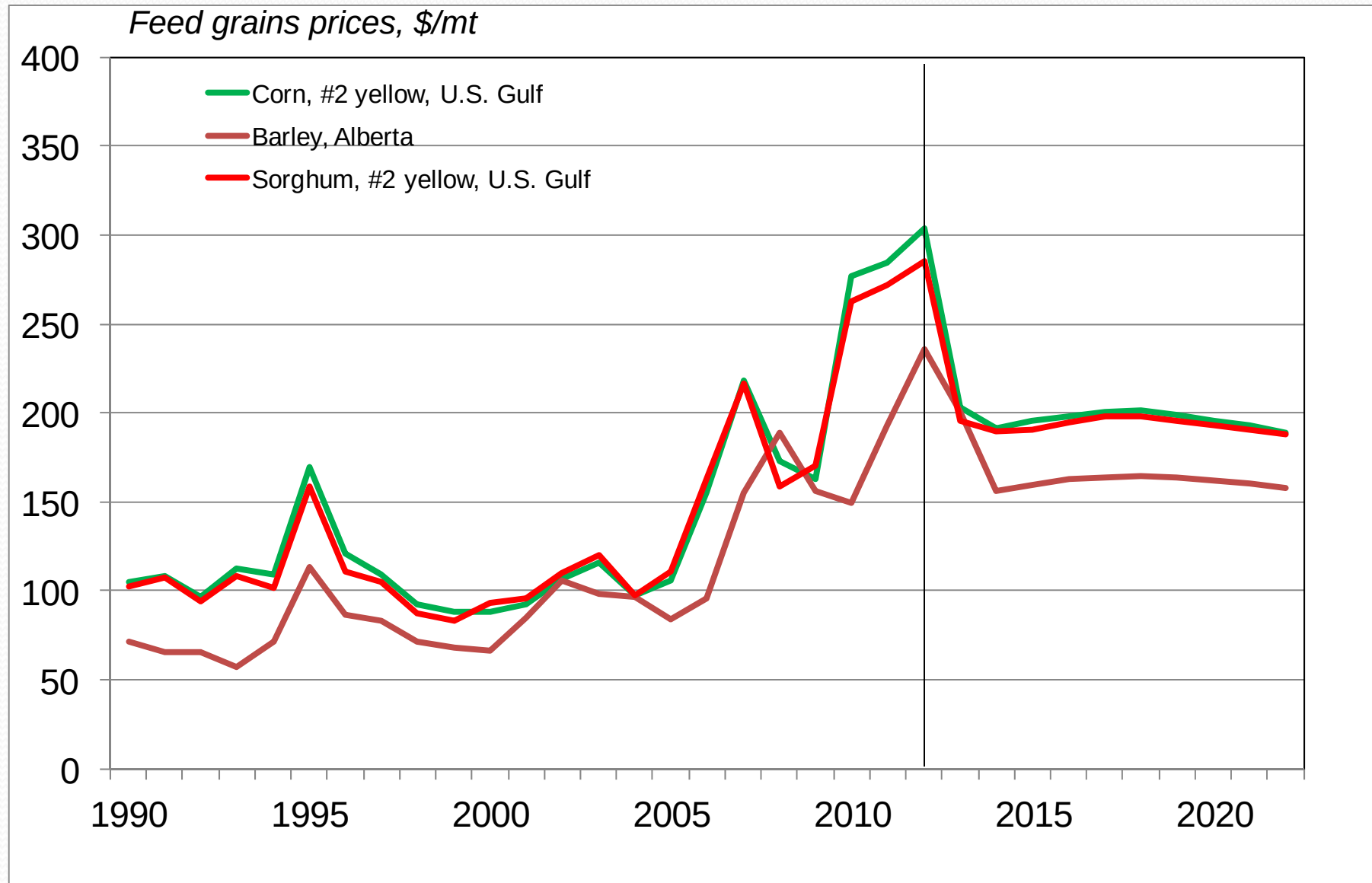


U.S. soybean prices

Farm and futures prices



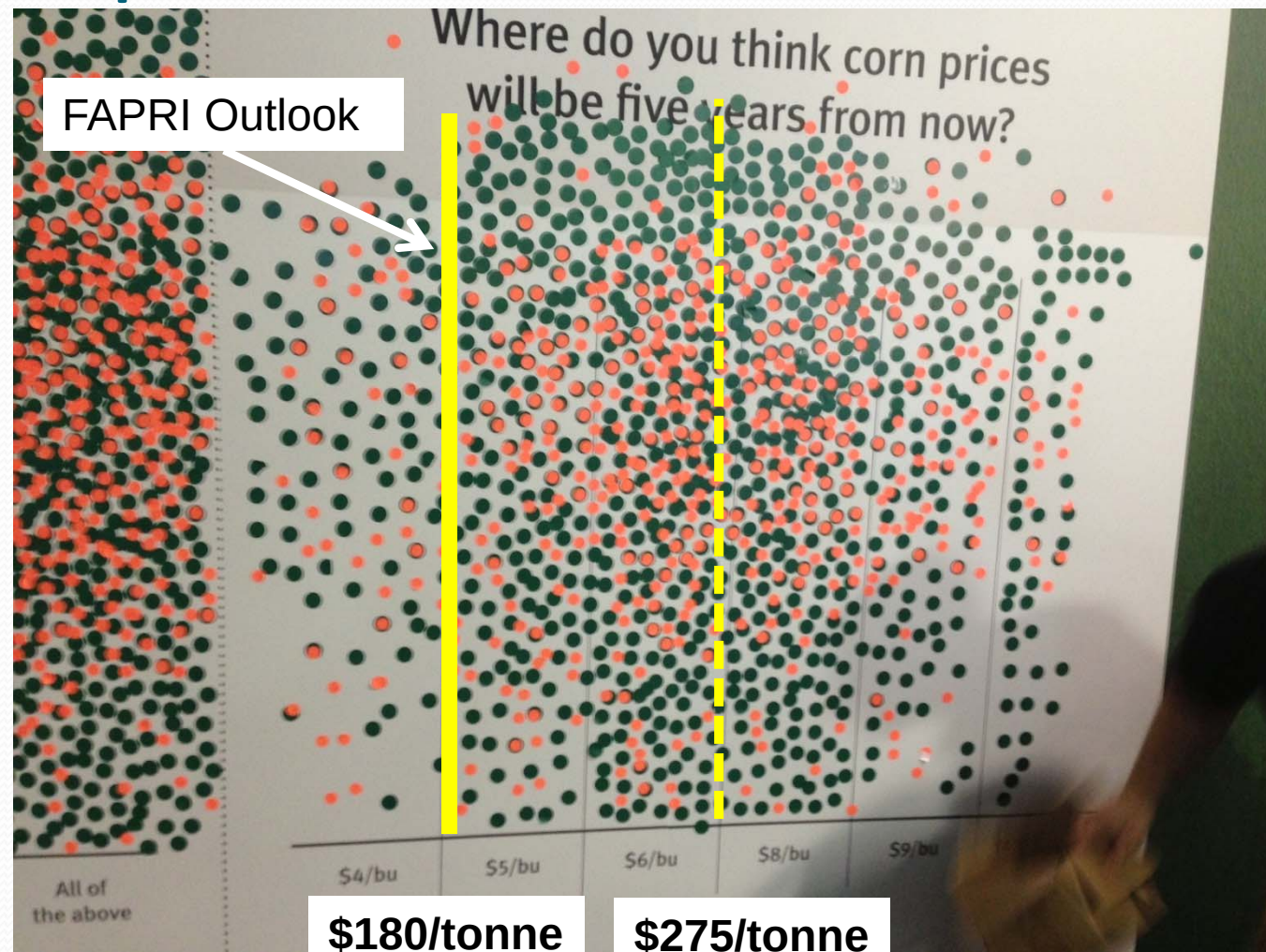
Sharp Price Drop Expected After 3 Years of Low Yield



Farmer expectations and FAPRI's

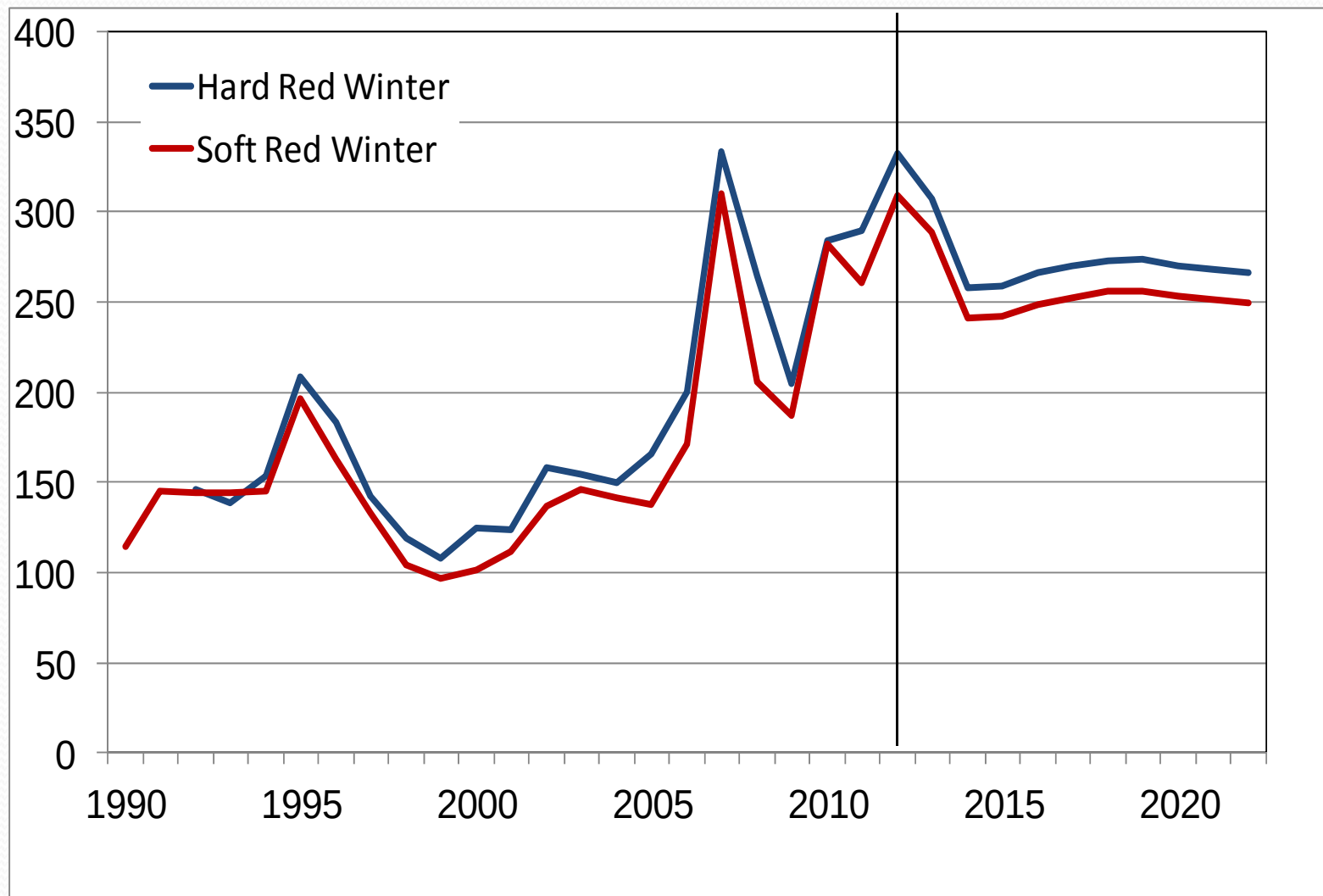
Source: Farmer
meeting in the
midwest

August, 2013

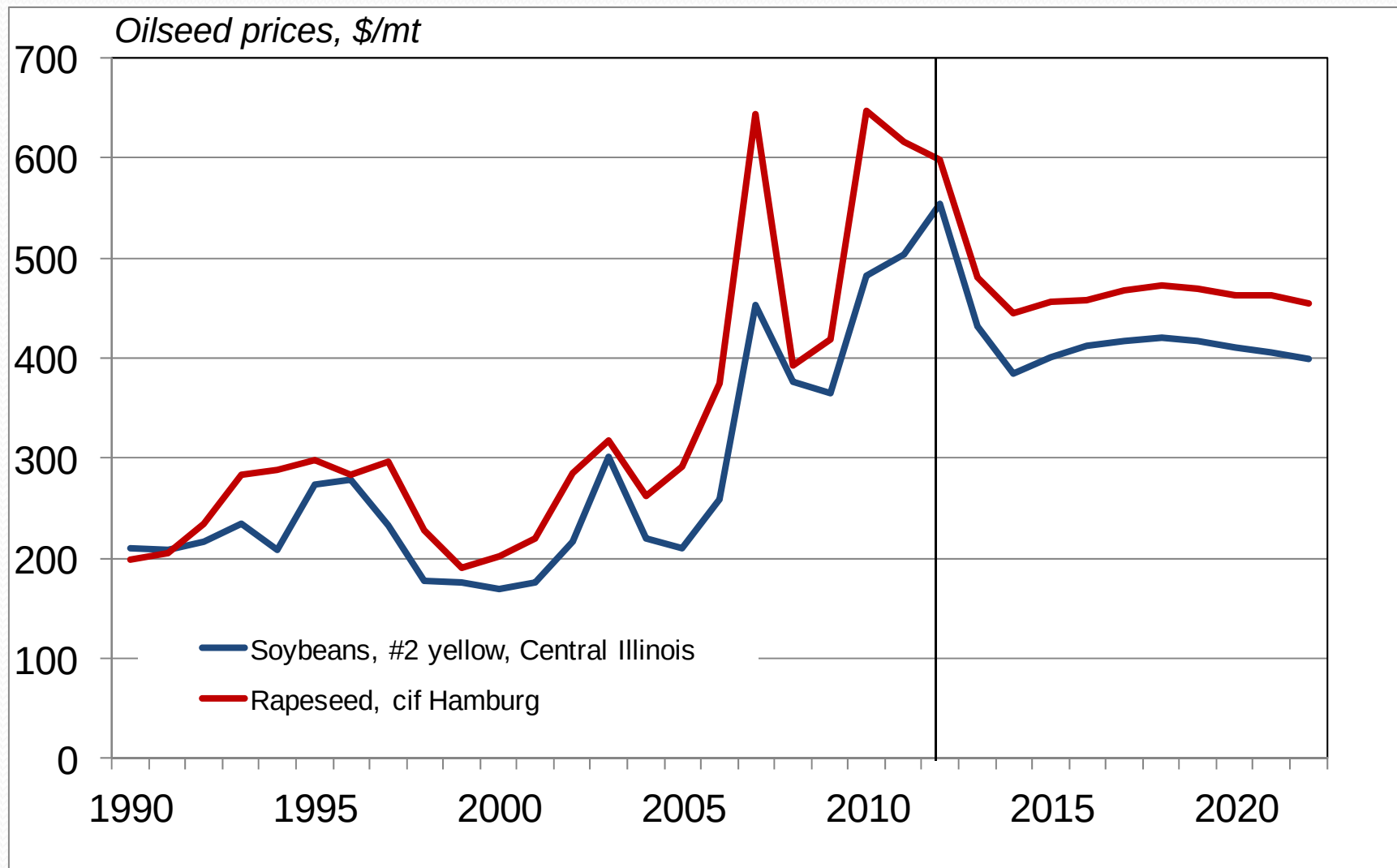


Improved Supplies After 2012 Ease Wheat Price

Wheat price, U.S. Gulf, \$/mt



Oilseed Prices Stay Strong But Not at Record Levels





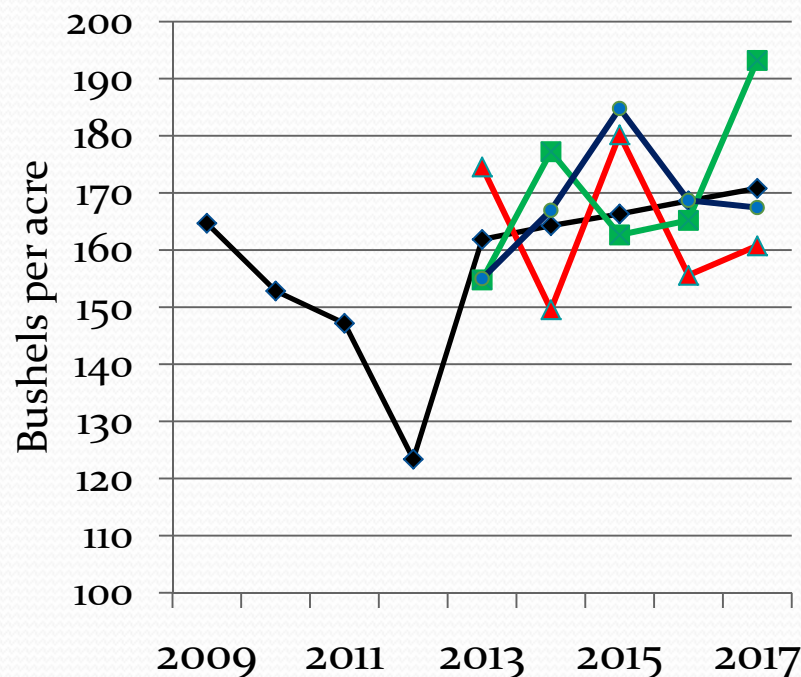
Doing stochastic simulations

- Need to select a set of exogenous variables and get joint distributions
 - US crop yields
 - Energy and input prices
 - Demand equation errors
 - Stock equation errors
 - Export equation errors which combine all foreign origin shocks such as supply, demand and exchange rate shocks
- 500 Random draws from these to generate 500 scenarios
(Meyer et al paper in JIATD)

U.S. corn yields and prices

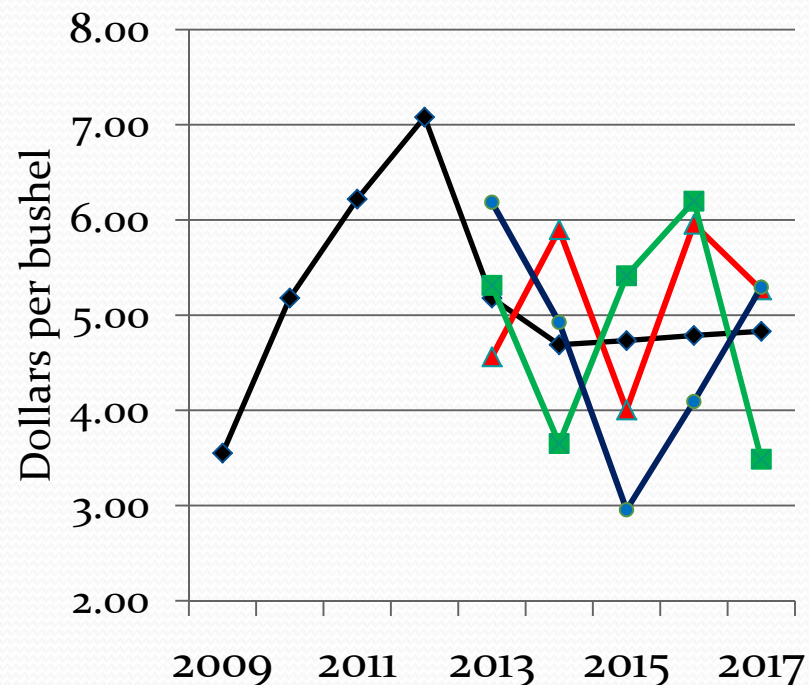
Average and 3 of the 500 stochastic outcomes

U.S. corn yield



◆ Actual/avg. ▲ Outcome #26
■ Outcome #250 ● Outcome #375

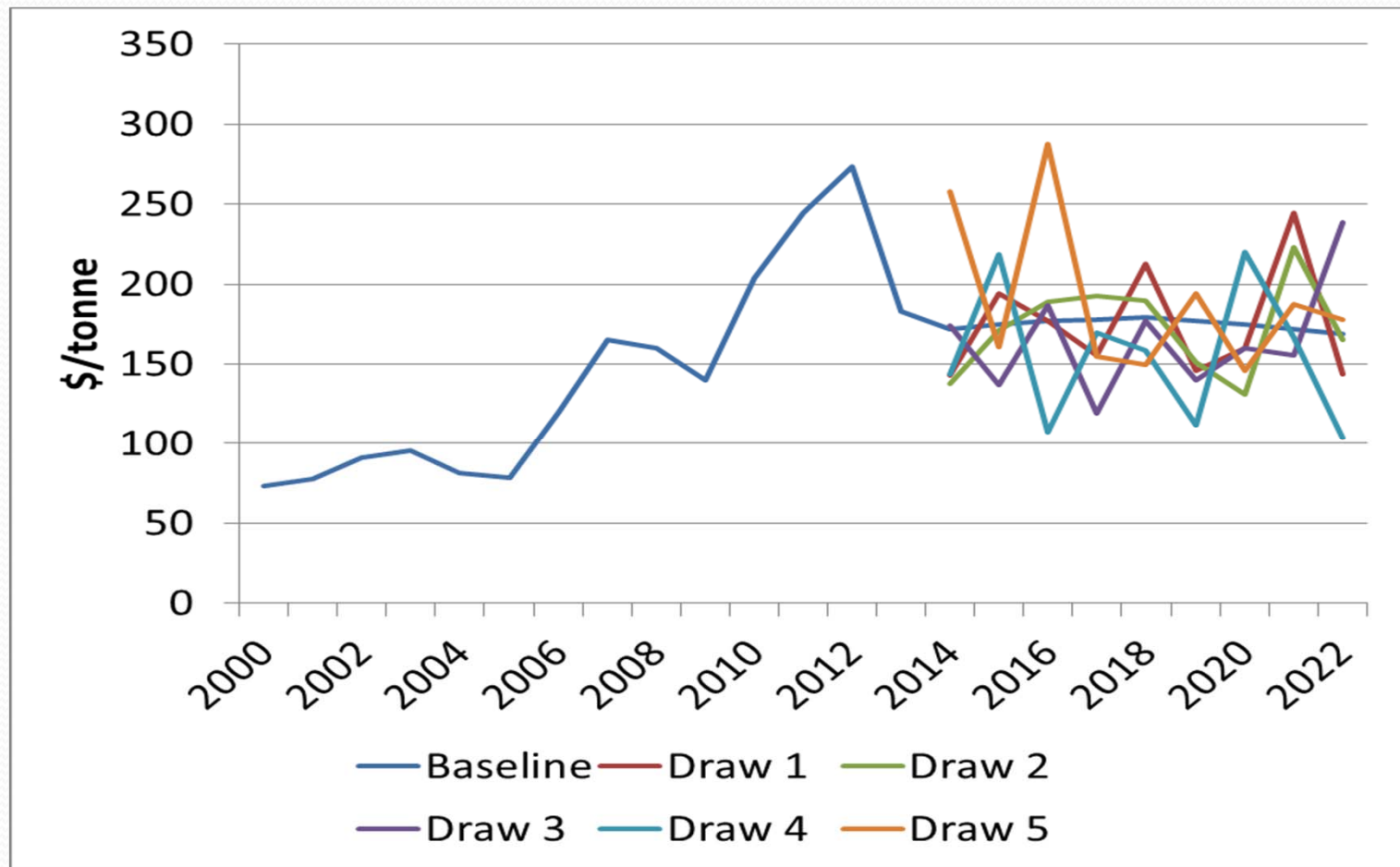
U.S. corn prices



◆ Actual/avg. ▲ Outcome #26
■ Outcome #250 ● Outcome #375

Source: FAPRI-MU stochastic baseline, Jan. 2013

Some alternative US corn price outcomes



Source: Rough calculations based on FAPRI-MU projections August 2013 and January 2013 stochastic baseline

U.S. farm level corn price



Source: Rough calculations based on FAPRI-MU projections August 2013 and January 2013 stochastic baseline



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Congressional farm bill proposals

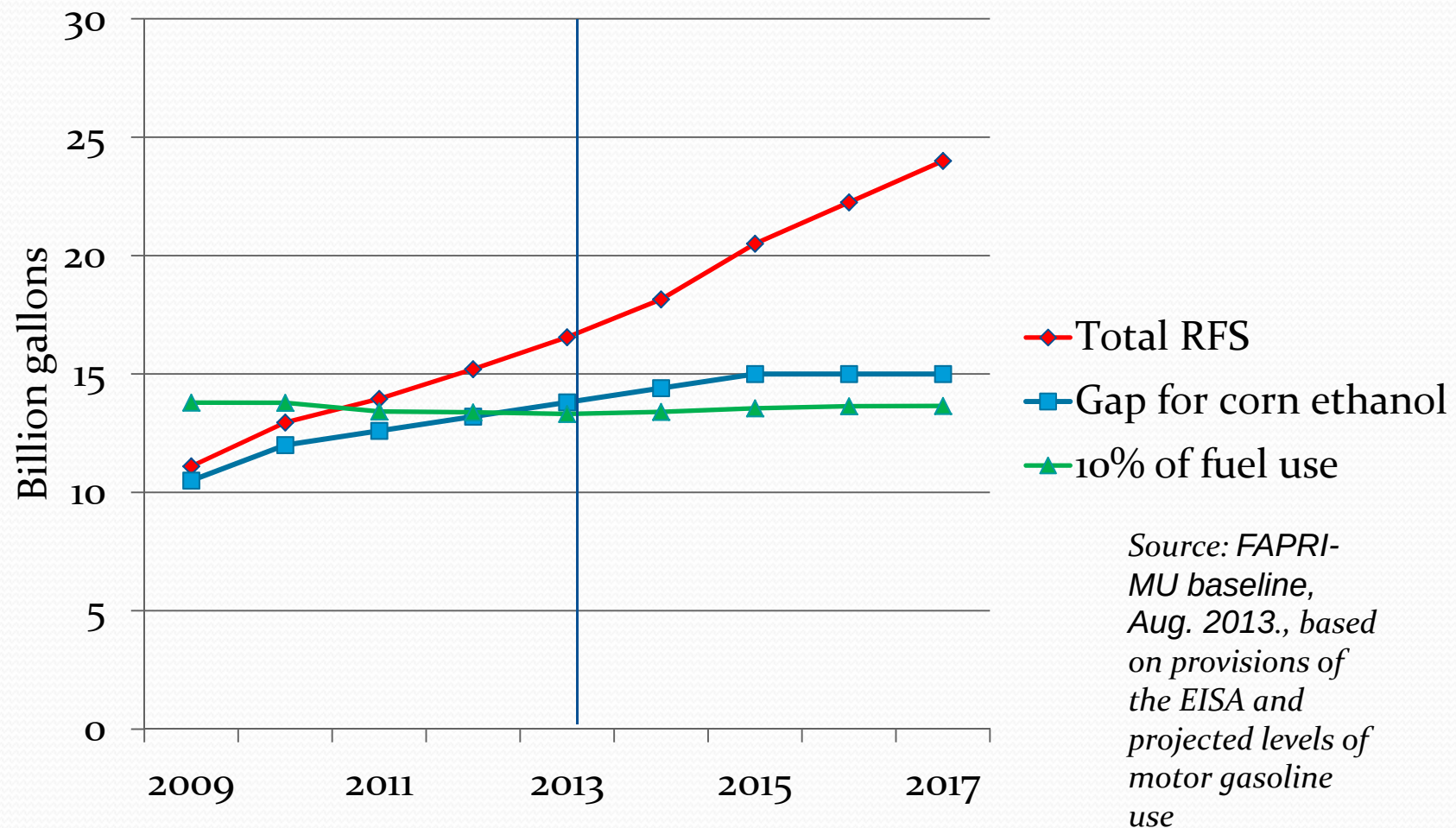
- Both would eliminate many existing farm programs
 - Direct payments, countercyclical payments, ACRE
 - Dairy price supports and MILC payments
- Allocation of “savings”
 - Reduce federal deficit
 - Create new programs that pay farmers when prices or revenues fall below a trigger
 - House and Senate have different proposals for these new programs
- Major difference on SNAP (food stamps)
 - Senate makes relatively small cuts (<1%)
 - House makes about \$39 billion in cuts over 10 years (10x Senate cuts)



Renewable Fuel Standard

- Energy Independence and Security Act
 - Establishes annual Renewable Fuel Standard
 - Mandates for biodiesel, cellulosic biofuels, all advanced biofuels and a total
 - No specific “corn ethanol mandate”
 - EPA can waive portions of mandate
 - Have done so for cellulosic, but without changing other mandates
 - For 2014, expected to change other mandates, too
 - Perhaps (for first time) including share that can be met with corn ethanol

Renewable fuel standard, ethanol use and the blend wall

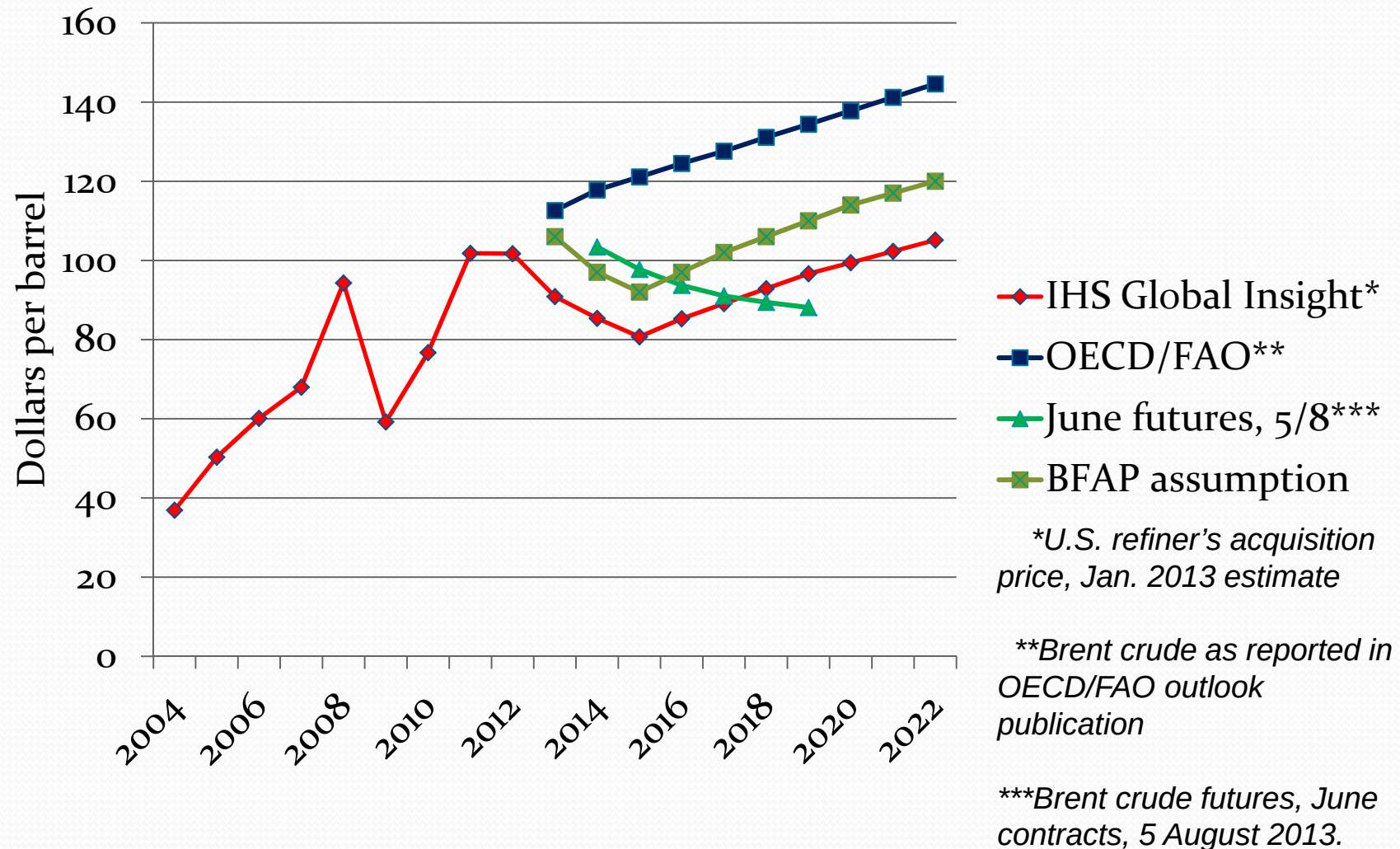




Possible impacts of policies

- US farm bill changes unlikely to have much market impact but RFS might
- EU policy changes may reduce production but also small impact
- Little chance for Doha Round changes
- Larger impacts from energy prices, weather, and macro developments

Alternative views on oil prices



Recent FAPRI analyses

- August baseline update:
 - http://www.fapri.missouri.edu/outreach/publications/2012/FAPRI_MU_Report_o6_12.pdf
- Senate and House Ag. Committee farm bill:
 - http://www.fapri.missouri.edu/outreach/publications/2012/FAPRI_MU_Report_o5_12_Rev.pdf
- RFS waiver options:
 - http://www.fapri.missouri.edu/outreach/publications/2012/FAPRI_MU_Report_11_12.pdf
- Or just visit www.fapri.missouri.edu to see what's new

Thank you!

Contact information:

meyersw@missouri.edu

Analysis of outlook and
US farm bill impacts at:

www.fapri.missouri.edu

farm bill analysis:

[http://www.fapri.missouri.edu/outreach/publications/2012/FAPRI MU Report 05 12 Rev.pdf](http://www.fapri.missouri.edu/outreach/publications/2012/FAPRI_MU_Report_05_12_Rev.pdf)