



## The OECD-FAO Agricultural Outlook : Links to MAFAP

An example for Ghana

# OECD-FAO Agricultural Outlook and MAFAP

- OECD-FAO Outlook now in 8<sup>th</sup> year of collaboration. Success at Global level,
- FAO- Projections team will move into “regional/country outlooks”
- Model based – complete supply disposition of temperate commodity markets.
- International reference price and domestic price determination
- Policy representations – ad valorem taxes/ import tariffs/subsidies/export subsidies
- Parameterization of supply and demand.
- For Africa, countries covered include Egypt, Algeria, Ghana, Nigeria, Ethiopia, Mozambique, Tanzania, Sudan, Zambia, South Africa. Remainder by regions, N. Africa, Other LDC, and Other countries
  - Plan to increase country coverage on resources/needs basis
- **What synergies with MAFAP, and can collaboration work?**



# Countries and regions

<b>Aglink</b>	<b>Cosimo (MAFAP in yellow)</b>			
<b><u>Countries</u></b>	<b>Countries</b>			<b>Regions</b>
Australia	Algeria	Kazakstan	Tanzania	LDC L. America
Argentina	Bangladesh	Nigeria	Thailand	Other LDC Africa
Brasil	Chile	Malaysia	Turkey	Other LDC Asia
Canada	Colombia	Mozambique	Ukraine	Other LDC Oceania
China	Egypt	Pakistan	Uruguay	Other W. Europe
EU-27	Ethiopia	Paraguay	Vietnam	Other C. Asia
Japan	Ghana	Peru	Zambia	Other E. Europe
S.-Korea	India	Philippines		Other M. East
Mexico	Indonesia	Saudi Arabia		Other N. Africa
N-Zealand	Iran	South Africa		Other Africa
USA	Israel	Sudan		



# Aglink – Cosimo Commodities

Wheat

Beef

Skim Milk Powder

Coarse Grains\*\*

Sheepmeat

Whole Milk Powder

Rice

Pigmeat

Cheese

Oilseeds\*\*

Poultry

Butter

Vegetable Oils\*\*

Eggs

Fresh Dairy Products

Oilseed Meals\*\*

Fish

Roots and  
Tubers

Sugar

Ethanol

Bio-diesel

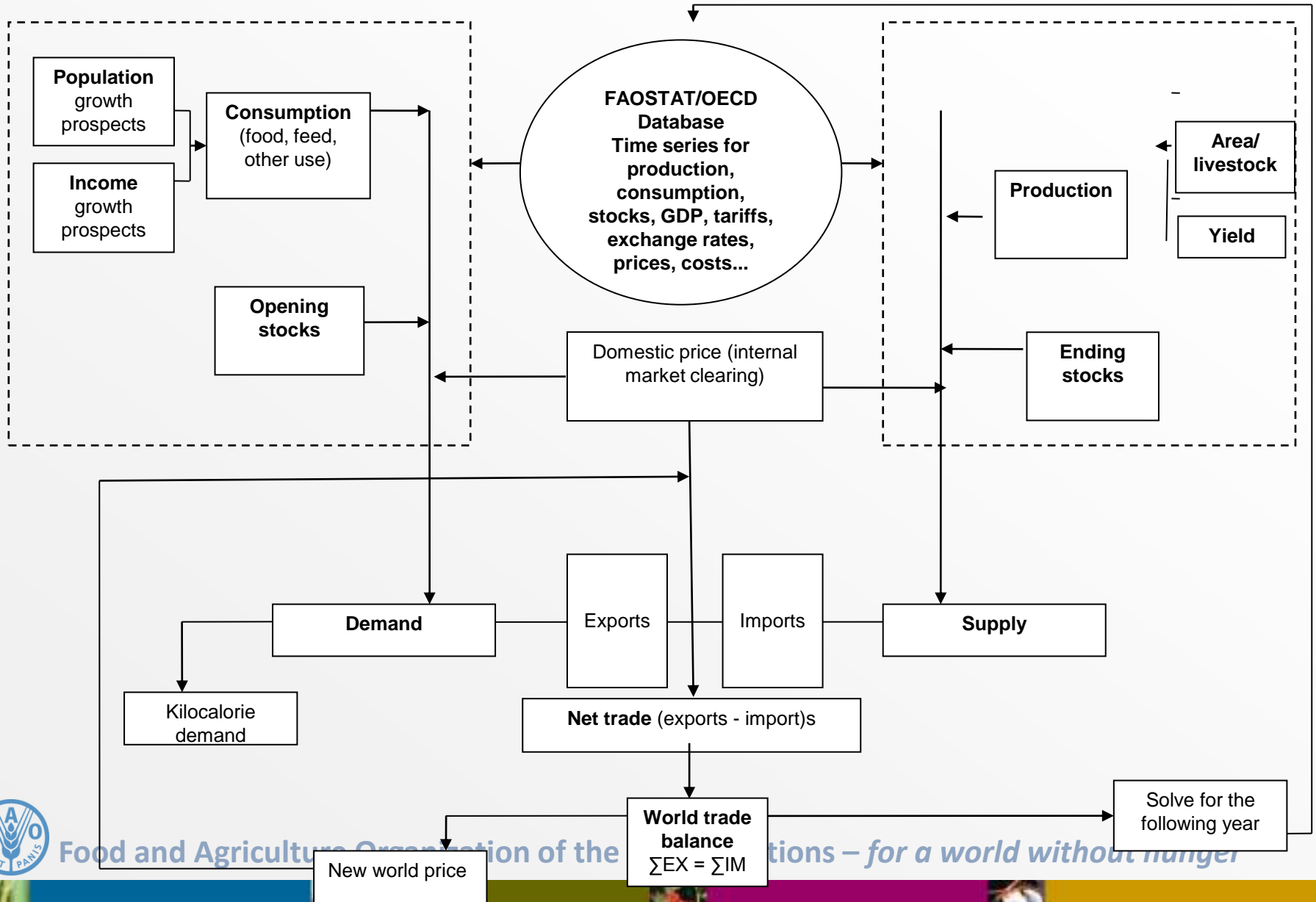
\*\* Indicates sectors which may be disaggregated



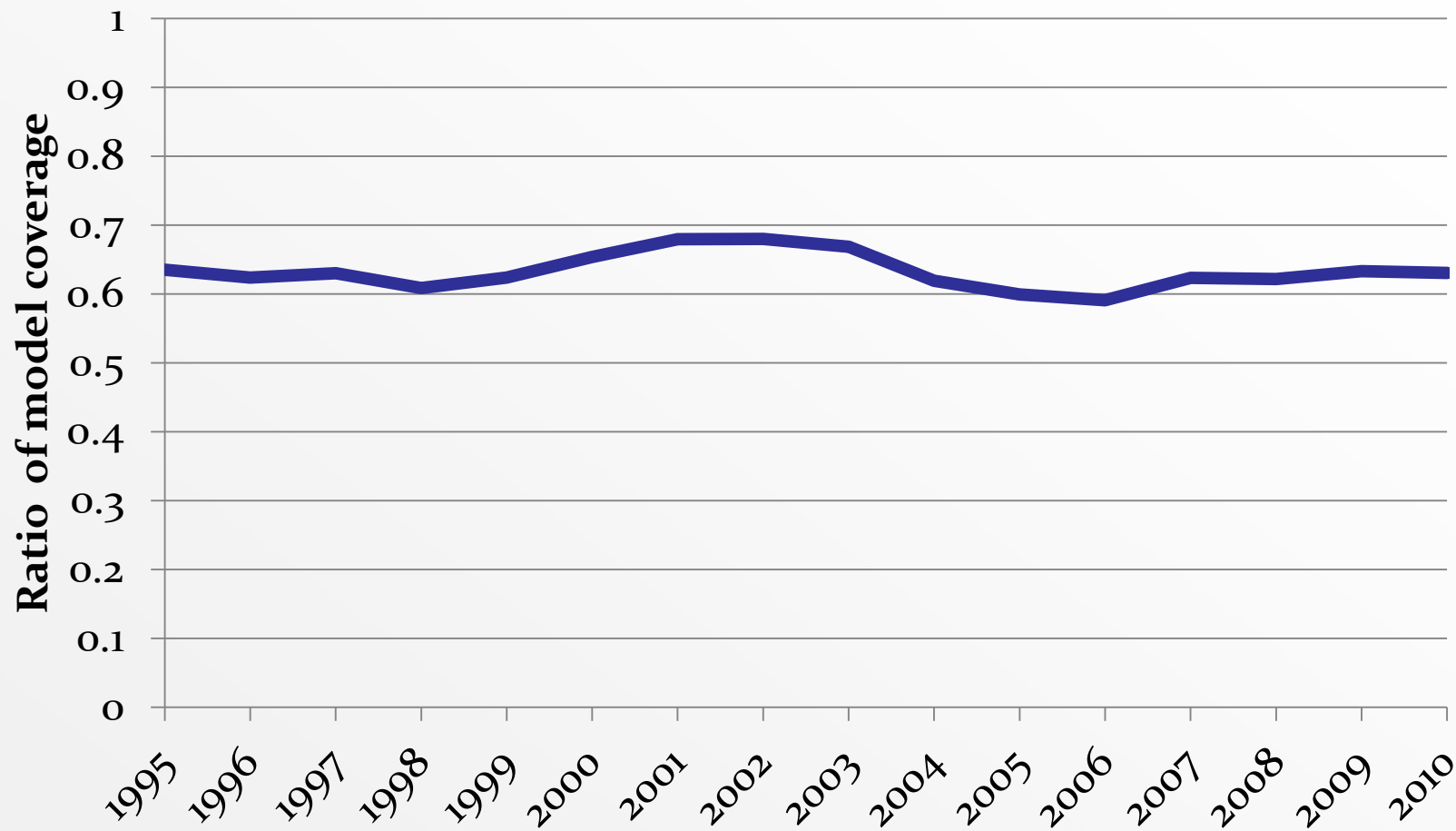
# Comparison for Ghana

MAFAP Commodities	Cosimo commodities
Yams	Roots and Tubers
Cassava	
Cocoa beans	X
Groundnuts	Oilseeds
Beans	X
Maize	Coarse Grains
Sorghum	
Rice	Rice
Palm oil	Palm oil/vegetable oils
X	Wheat, sugar, meat, dairy, eggs, biofuel

# Schematic presentation of Aglink-Cosimo Model



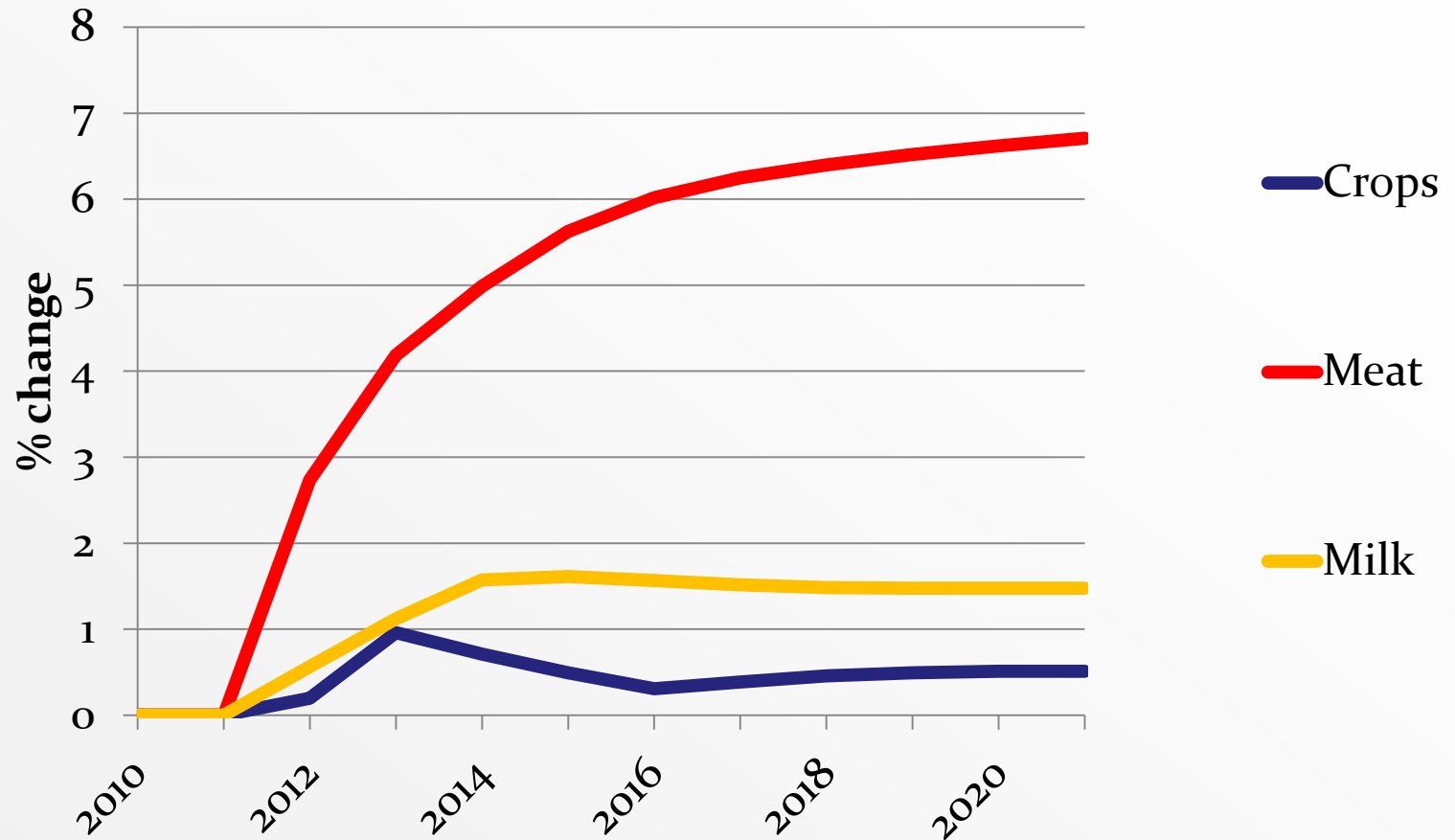
# Ghana: Model coverage (% of net agricultural production value)



Index based on constant 2004-06 dollars

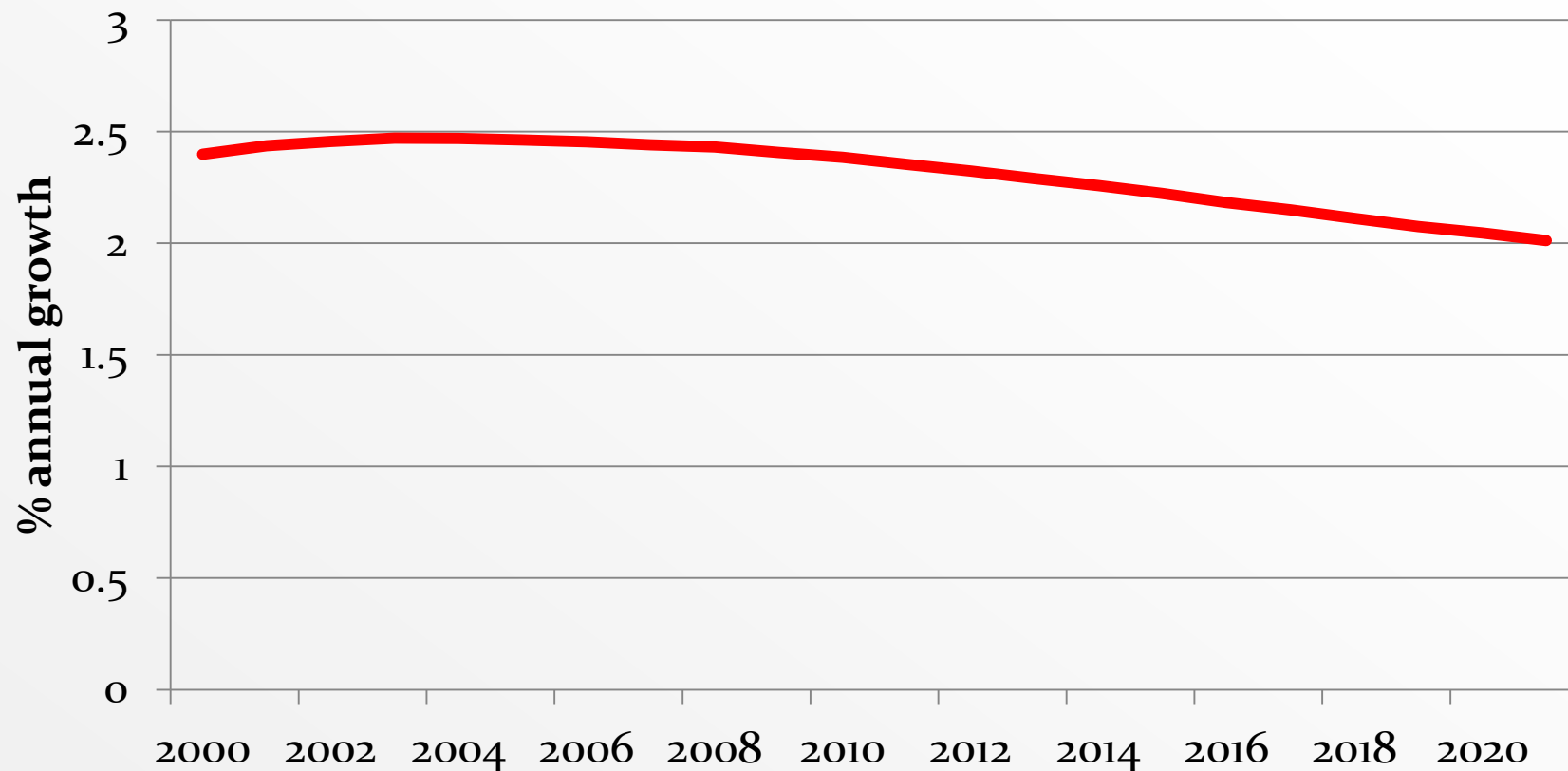


# Ghan supply response: Change in domestic production given 10% shock to world reference prices

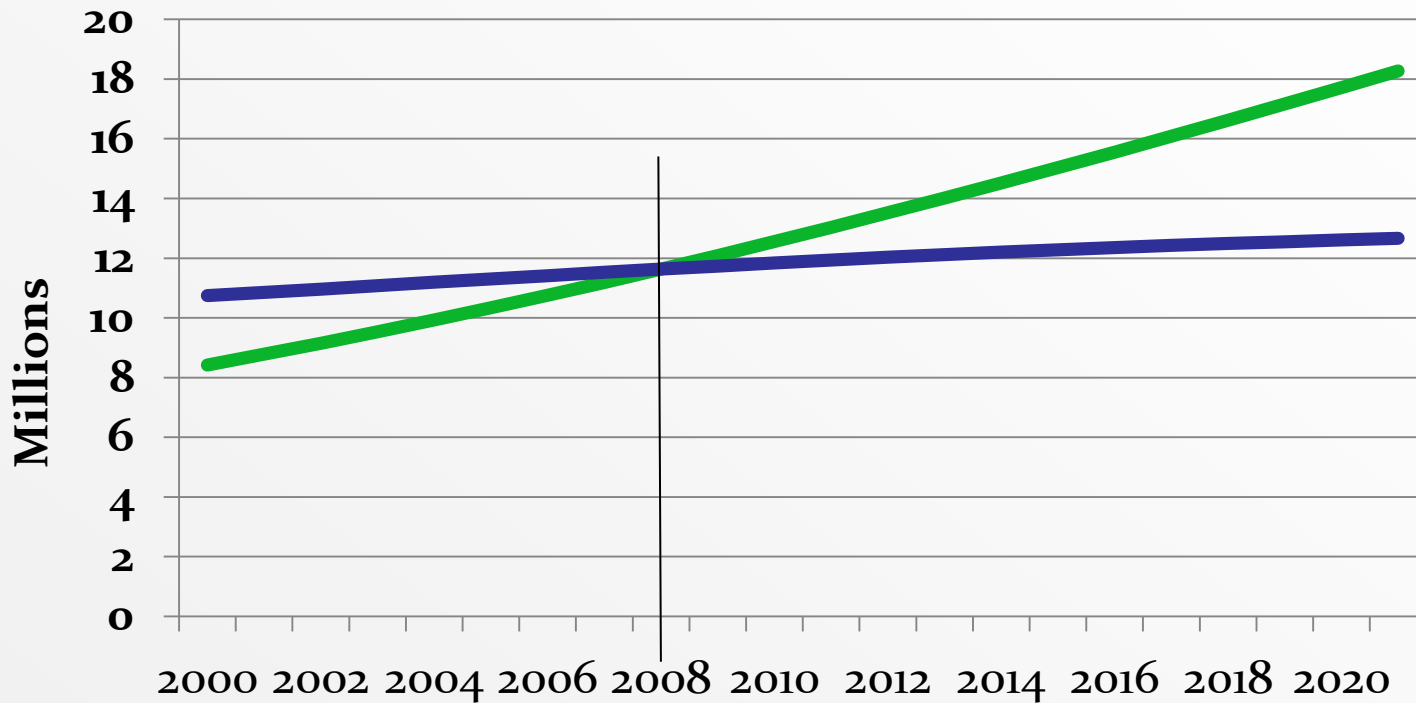




# Outlook: Ghana's population growth strong but declining to 2% range by 2021



# Population growth higher in urban areas, and exceeds rural population

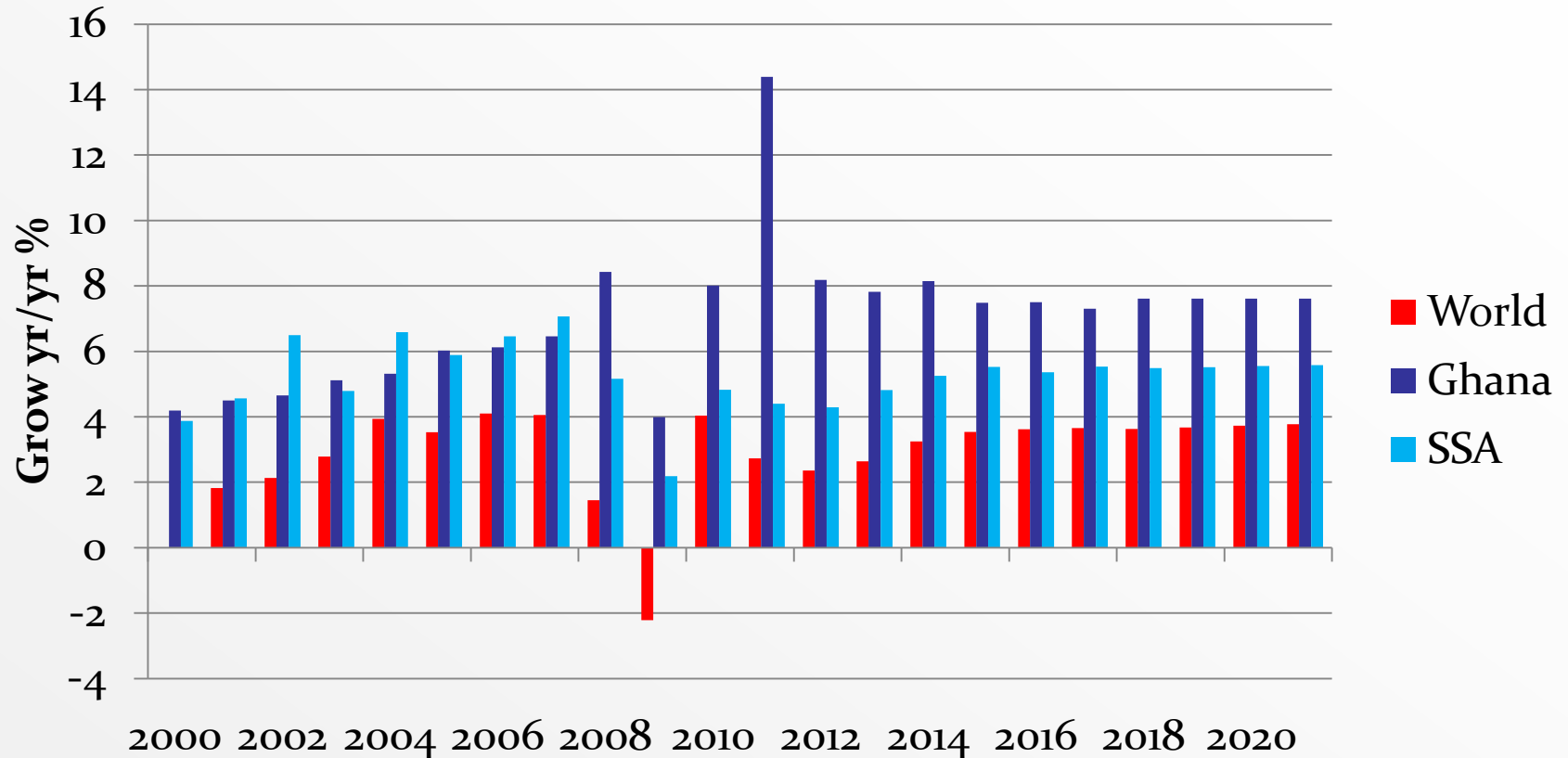


Source: UN-Statistics/population 2010



Food and Agriculture Organization of the United Nations – *for a world without hunger*

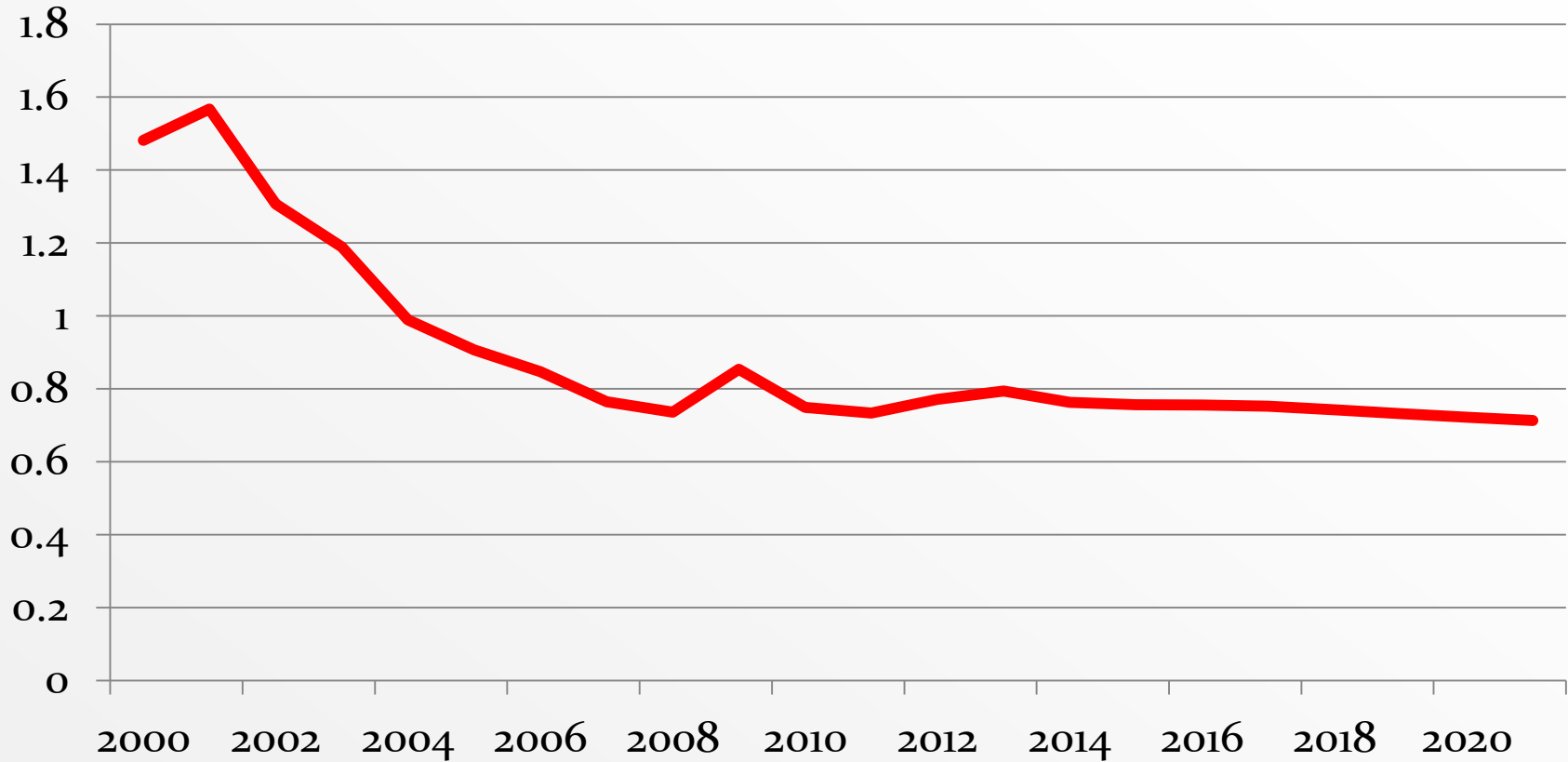
# Global GDP growth has slowed. Ghana is anticipated to remain strong



WEO – Oct 2012



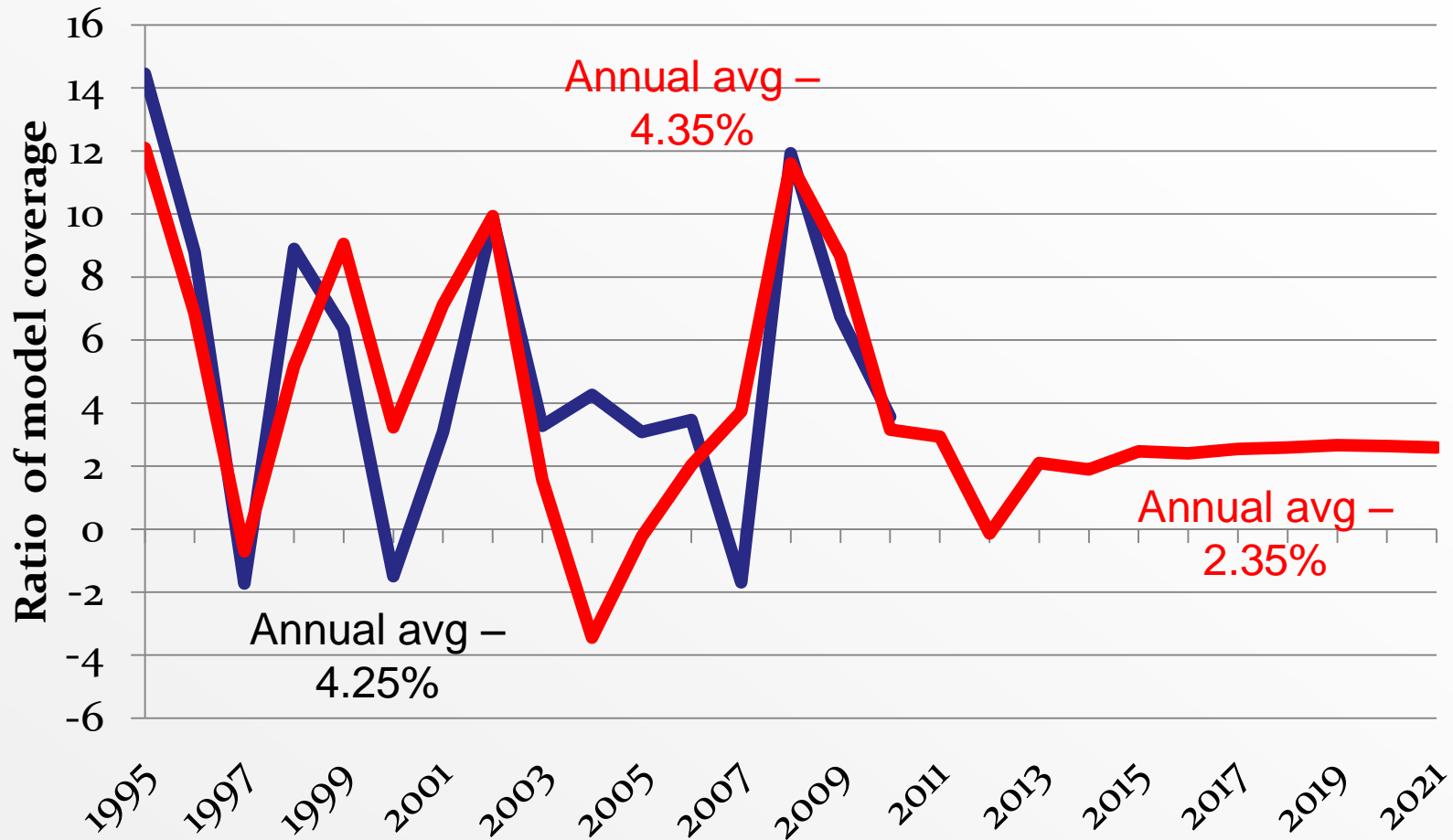
# Ghana's currency has appreciated in real terms and may remain strong



WEO – Oct 2012

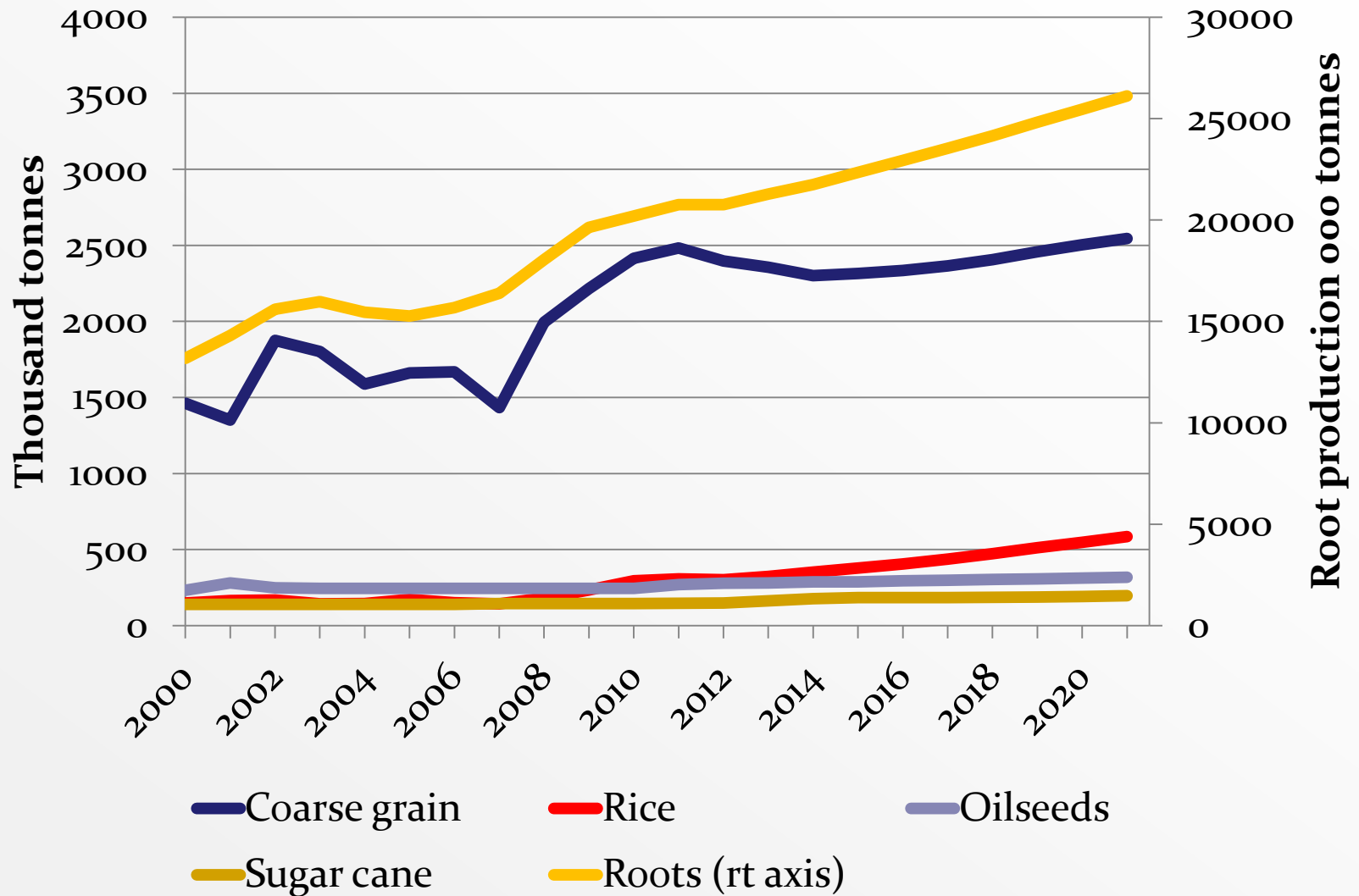


# Model's net agricultural production value tracks annual changes of FAOSTAT: Projected growth is slower

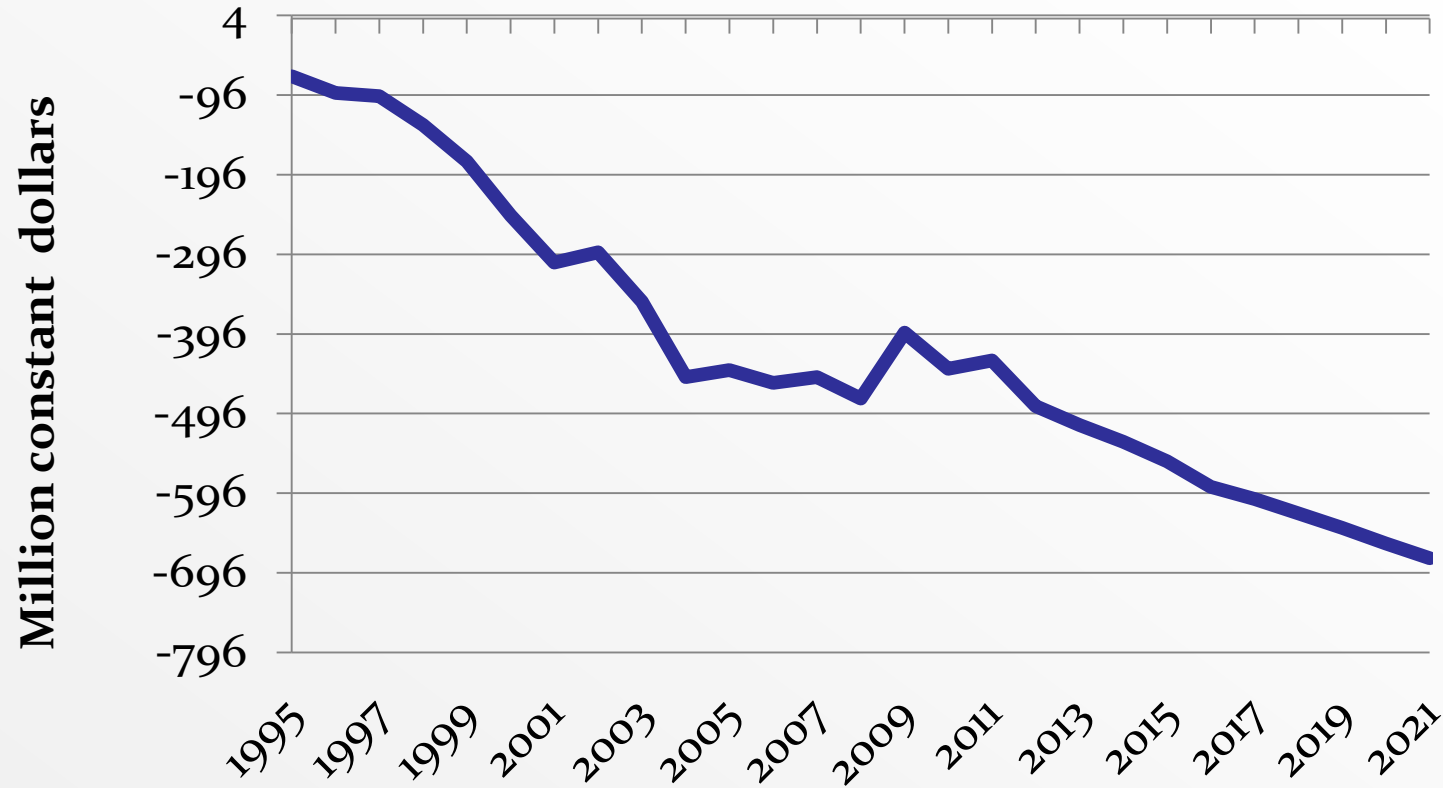


Index based on constant 2004-06 dollars

# Production is dominated by roots, by far. Future rice production cuts into coarse grain production

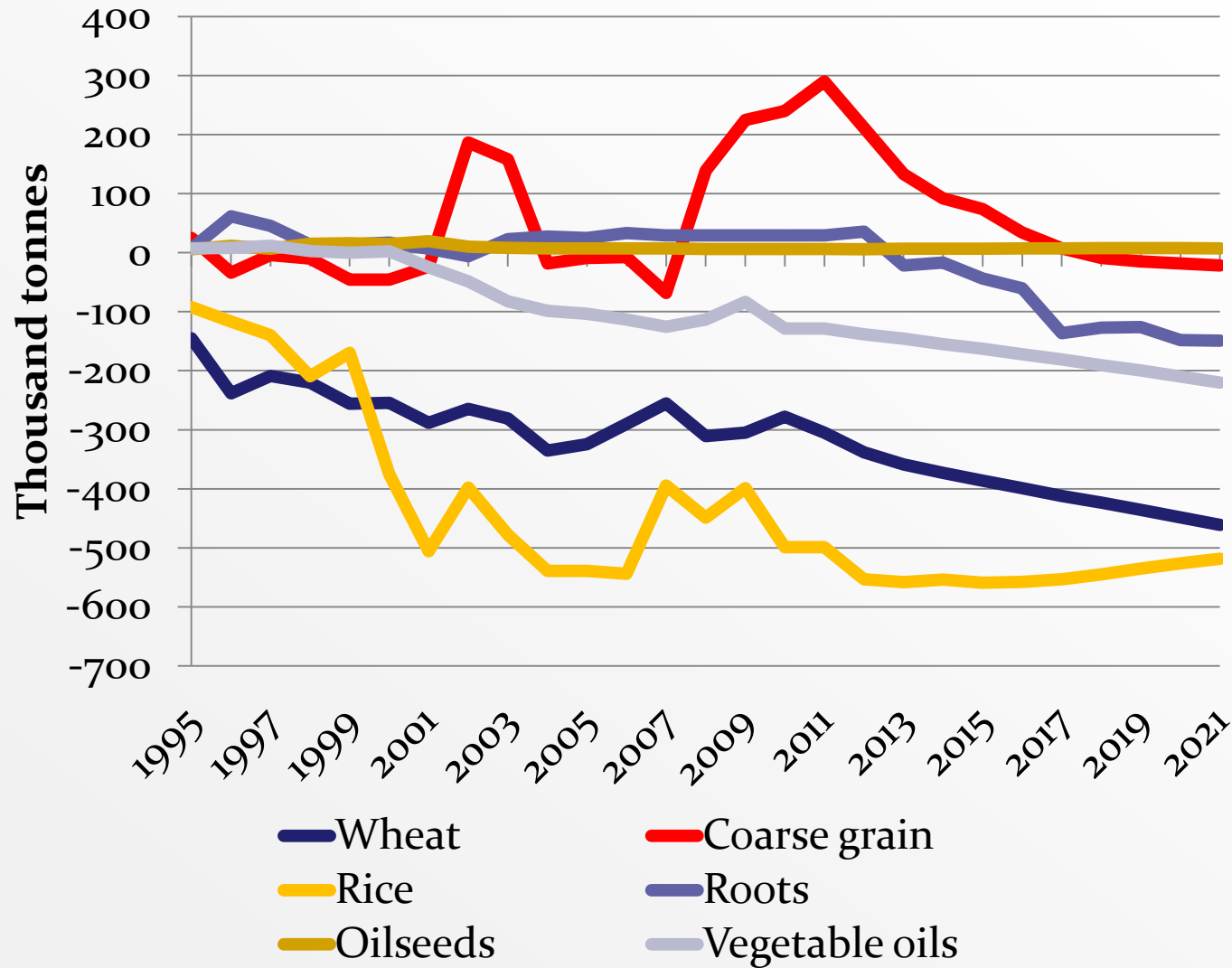


## Net trade in volume terms: demand outstripping supply



Index based on constant 2004-06 dollars at  
international prices

## Net trade is deteriorating for all crops (?)

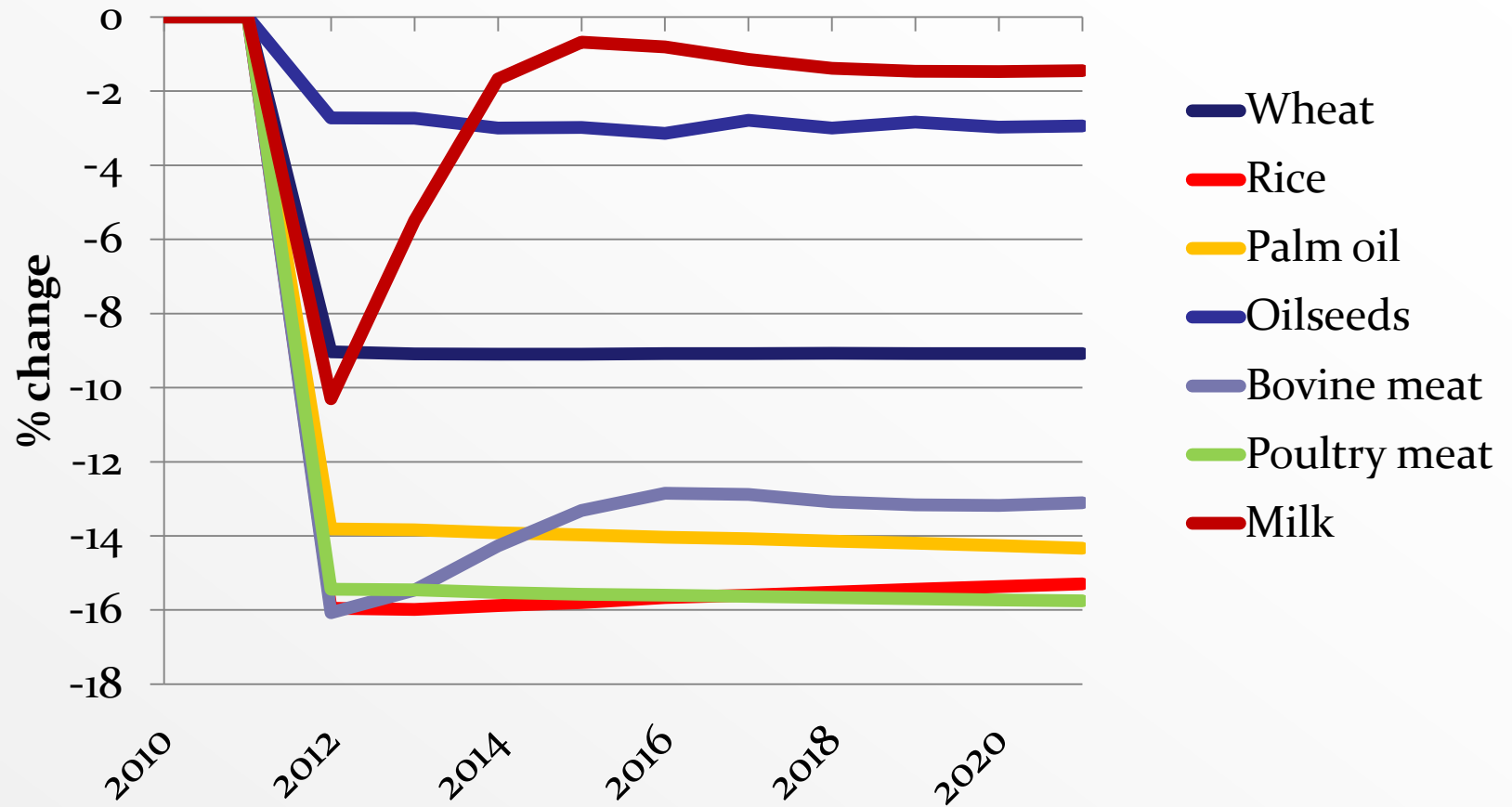




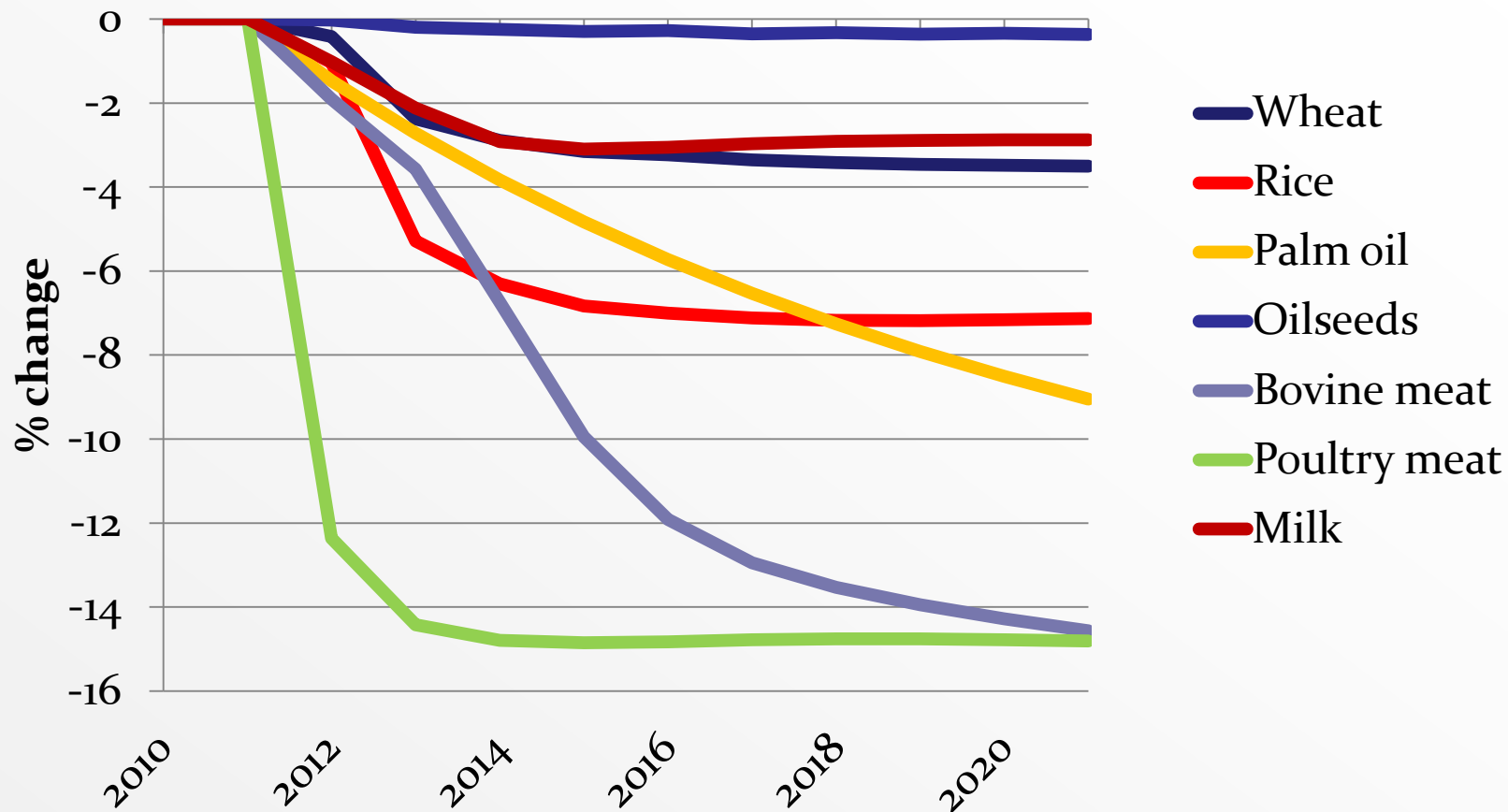
# What about policy analysis?

- Policy monitoring of MAFAP for Ghana generates useful data on policies, and and at what point they impact production, consumption and trade
  - Overall, extensive disincentives exist for production but these vary by commodity
- **Can the model be used to assess the impact of policy changes?**
  - Impact of tariff change
  - Changing the wedge from export/import prices to domestic prices
- It is important that policy assessment also provide a forward looking assessment of the costs, benefits and implications of changes.

# Impact of tariff elimination on farm prices of selected commodities



# Impact of tariff elimination on farm production of selected commodities



# Conclusions

- **What synergies between OECD-FAO Outlook and MAFAP, and can collaboration work?**
- **Yes. But work is needed**
  - More attention to African countries is required. Existing outlook expertise for many countries is limited. Data are often questionable.
  - Extend commodity space, particularly to commodities which may be country specific such as cocoa in Ghana
  - Specification of important commodities such as roots and tubers needs to be considerably improved.
  - Re-specification of price relationships between port and producer may be needed for some types of scenarios
- **Collaboration could be mutually beneficial**
  - Improving data sets
  - Specifications may help in assessment of policy change.
  - Experts in MAFAP countries could review outlook projection and provide improve messaging at local, not just global levels.

**OECD-FAO  
Agricultural Outlook  
2009-2018**

**HIGHLIGHTS**



**Crop Prospects and Food Situation**  
No. 8 November 2009

**HIGHLIGHTS**

- FAO's latest forecast confirms a good 2009 world cereal production, slightly above last year's record level, which, together with larger carryover stocks from the previous season, have resulted in ample market supplies.
- In the group of 77 low income food deficit countries the 2009 aggregate cereal production is forecast marginally below last year's record level. A sharp reduction in maize rice crop is anticipated for generally good crops are expected elsewhere.
- International prices of wheat and maize, which had returned to normal levels by September, strengthened in October. Rice report prices continued to decline from the 2008 peak but remain well above pre-crisis levels.
- In LDCs food price remains, in general, significantly higher than in the pre-food price crisis period of two years earlier, which continues to give rise to concern for the food security of vulnerable populations.
- The ongoing weak to moderate El Niño will likely continue through the end of the year and into early 2010. The situation needs to be closely monitored particularly in regions prone to be affected by the event such as Latin America and Southern Africa.
- Hurricane Ida in early November resulted in heavy rains, floods and landslides in Central America continuing affected by El Niño related drought. Loss of life, government displacement and damage to infrastructure and agriculture are reported in El Salvador and Nicaragua.
- Despite a satisfactory global cereal supply situation, 31 countries around the world require external assistance because of critical food insecurity. Of particular concern are the Eastern Africa subregion where more than 20 million people are estimated to be in need of emergency food assistance due to poor rainfall in parts, coupled with existing conflicts and displacements, particularly in Somalia, Kenya and Ethiopia.

**Percentage of countries' wheat latest price quotations are higher than specified period or the maximum on record**

**Selected international oil prices**

**Percentage of countries by region**

**FAO price indices for oilseeds, oils and meals**

**GIIEWS** global information and early warning system on food and agriculture

**World Food Situation** <http://www.fao.org/worldfoodsituation/>

**Global Information and Early Warning System on food and agriculture**

- Drought in Southeast Asia affects parts of Bangladesh, Myanmar, Thailand, Lao PDR, Cambodia and Viet Nam
- Tonga- Impact assessment indicates severe damage to agriculture following Tropical Storm mid-February
- GIIEWS Special Report - ETH/OPA - 26 February 2010
- Latest GIIEWS Country Briefs

**Analyses and Reports**

**Short-term**

- Food Outlook
- Crop Prospects and Food Situation
- Crop and Food Supply Assessment Reports
- Oilseeds and Oil Price and Policy Update
- Rice Market Monitor

**Medium to long-term**

- OECD-FAO Agricultural Outlook 2009-2018: Highlights
- How to Feed the World in 2050
- World Agricultural Trends 2015/2030
- Archive

**Commodities and Markets**

- Grains
- Rice



**Oilcrops, Oil & Meals**  
MONTHLY PRICE AND POLICY UPDATE  
No. 15, May 2009

**Global price review**

In April, world prices for oilseeds and derived products remained firm. At 157 and 174 points respectively, the FAO price indices for oilseeds and oilmeal remained above unchanged compared to last month and thus above the biennial average. Moreover, the index for oilseedcaking gained one more point, again approaching the exceptionally high level recorded in 2007/08.

The soybean complex with its ongoing harvest in South America is currently dominating developments in the global market. Despite continuation of a record soybean output in South America, the region's current export availabilities fail to match global import demand, causing price firmness. On the export side, South American farmers are expected to be holding back sales in expectation of further price improvements. In addition, continued logistical difficulties per reported and a winter action cannot be excluded in Argentina. On the demand side, import soybeans and their meals continue to be strong and direct exportations, reported in China, increasingly optimistic crop prospects for reported in a number of countries, including China, the EU, CN and Australia, combined with rising oil demand also contributed to the current price firmness.

Markets for oilseeds have remained on the influence of the projected slow pace of production growth. Moreover, demand for reported oil continues to benefit from the firmness in demand of prices. By contrast, the softening oil supply situation is expected to have had a more muted, mainly on account of strong crushing and exportation in the US.

**FAO price indices for oilseeds, oils and meals**  
(monthly values, 2002=100)

**FOCUS**

Recent developments in world agricultural markets for basic food commodities have raised concern about a possible return to another round of high prices. In general, however, the difficulties facing markets today are different from those experienced during the 2005/06 food price surge. The FAO Food Price Index, a measure of the monthly change in international prices of a food basket composed of wheat, oilseeds, dairy, meat and sugar, has risen continuously since August 2007, a trend shared by nearly all its components. In November the index averaged 168 points, the highest since September 2008, although still 21 percent below its peak in June 2008. From the price spike of 2007/08, the index never exceeded 120 points and, for most of the time, was below 100 points.

The unexpected rise in international prices of commodities, such as that witnessed in 2005/06, elicited considerable attention and debate about the nature and relative weight of the factors underlying the price surge. Determining such factors and their relative weights, which is critical for understanding how markets will evolve, not only in the coming months (the time horizon of the Food Outlook publication) but also in the longer term, remains a challenge. At the onset of the price surge in 2007, FAO identified a number of possible causes contributing to the price rise. Two levels of world supply deficit, crop failures in major exporting countries, rapidly growing demand for agricultural commodities for biofuels, and rising oil prices. As the price strengthening accelerated, several other factors emerged to reinforce the upturn. Most importantly, government export restrictions, a weakening US dollar, and a growing appetite by speculators and index funds for value commodity portfolio investment on the back of enormous global reserves hoarding. What made the 2007/08 price spike exceptional was the confluence of all many factors culminating in an unprecedented price rally and the fading of volatility.

The agricultural market situation today is different from that of 2005/06. World wheat stocks are at or near comfortable levels than they were two years ago, with the stock-to-use ratio at almost 23 percent. A percentage points more than at the time. Similarly, the balance of world supply and demand is not even close of commodities, with some markets facing tighter conditions than others. But, in general, supplies held by exporters are far more adequate to respond to rising demand than they were during the price surge period. For example, the wheat stock-to-use ratio in major exporting countries has risen from 12 percent in 2005/06 to 23 percent this season. On the demand side, biofuels remain a leading driver, but the per-capita growth has slowed down compared with the past few years. In the United States, the largest user of grains for biofuel production, the use of maize for ethanol has grown by 14 percent this season, down from 42 percent in the run-up of the high price period.

On the other hand, major economic factors, exchange rates, volatility of prices and, once again, the highly volatile international oil market continue to contribute to market uncertainty, which food markets have to watch. There is a strong argument that the interplay of these factors, in terms of their impacts on agricultural commodity prices, has increased significantly in recent times. Although supply and demand fundamentals will continue to shape commodity markets, the now entrenched susceptibility of the global food system to external non-food economy events requires continuous vigilance.

**GIIEWS** global information and early warning system on food and agriculture

**The State of Agricultural Commodity Markets**  
High food prices and the food crisis – experiences and lessons learned

**Rice Market Monitor**

**April 2010**  
**Volume XIII - Issue No. 1**

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**FAO Food price indices (2002=2004=100)**

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