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## **Grain Stock Management in the Context of Liberalized Agricultural Markets and Trade: Recent Country Experiences and Emerging Evidences**

**David Dawe, Cristian Morales-Opazo, Jean Balié, and Guillaume Pierre**

*Selected Paper prepared for presentation at the International Agricultural Trade Research Consortium's (IATRC's) 2014 Annual Meeting: Food, Resources and Conflict, December 7-9, 2014, San Diego, CA.*

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# How much have domestic food prices increased in the new era of higher food prices?

David Dawe, [Cristian Morales-Opazo](#), Jean Balie,  
Guillaume Pierre

FAO-ESA





## Why domestic?

- It is important to understand the behaviour of domestic staple cereal prices as distinct from world market prices, and after adjusting for inflation
- The focus of this paper is on domestic market prices, because these are the prices received by farmers and paid by consumers.



## Why cereals?

- It is also particularly important to understand the behaviour of cereal prices (as distinct from prices of meat, dairy, fruits, vegetables and other foods), because cereals are the most important expenditure item for the poor and food insecure.
- In addition, even though cereals are often missing many key micronutrients, cereal prices are crucial for nutrition because higher cereal prices can crowd out expenditures on more nutritious foods



## Objetive

The objective of this paper is to analyze and describe the behaviour of domestic staple food prices in Low and Middle Income Countries (LMIC) since the beginning of the food price crisis, including comparisons across regions, countries and three cereals



## Data and Method

\*Prices are in local currency

\*\* GIEWS price database

\*\*\* We applied a set of ordered selection criteria

\*\*\*\* 103 cases in 59 countries ; 44 cases- rice ; 32 cases-maize; 27 wheat

\*\*\*\*\* Prices are in real terms CPI from IMF

\*\*\*\*\* We transform each series of real local currency prices into an index with base 100 in January – June 2007.



## Data and Method

We combined these indexes to form a composite index that incorporates all of the countries in the database, using as weights the share of consumption of each respective cereal in total human consumption in low and middle income countries in 2011

Composite subindices are also calculated for Africa, Asia and Latin America.





# Global Broad patterns in domestic prices since 2007

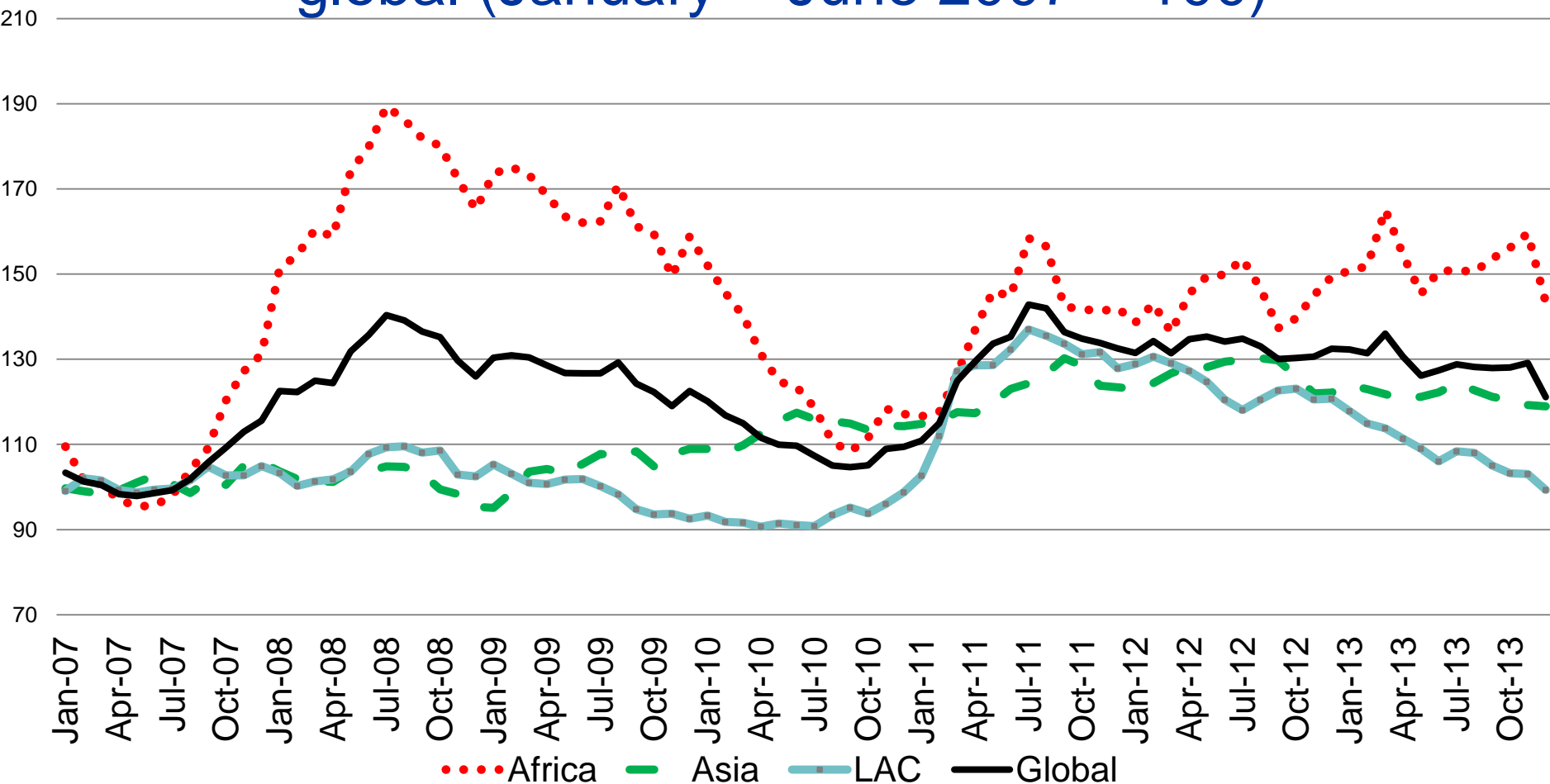
**\*Jan-Jun 2007 vs AVG 2013:** average real domestic prices in low and middle income countries increased by approximately **19** percent for rice and wheat and **29** percent for maize.

**\*\*Peak index :** wheat **127** in may 2008; rice **122** august 2008; maize **143**

**\*\*\*** 28 percent of the cases had lower real prices in 2013 than in the first half of 2007

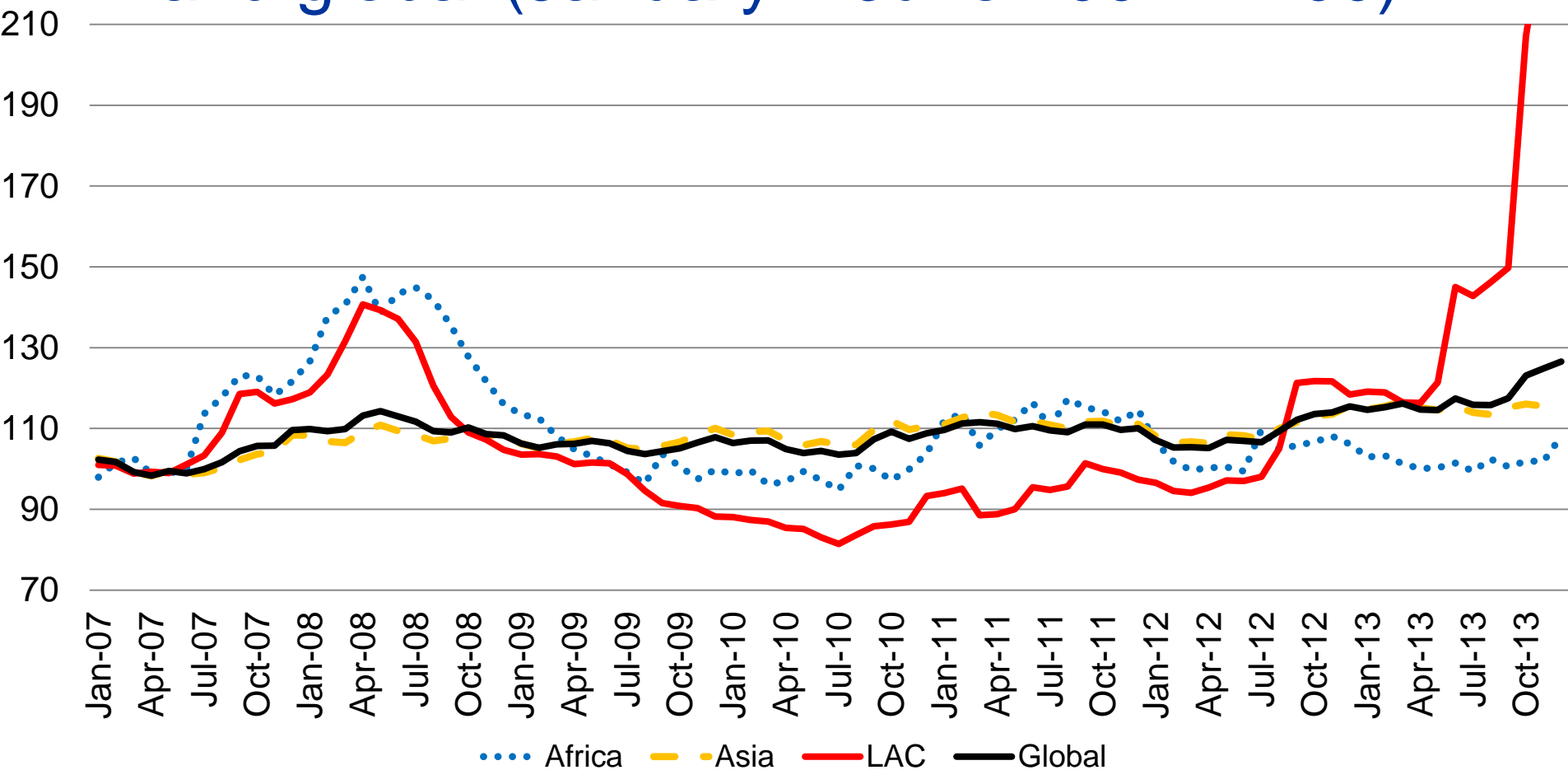


## Indices of domestic maize prices, regional and global (January – June 2007 = 100)



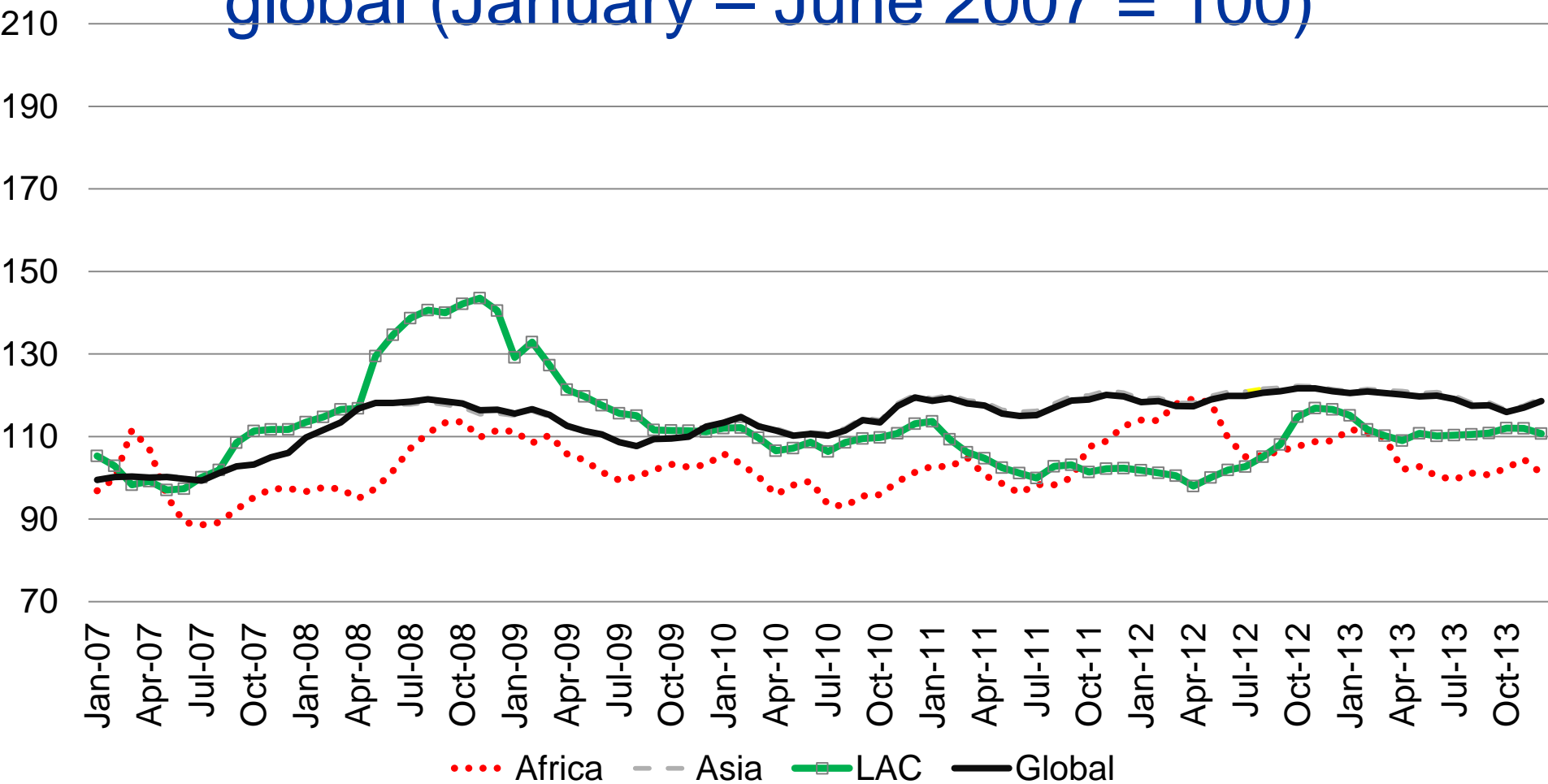


# Indices of domestic wheat prices, regional and global (January – June 2007 = 100)





# Indices of domestic rice prices, regional and global (January – June 2007 = 100)

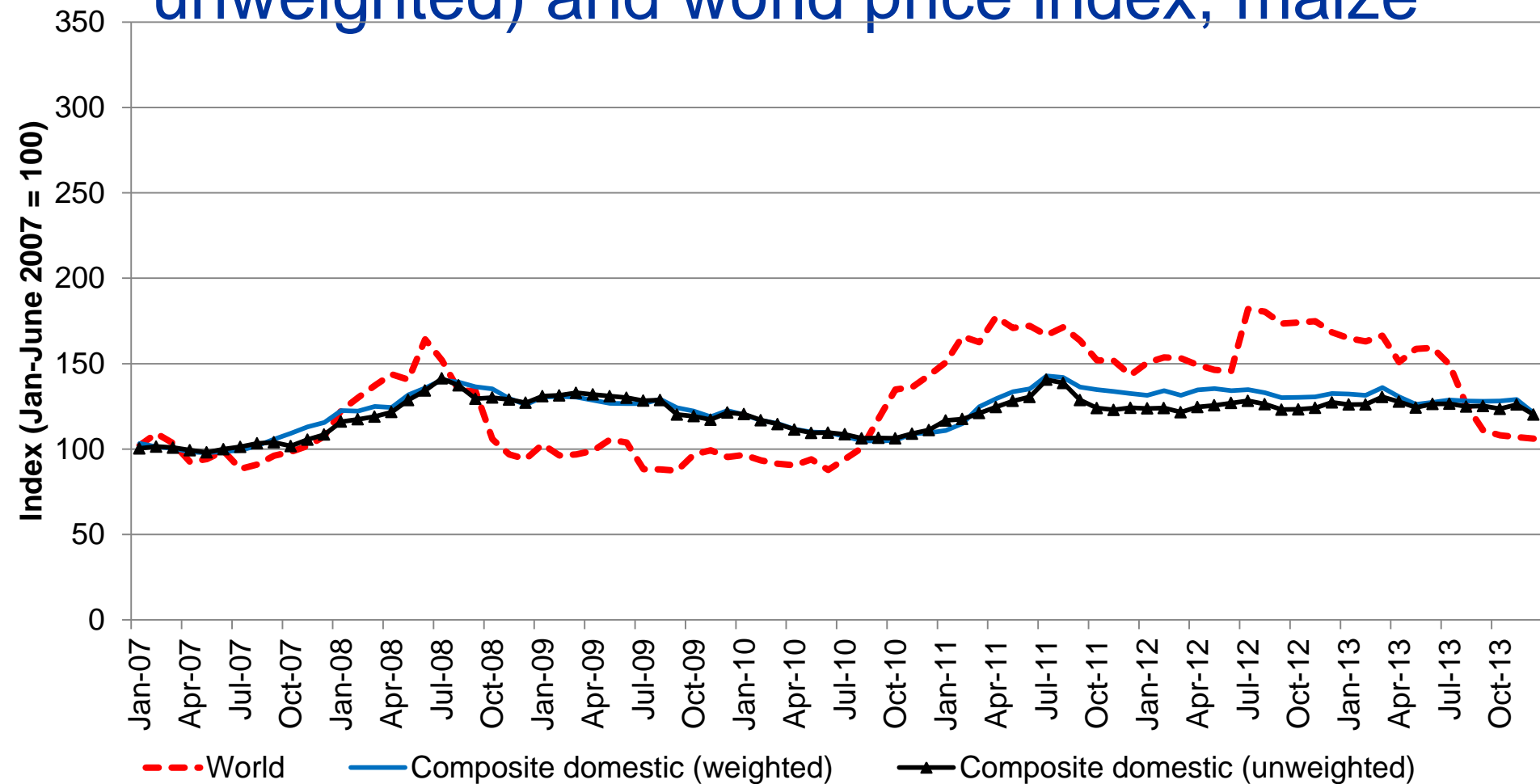




# Price movements on domestic and world markets

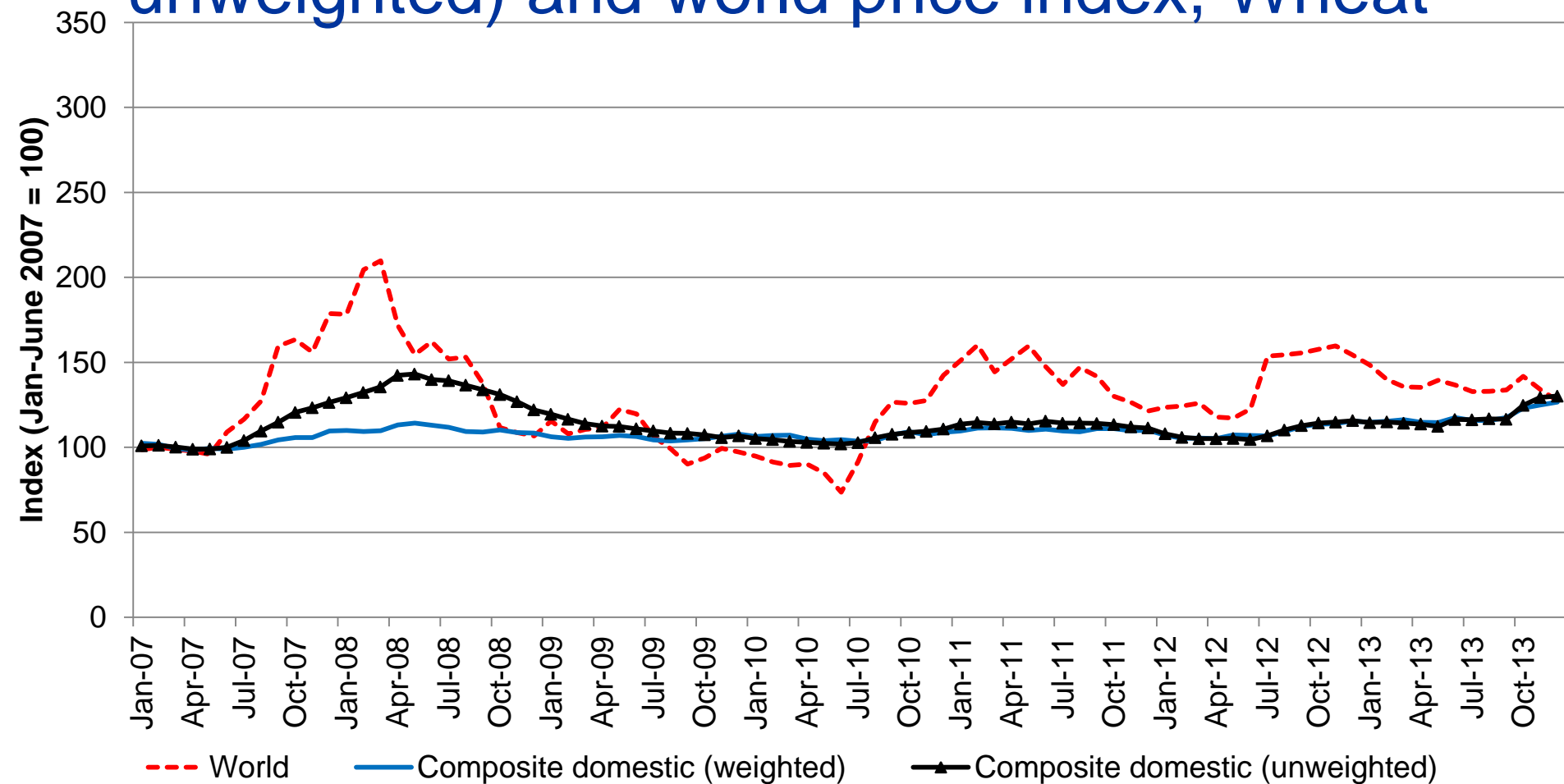


# Domestic price indices (weighted and unweighted) and world price index, maize



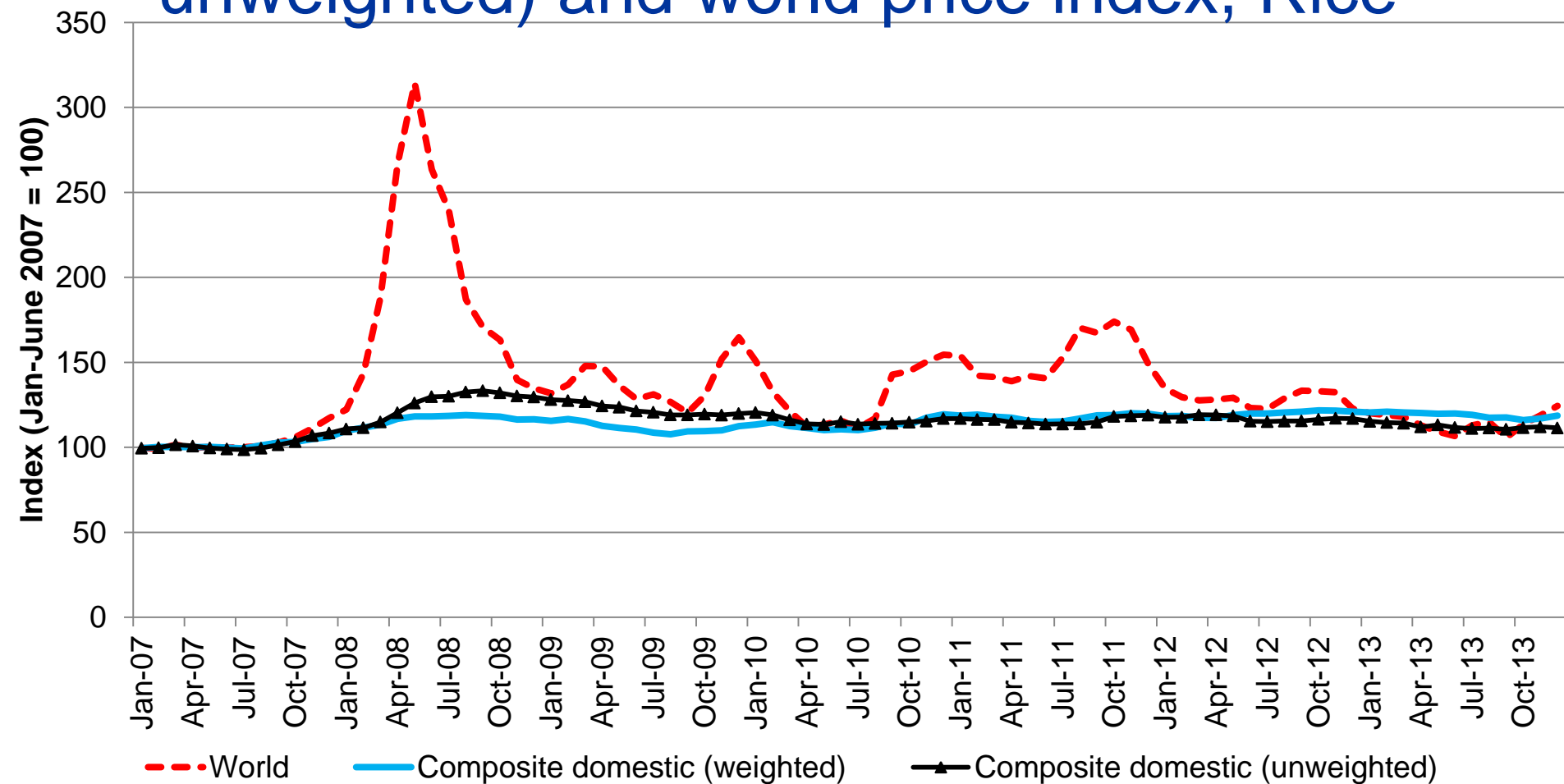


# Domestic price indices (weighted and unweighted) and world price index, Wheat





# Domestic price indices (weighted and unweighted) and world price index, Rice



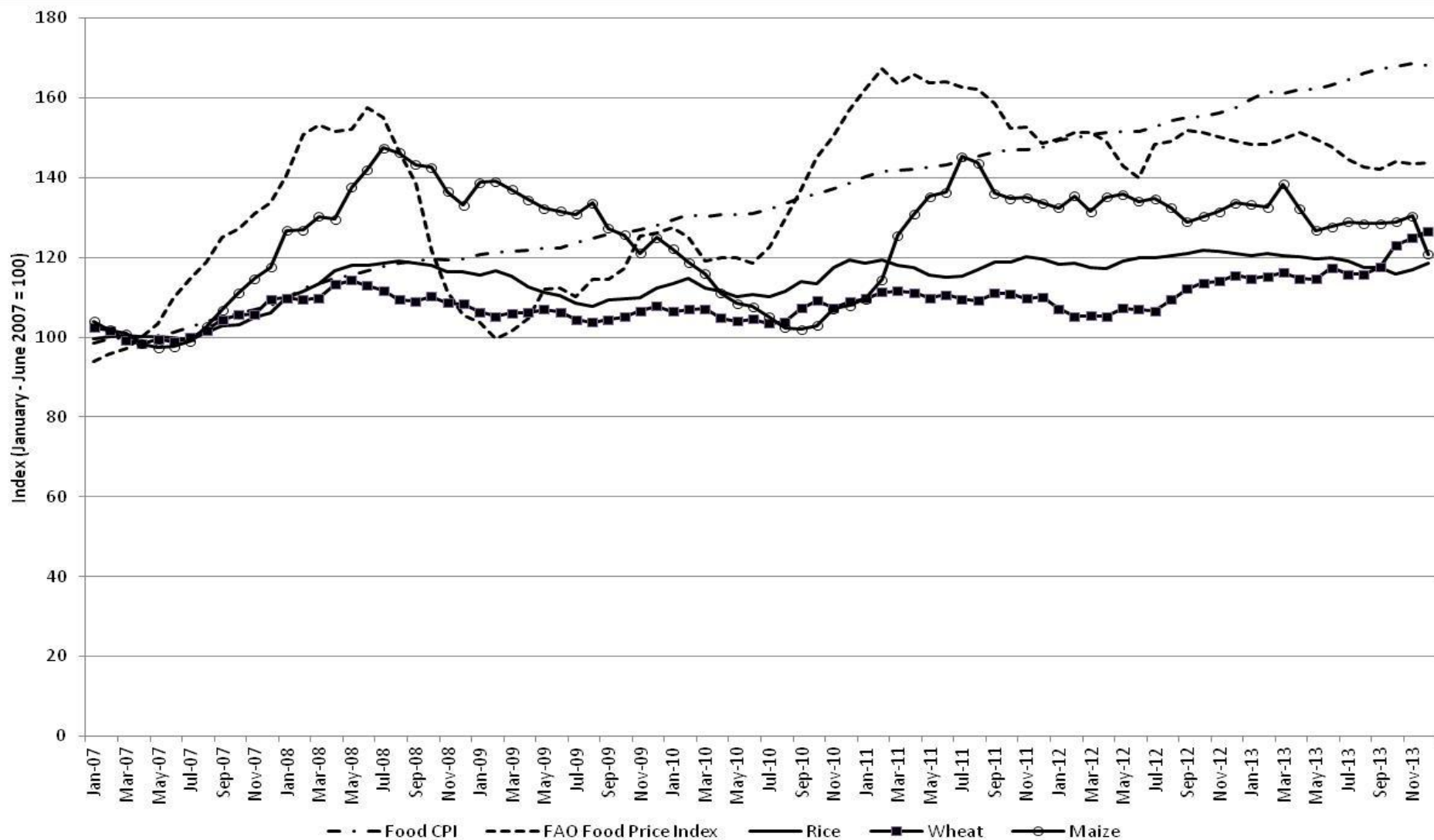




# Comparison with other food price indices



# Comparison of rice, wheat and maize domestic price indices with other food price indices

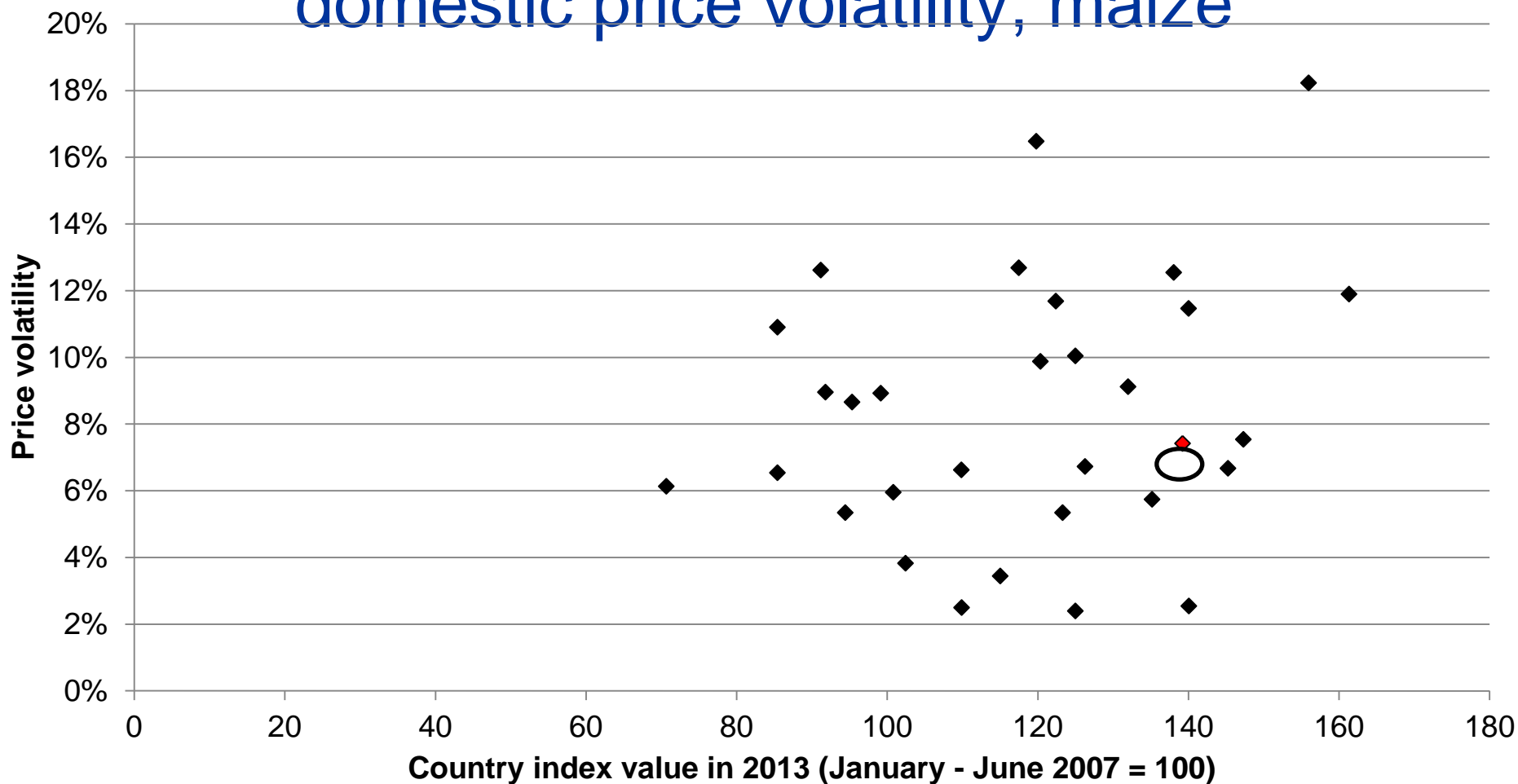




# Volatility

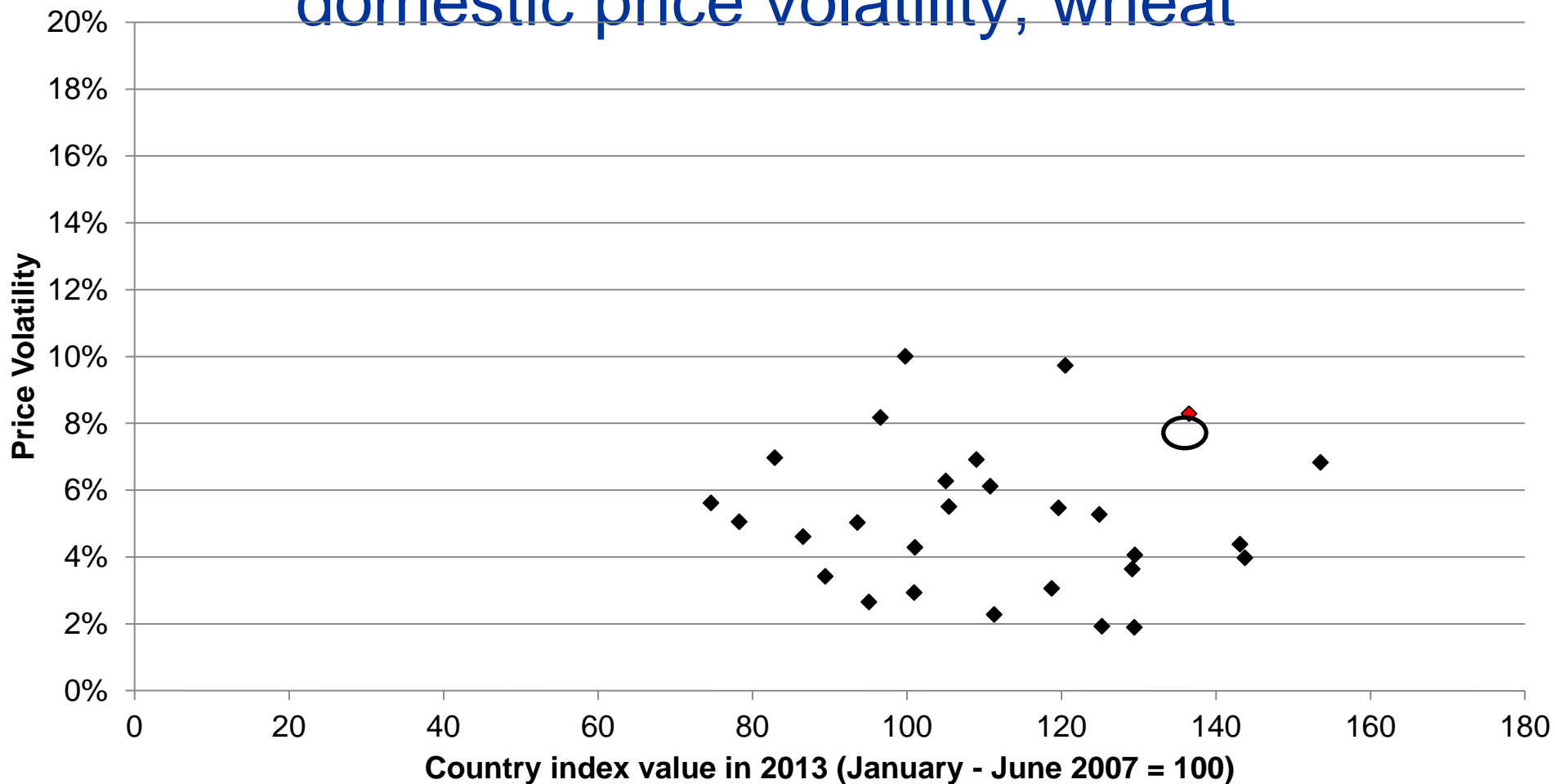


# National domestic price index in 2013 and domestic price volatility, maize



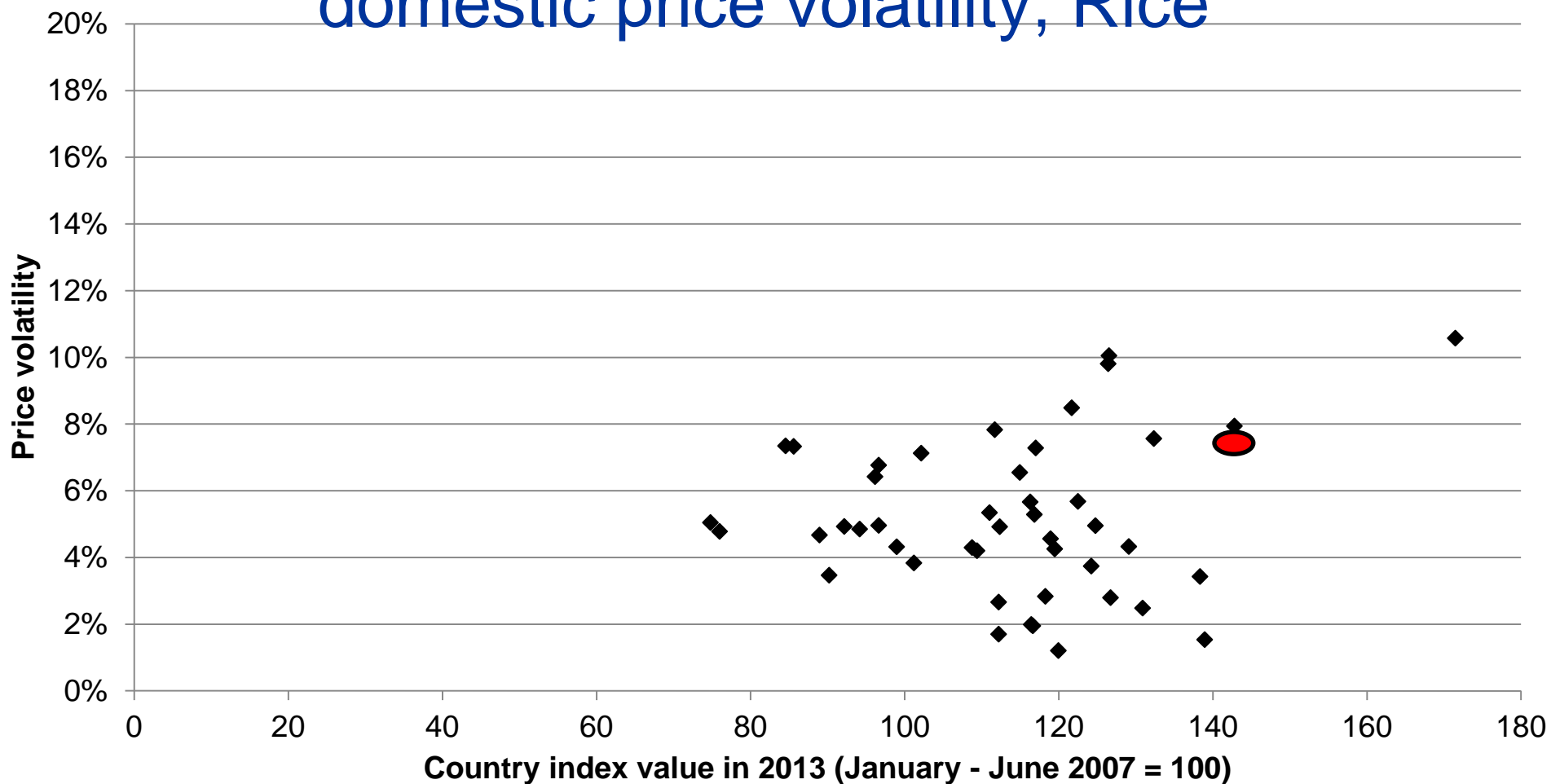


# National domestic price index in 2013 and domestic price volatility, wheat





# National domestic price index in 2013 and domestic price volatility, Rice





## Summary and Conclusions

First, indexes show that domestic staple food prices were higher in 2013 than they were in (the first half of) 2007

Second, they show that domestic prices have typically increased much less than world prices, and that domestic prices are less volatile than world prices

Third, they show that domestic prices broadly follow world price movements, but the movements in domestic prices are attenuated to an important extent

Fourth, they show that domestic price changes have varied widely across countries, and the increases are not necessarily due to increases in world market prices

For future work, collection of farm price data is a key priority – farm prices do not necessarily track the wholesale and retail prices that are analyzed in this paper