

**Seventh Multi-year Expert Meeting on  
Commodities and Development**

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**Speculation and volatile food prices: An overview of the  
debate and research**

By

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# Speculation and volatile food prices: An overview of the debate and research

UNCTAD Multi-year Expert Meeting on Commodities and Development

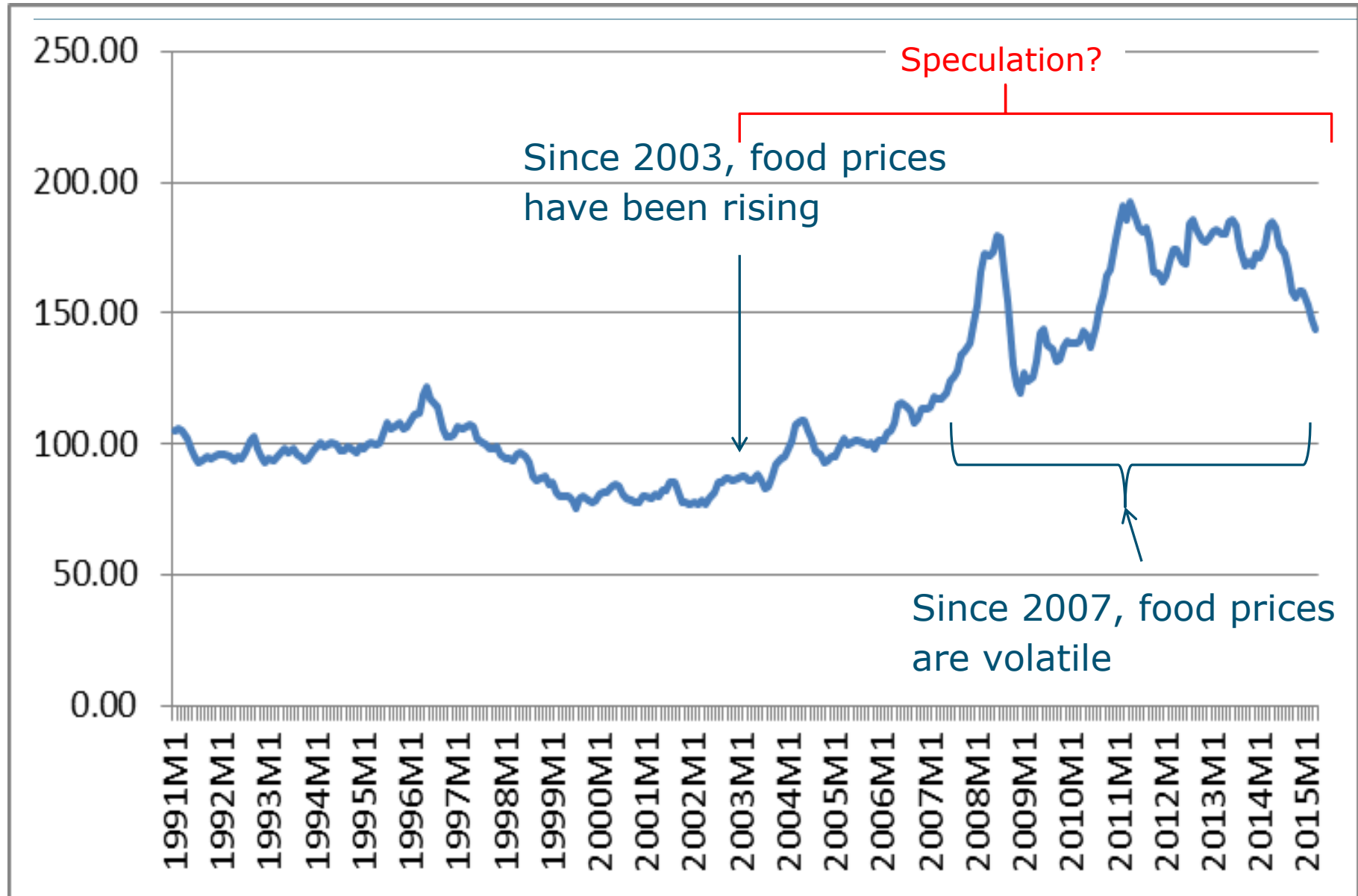
15 – 16 April 2015 Geneva

Gerdien Meijerink



# Overview of ongoing discussion

# Food price trends (index, 2005 = 100)



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# Debate since 2008

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- 2008: increased speculation (by indexfunds) since 2003 pushed up prices
- 2010: increased speculation (by indexfunds) increased volatility of prices

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# Claims made (but to be proven!)

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- More speculation by index funds on agricultural commodities futures markets



- Higher prices on futures markets

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# Claims made and to be proven

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- Speculation by index funds on agricultural commodities futures markets  
↓
- Higher prices on futures markets  
↓
- Higher food prices in developing countries

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# Claims made and to be proven

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- Speculation by index funds on agricultural commodities futures markets  
↓
- Higher prices on futures markets  
↓
- Higher food prices in developing countries  
↓
- Increase in hunger



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# Claims made and to be proven

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- Speculation by index funds on agricultural commodities futures markets



- Higher prices on futures markets



- Higher food prices in developing countries



- Increase in hunger



- Position limits needed

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# Claims made (and to be proven!)

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- Speculation (by index funds) on agricultural commodities futures markets



- Higher prices on futures markets
- Higher food prices in developing countries
- Increase in hunger
- Position limits needed

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Debate is not whether speculation leads to bubbles on agricultural commodities futures markets...

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**Etienne, Irwin & Garcia (2012) Bubbles in Food Commodity Markets: Four Decades of Evidence**

- “for the twelve agricultural commodities examined, all have experienced multiple bubbles between 1970 and 2011”
- “it is evident that bubbles existed long before CITs arrived and the process of commodity market financialization started”

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# ...but whether index funds have led to higher cash prices on markets

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- Overview studies all conclude this cannot be proven:
  - Irwin and Sanders (2011)
  - Meijerink & Shutes (2012)
  - Glauben, Prehn, Pies & Will (2013)

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# Scientific evidence does not support this claim (1)

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## **Irwin and Sanders (2011)**

### **Index Funds, Financialization, and Commodity Futures Markets**

- fail to find a direct empirical link between index trading and commodity futures price movements

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# Scientific evidence does not support this claim (2)

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## **Shutes & Meijerink (2012)**

### **Literature review of 41 studies**

“...cannot be established that speculation by index funds has structurally increased prices of agricultural commodities”:

- A few studies conclude that a large influx of speculative capital can lead to short term price fluctuations of a few hours to a few days.

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# Scientific evidence does not support this claim (3)

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## **Glauben, Prehn, Pies & Will (2013)**

### **Literature review of 35 studies (10 scientific articles and 25 general) published between 2010 and 2012**

“Financial speculation is not the cause of high food prices”:

- Vast majority of research papers did not confirm the concerns about the impacts of speculation on agricultural commodities markets
- Financial speculation may even contribute to making the agricultural markets function better

# Claims made and to be proven

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- Speculation by index funds on agricultural commodities futures markets
- Higher prices on futures markets  
↓
- Higher food prices in developing countries
- Increase in hunger
- Position limits needed





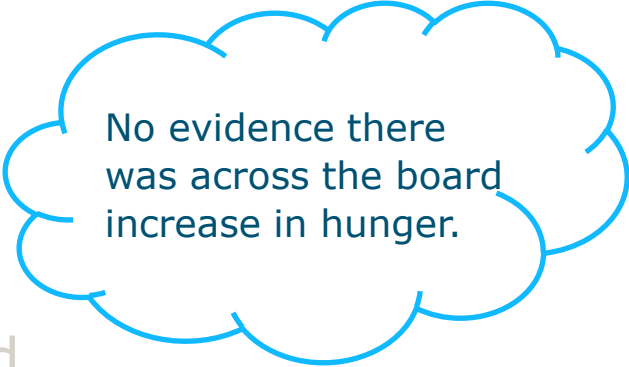
# Difference between global and local prices



# Claims made and to be proven

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- Speculation by index funds on agricultural commodities futures markets
- Higher prices on futures markets
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↓
- Increase in hunger
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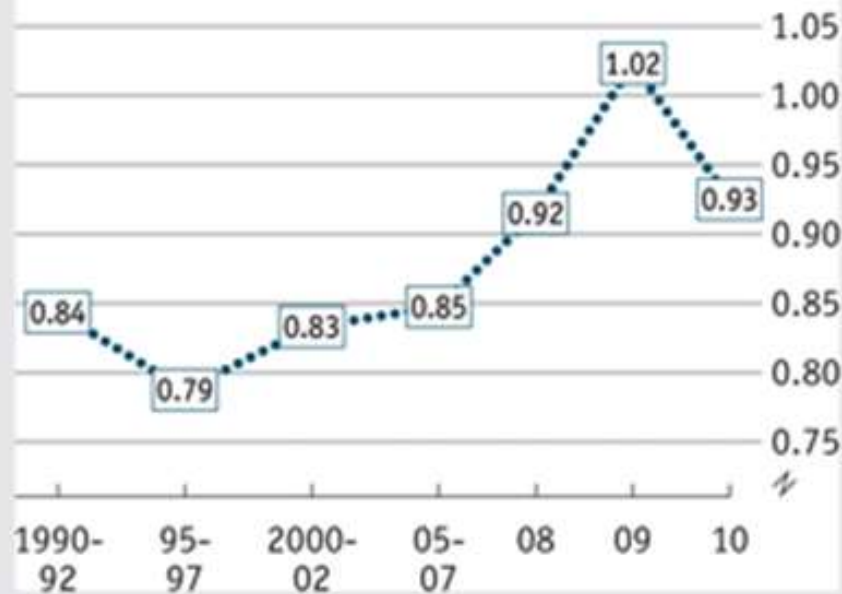


No evidence there was across the board increase in hunger.

# FAO modified figures after improving methodology

Estimates of undernourished people in the world, bn

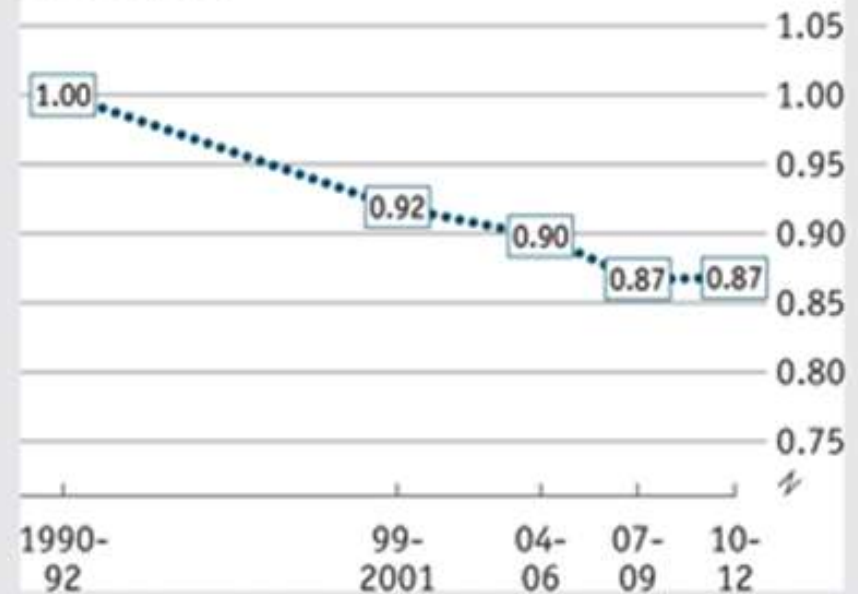
2010 report



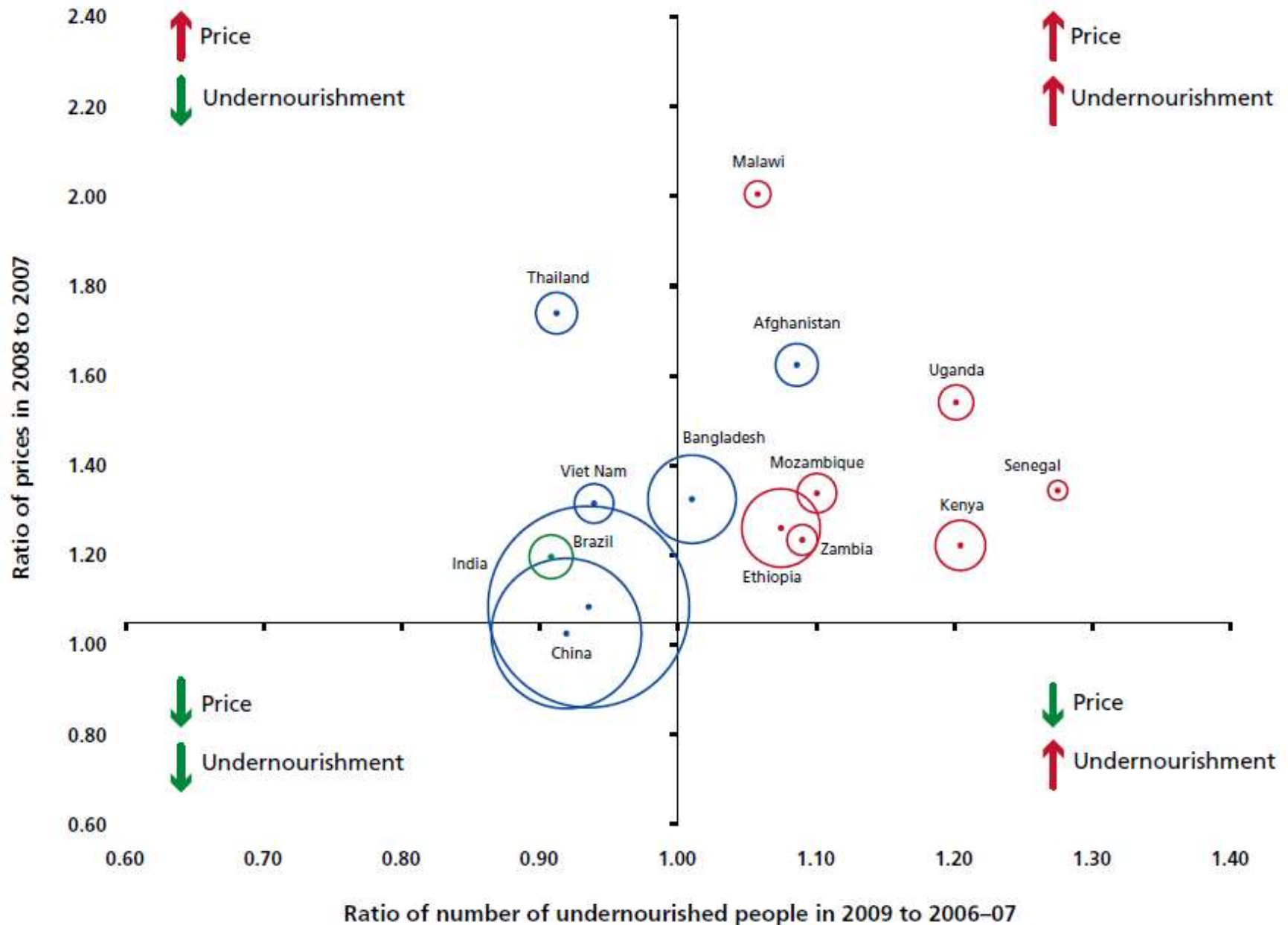
Source: FAO

*Corrected version*

2012 report




# Food prices and hunger (FAO, 2011)



# Claims made and to be proven

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- Speculation by index funds on agricultural commodities futures markets
- Higher prices on futures markets
- Higher food prices in developing countries
- Increase in hunger  
↓
- Position limits needed



US Court Ruling  
2012: "first show that  
position limits are  
necessary!"

# Other cases of speculation

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# When does speculation lead to higher prices?

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- Speculation impacts on the real (cash) commodity markets:

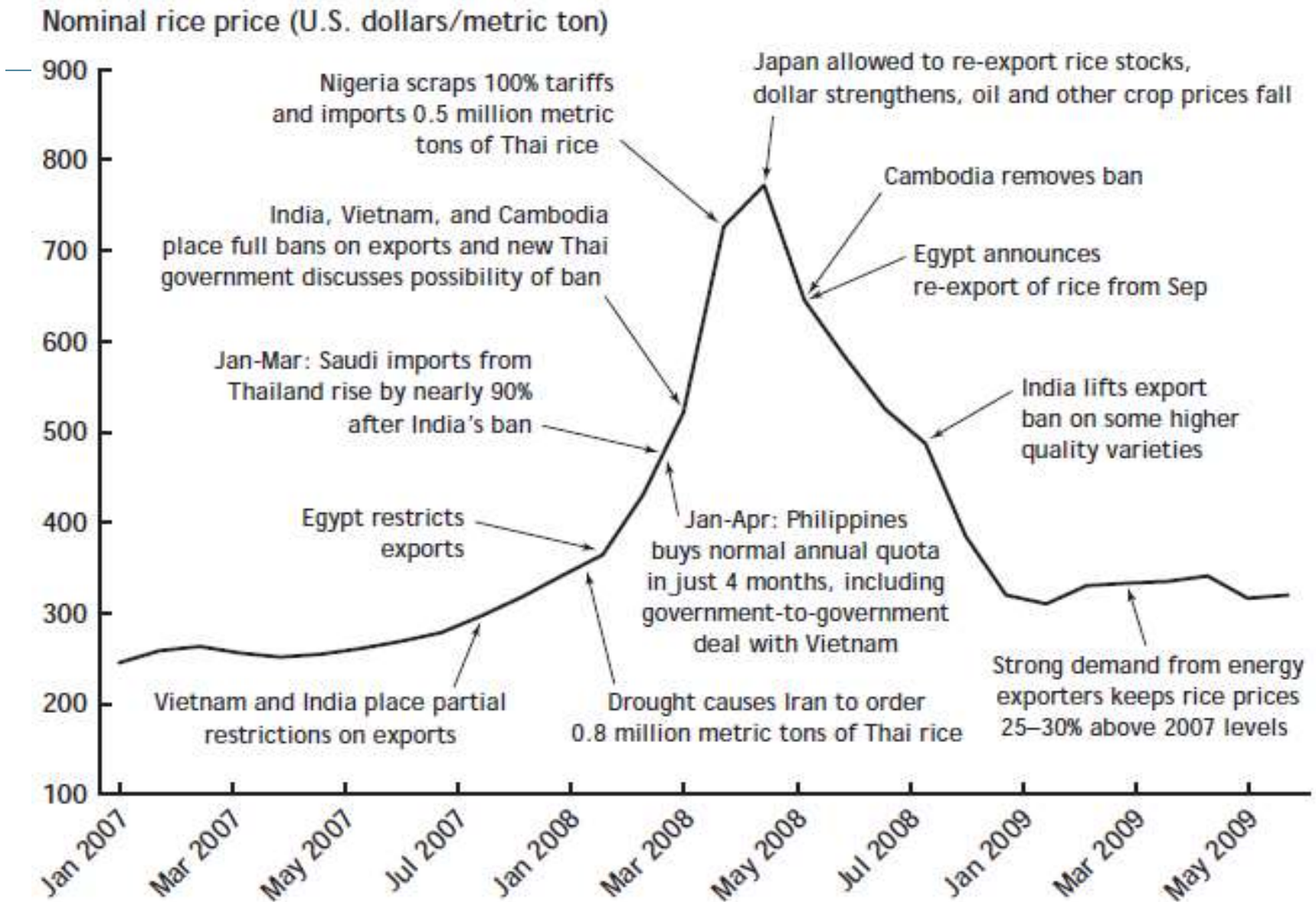
## 1. If investors buy up large quantities of an agricultural commodity and store these to influence price

- Amajaro cocoa (2010: taking delivery of 7% of the world's physical supply)
- Banks investing in storage of metals (Goldman Sachs)

## 2. Herd behaviour

- Rice market: speculation by governments and traders

# Speculation by governments in rice (Headey, 2008)





# New evidence: macro-economic factors & uncertainty

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# Macro-economic factors

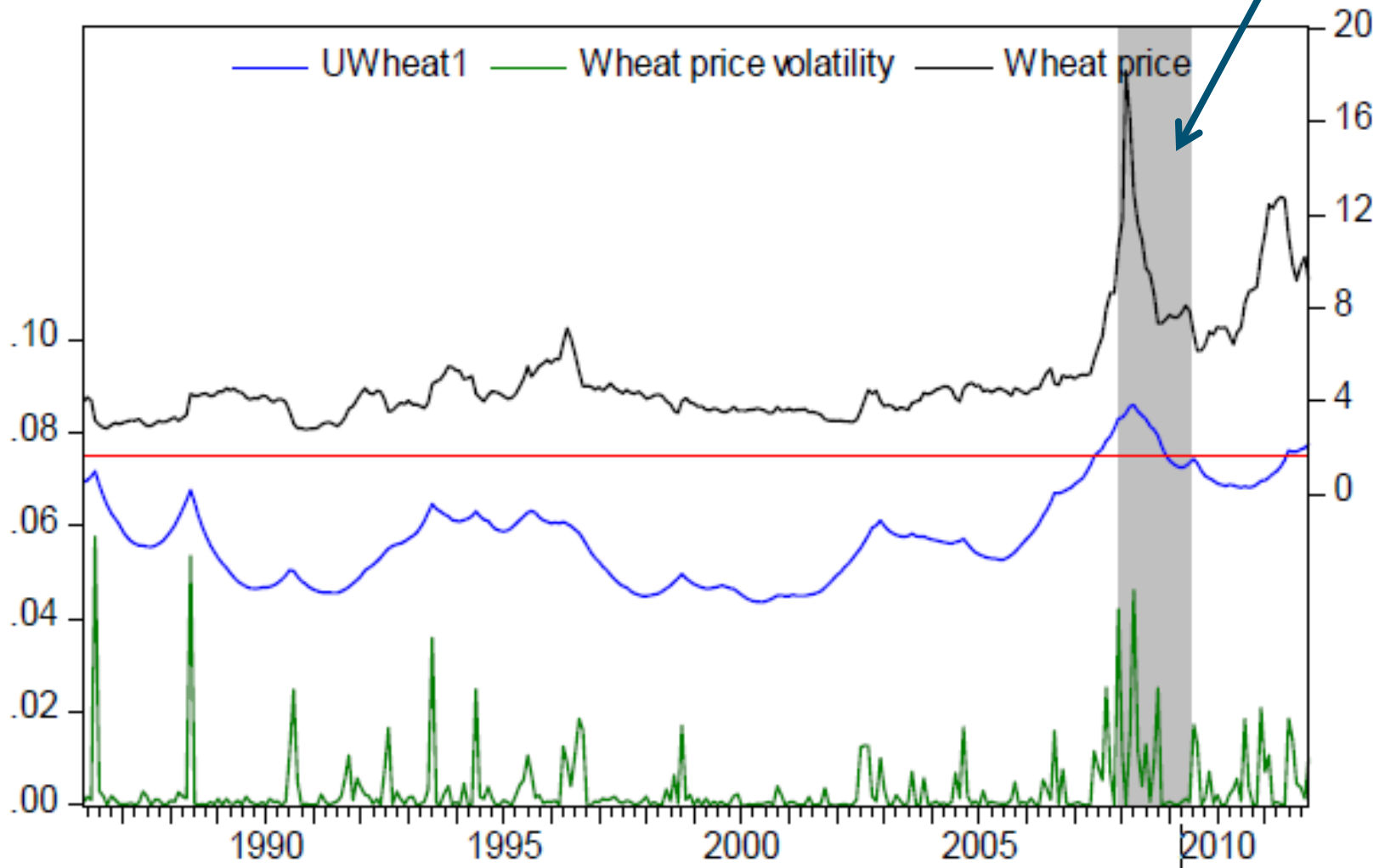
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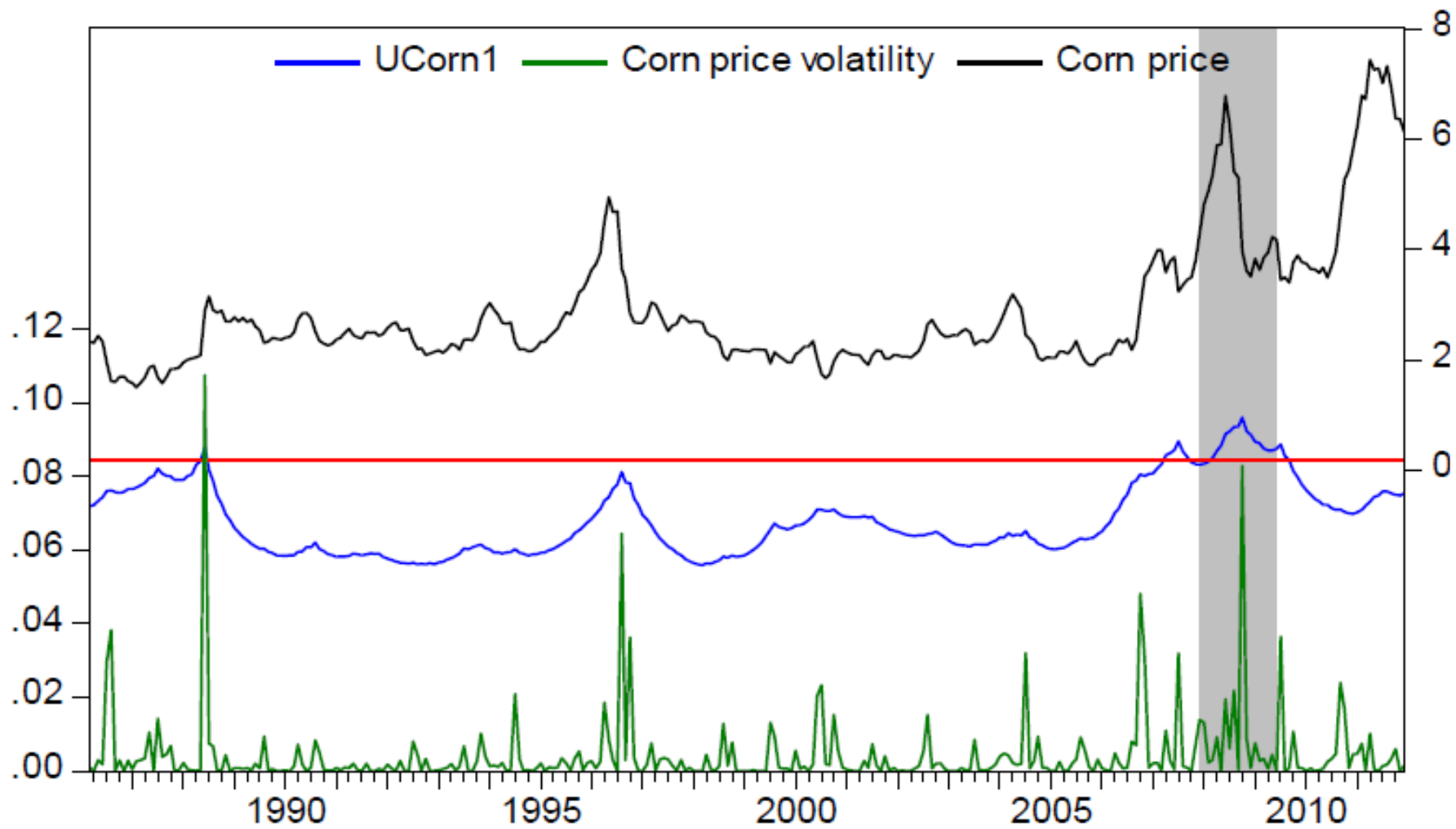
Special issue of Journal of International Money and Finance (2014) "*Understanding international commodity price fluctuations*"

- Commodity prices are driven by multiple forces and characterized by very long-term trends and shorter-run cycles of varying durations
- Importance of understanding structural breaks

# Increased uncertainty (Joëts et al., 2014)

- Period of high uncertainty (proxy indicator of macro-economic variables)





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# Source of uncertainty

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- **Financial crisis** an important source of macroeconomic uncertainty (Joëts et al., 2014)
- World has become more **integrated**: shocks are felt all over the world
- Globalization leads to **informational frictions** regarding the supply, demand, and inventory of commodities. Aggregating information is challenging (Cheng & Xiong 2013)

