

World Cocoa Conference 2014

Panel session “Sustainable Industry Chain: Factors Affecting Farmers’ Incomes”

Thursday 12 June 2014

# Improving market efficiency and transparency

**Christopher L. Gilbert**  
University of Trento, Italy

email: [christopher.gilbert@unitn.it](mailto:christopher.gilbert@unitn.it)

web: <https://sites.google.com/site/christopherlesliegilbert/home>



## Session objective

*The cocoa price is a key factor in determining the income of farmers.*

*The panel will review the factors that distort prices and discuss opportunities to improve the functioning of the supply chain.*

*The panel is expected to suggest recommendations to improve market efficiency and transparency, thus ensuring a more equitable price and a living wage for cocoa farmers.*



# What determines the price the farmer gets for his cocoa?

Farmers are residual claimants on the cocoa prices – they hold the equity of the value chain.



- Farmgate prices are determined by yields, the world price, taxes and intermediation costs.
- The cocoa value chain will be sustainable if cocoa production is profitable for all actors in the chain.

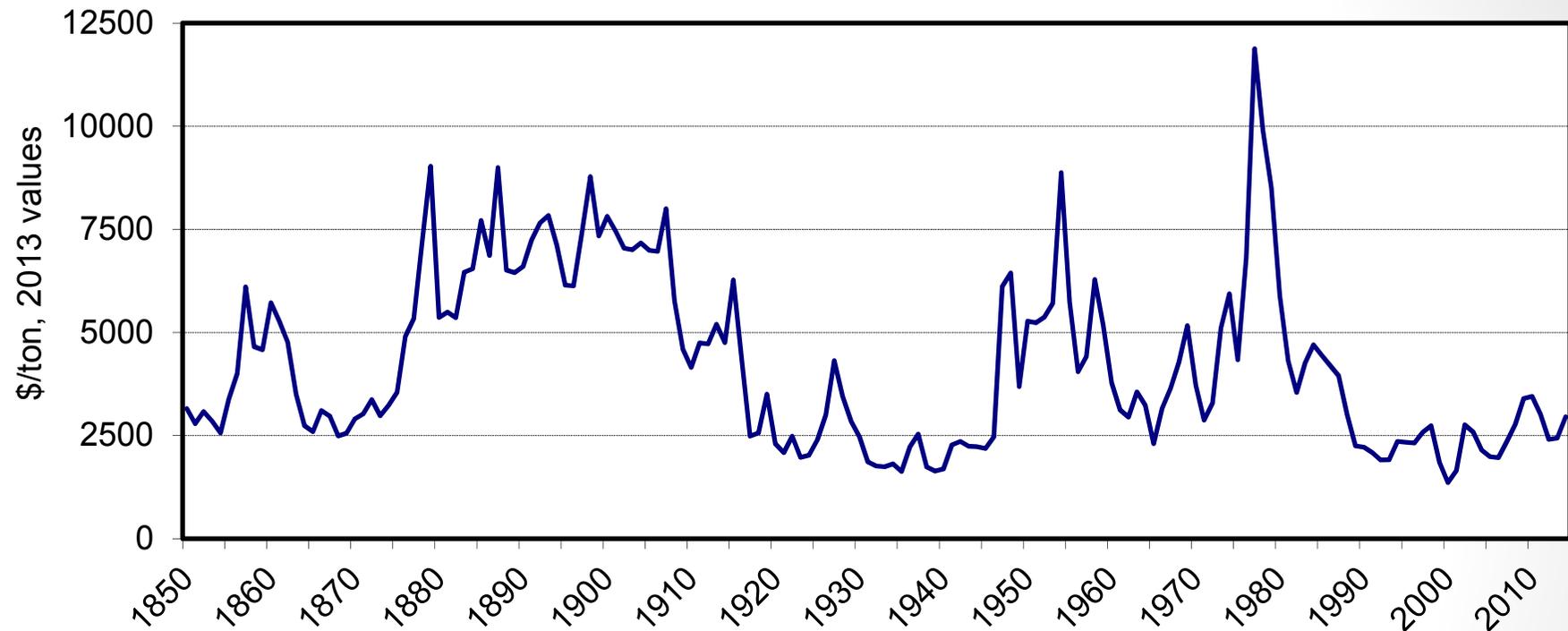


# Sustainability



- Cocoa is a smallholder crop and is generally extensive. Farmers are diversified in terms of crops but not always in terms of cash income.
- We know how to raise cocoa yields. Throughout Africa and in all crops, there is an enormous gap between best practice and average yields. Sustainability initiatives should focus on narrowing this gap.
- If cocoa is to evolve toward a modern agrobusiness model this will be through a strengthening of farmer organizations and cooperatives.
- The main impact of the sustainability initiatives is likely to come through increased professionalization - of both farmers and farmer organizations.

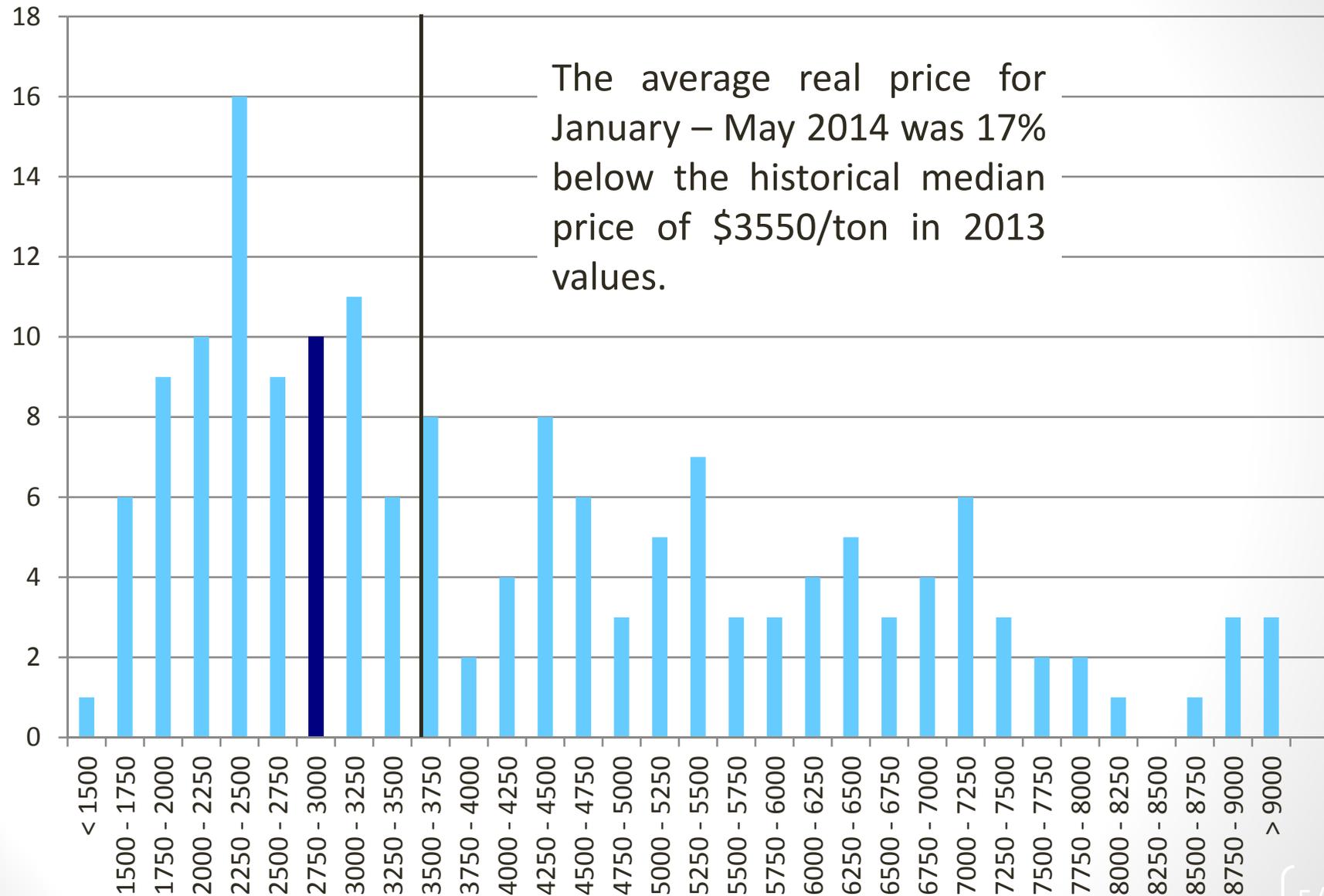
## Real cocoa prices, 1850-2014: no trend but alternating periods of prolonged high and low prices



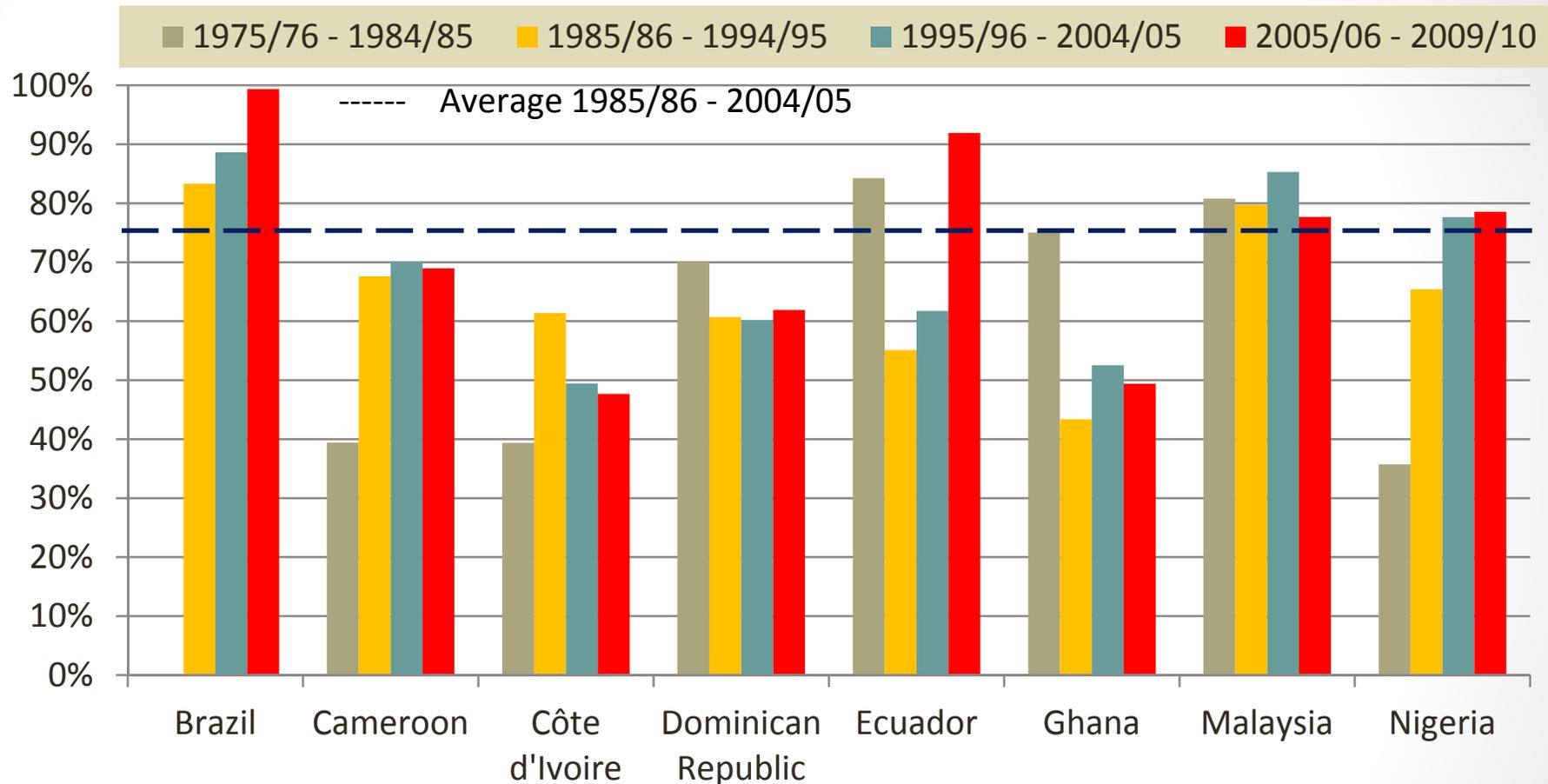
Source: 1850-96: cif Hamburg; 1900-1940: League of Nations; 1940-1959: FAO; 1960-2013: IMF. Note: deflation is by the US Producer Price Index (all items, 2005=100) rebased at 2013.

- Currently, prices are low but not abnormally or disastrously low.
- If fears in relation to sustainability are realized and production fails to keep pace with production, the worst that will happen is that we will return to the price levels of the 1950's and 1960's.

# Average real cocoa prices



# Producer share of the world price from 1975-76



Source: Producer prices: Varangis and Schreiber (2001) and ICCO; exchange rates: IMF and World Bank. Note: Nigerian prices are converted at the parallel exchange rate.

- Over the two decades, farmgate prices have averaged around 2/3 of the world price.

# Taxation

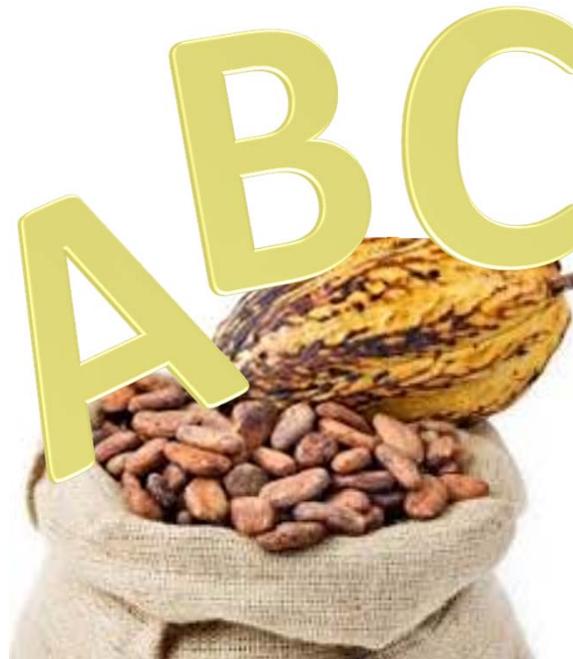


*Peter Bauer*

- The farmer's share of the world price has been consistently high in Brazil and Malaysia and lower for Côte d'Ivoire and Ghana.
- Liberalization of West Africa marketing systems was associated with higher producer shares in Nigeria, Cameroon and, initially, Côte d'Ivoire. Is this the result of greater intermediation efficiency or to lower taxation?
- Tax revenues can be used to improve the efficiency of the value chain, for example through extension and provision of high quality stock. They can also be used for the government's general revenue purposes.
- Governments have the right to tax. Nevertheless, the simplest way to raise farm incomes and hence ensure sustainability in Côte d'Ivoire and Ghana would be to copy Cameroon and Nigeria in reducing taxes and other levies.

## Monopoly power

There have been claims that cocoa processors have exerted monopoly-monopsony power with the result that producers' shares have been squeezed.



I have never seen any evidence for this view.

# Monopoly power

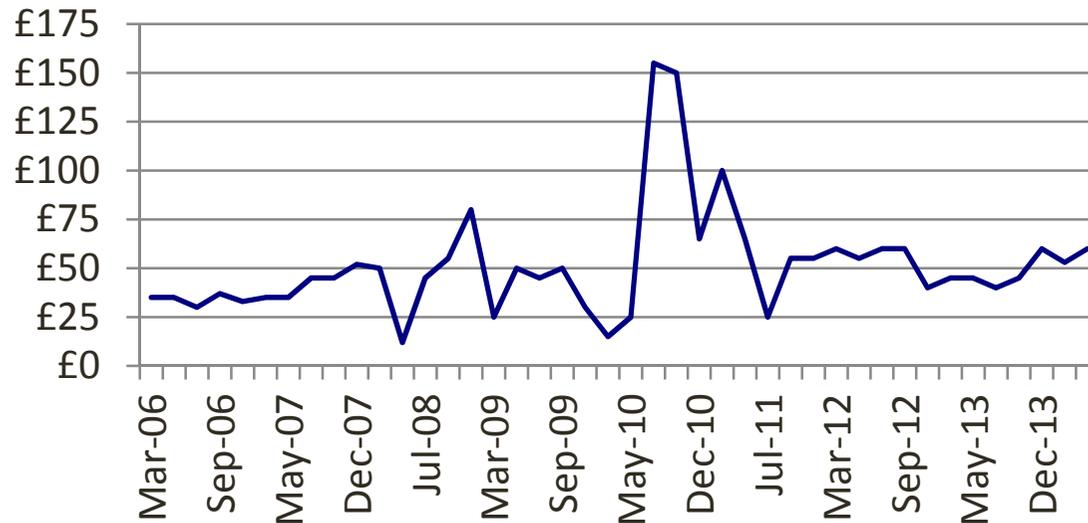
- The conversion industry is highly concentrated (dominated by ADM, Barry Callebaut, Cargill and Blommer).
- These big converters do not manufacture much chocolate – they see themselves primarily as trading companies.
- Cocoa prices are set on the terminal markets, not by the converters.
- There is free entry into cocoa conversion (Olam is now entering) and the dominant position of the major converters appears to reflect economies of scale, scope and high operating efficiency.
- The chocolate industry is much less concentrated although there has recently been some increase.
- Most chocolate producers buy liquor and powder from an independent converter. A few purchase beans directly and do the conversion themselves.

# Are the cocoa futures markets efficient and transparent?

- Nobel laureate Eugene Fama defines an efficient futures market as a market in which prices fully incorporate market-relevant information.
- A broader definition asks how closely futures prices relate to transactions prices.
- For delivered contracts, such as NYSE-LIFFE and ICE cocoa, the futures price should converge on the spot price at contract expiry.
- Good convergence relies on an efficient delivery mechanism.
- There is evidence of a significant convergence problem in the NYSE-LIFFE cocoa contract during 2010 and the first part of 2011.

# NYSE-LIFFE cocoa contract

## Côte d'Ivoire expiry differential against NYSE-LIFFE, 2006-14



The futures price failed to accurately represent cash market values in the second half of 2010 to the probable detriment of producers.

This was not an “orderly market”.

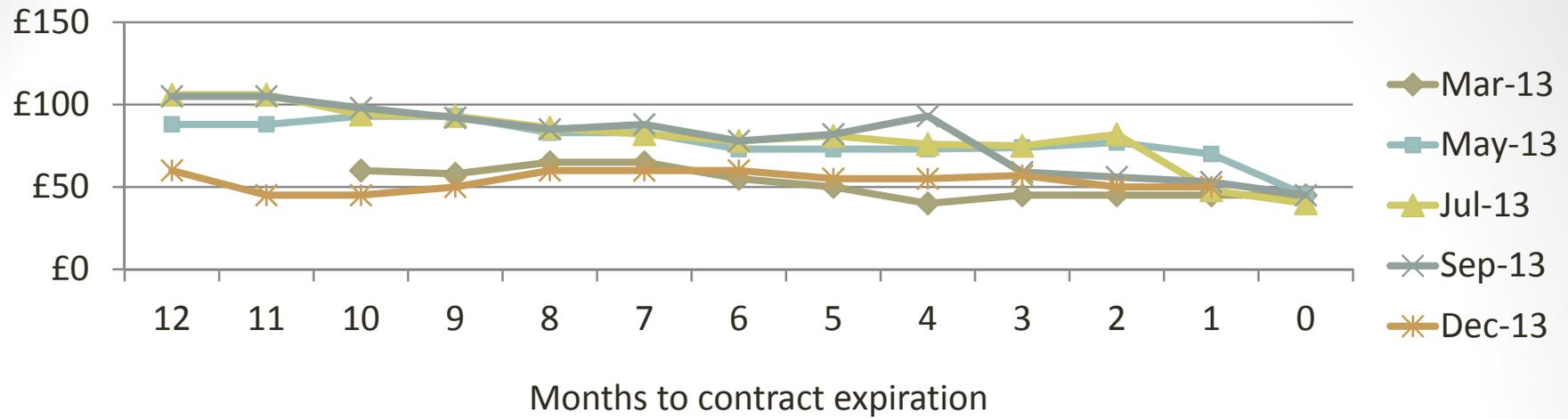
“The physical delivery of almost all of London's graded cocoa stocks on the expiry of the July futures contract last week - the equivalent of almost 7 percent of world production”.

There have been suggestions that cocoa went to just one or two parties abusing a dominant long position”.

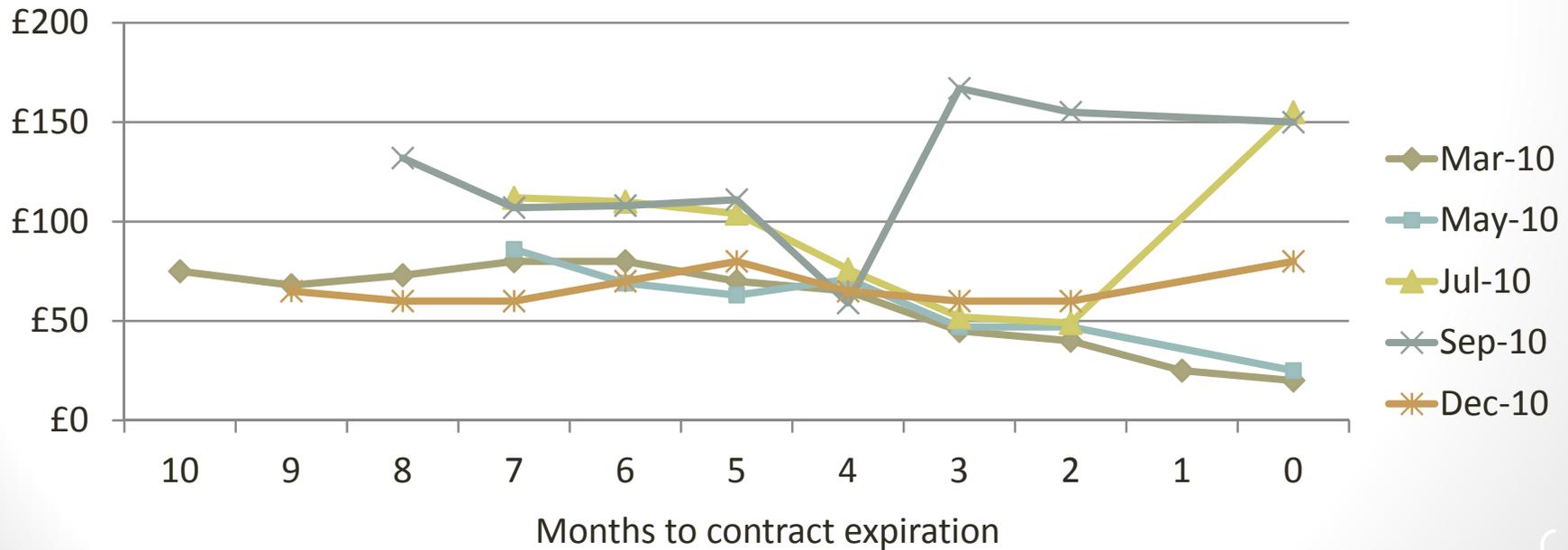
According to LIFFE “There is no evidence of abusive trading behaviour on the July cocoa contract”.

*Commodities Now*, 22 July 2010.

### LIFFE Cocoa Convergence 2013



### LIFFE Cocoa (Lack of) Convergence 2010



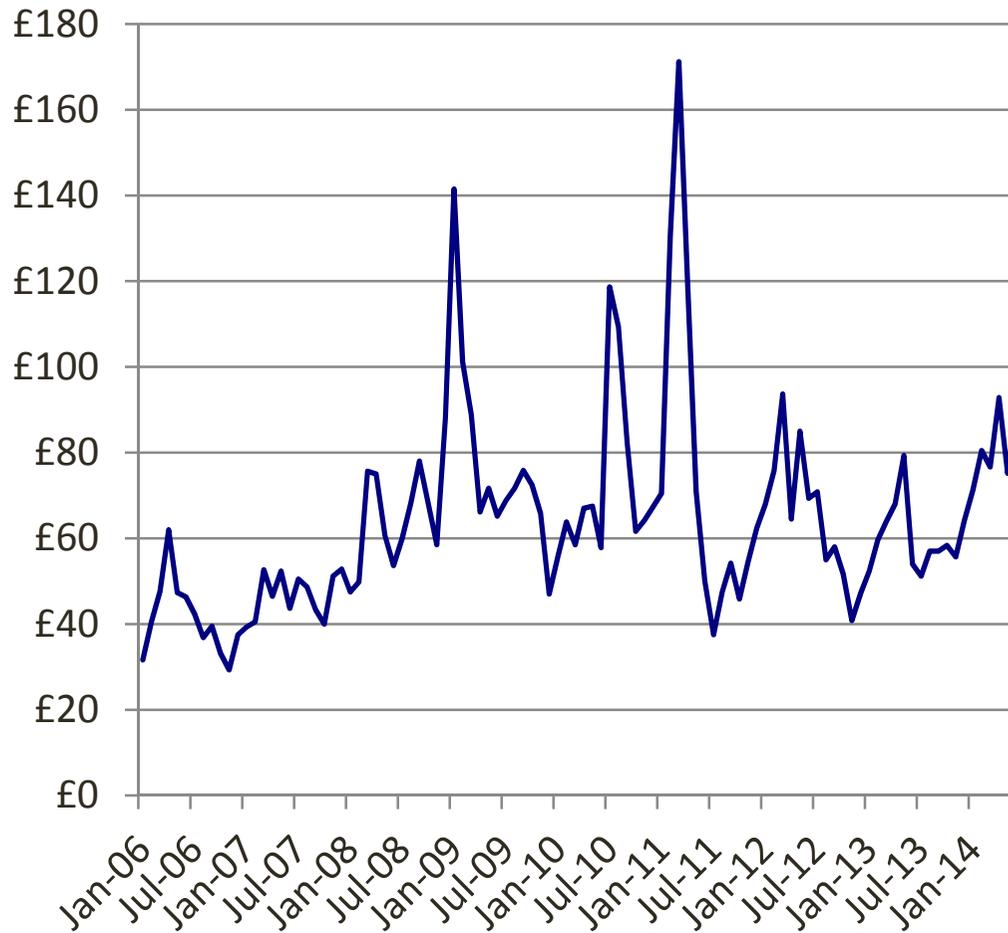
# Monopoly power in warehousing

**Exchange-registered warehouses have a monopoly in the supply of cocoa from warehouse stocks.**



- There are fears that the alleged malpractices in LME-registered warehouses (aluminium and zinc) may have spread to soft commodities (robusta coffee, cocoa).
- The major concern relates to slow load-out rates resulting in queues for delivery and higher premia.
- In 2013, NYSE-LIFFE took action to prevent potential abuse of market power in warehousing:
  - *From December 2013: 250-500 tonnes per day minimum load out rule depending on warehouses holdings.*
  - *Rental can no longer be charged on stocks once release has been requested.*

# Côte d'Ivoire differential against NYSE-LIFFE



Differential has increased (£70.55 from April 2009 – June 2014 against £57.91 over January 2006 – March 2009) but is not statistically significant;

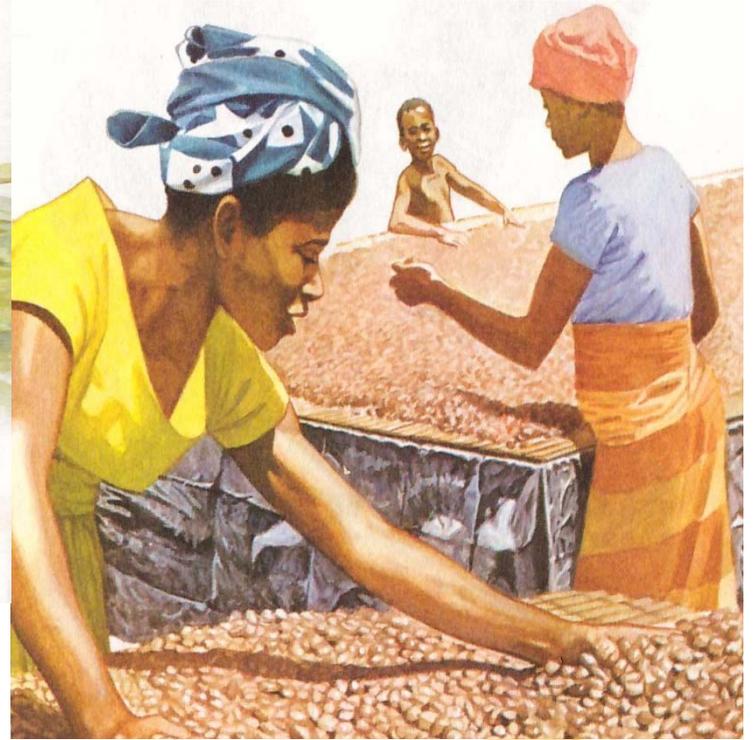
The premium is more volatile, potentially impairing hedge quality, but again the difference is not significant.

The market impact of any abuse in cocoa appears to have been relatively minor and difficult to demonstrate on a conclusive basis.

# Brief conclusions and questions

- In real terms, current cocoa prices are towards the low end of historical experience but are not exceptionally low.
- Producers should beware of forming expectations based on the high prices in the first four postwar decades.
- Producer prices have averaged around two thirds of exchange prices over the most recent period. Except in Nigeria, African farmers obtain less than this. The simplest way to raise farm incomes in Côte d'Ivoire and Ghana would be to copy Cameroon and Nigeria in reducing taxes and other levies.
- I have not seen any evidence of abuse of market power by consumers of processors.
- The London cocoa futures market has seen convergence problems. There has also been concern over the potential abuse of monopoly power by the operators of exchange-registered warehouses.





**Thank you for your attention**

