



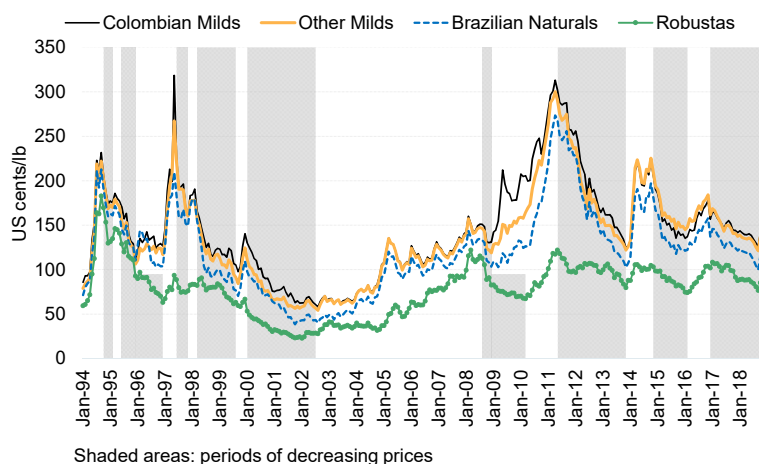
**INTERNATIONAL
COFFEE
ORGANIZATION**

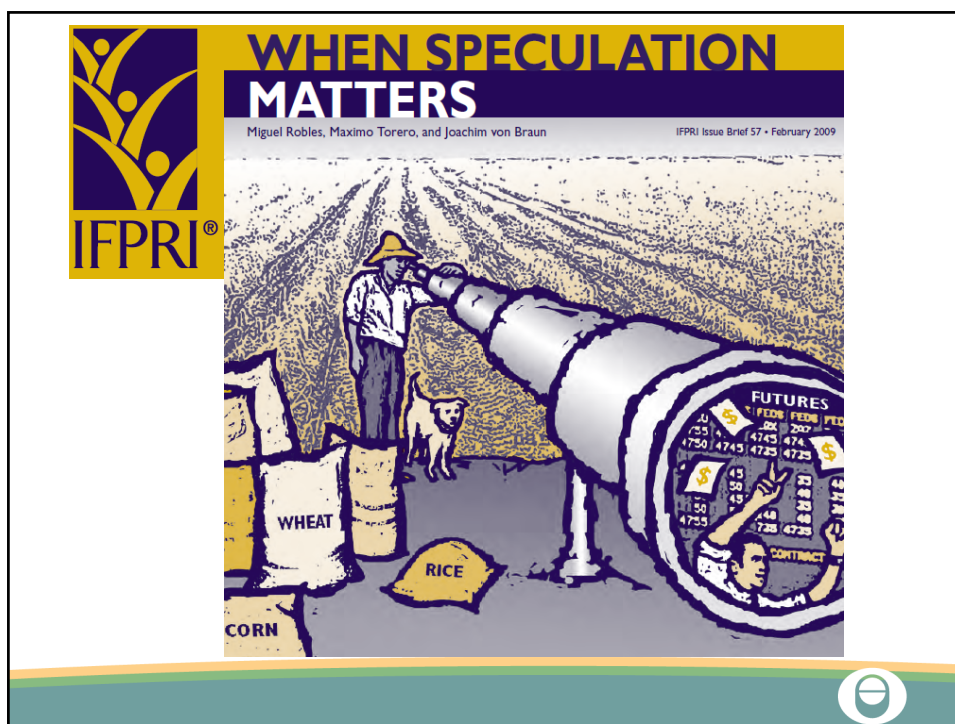
Futures markets: role of non-commercial traders

ICC-124-5

124th Session - International Coffee Council
Nairobi, Kenya

CYCLES OF HIGH AND LOW COFFEE PRICES, 1994 – 2018



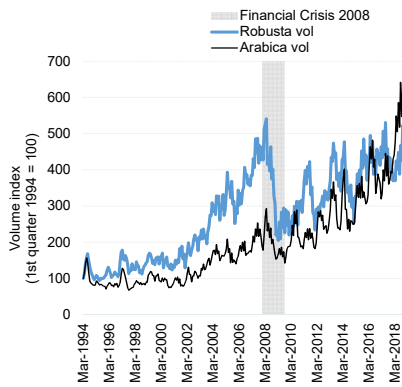


SIX MEASURES OF SPECULATION

- Monthly **volume** of futures contracts
- Monthly **open interest** in futures contracts
- Ratio of volume to open interest
- Ratio of **long positions** held by **non-commercial** traders to total reportable **long** positions
- Ratio of **short positions** held by **non-commercial** traders to total reportable **short** positions
- Index traders' net positions (= long *minus* short)
 - Arabica futures market only

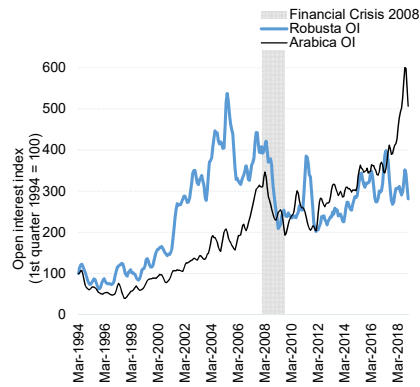
MEASURES OF SPECULATION

1. Volume



Measure of liquidity in the market – attracts investors
Weak measure of speculation

2. Open interest

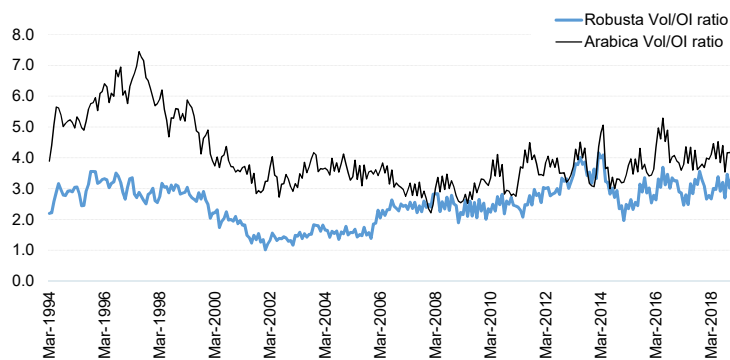


Indicator of trading interest, confidence in the market – attracts medium-long term investors



MEASURES OF SPECULATION

3. Ratio Volume / Open interest

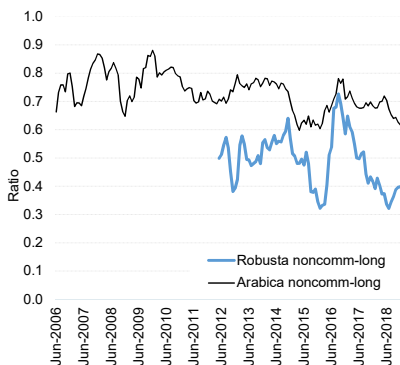


Measure of **short-term speculation**: high volumes with low open interest = higher ratio

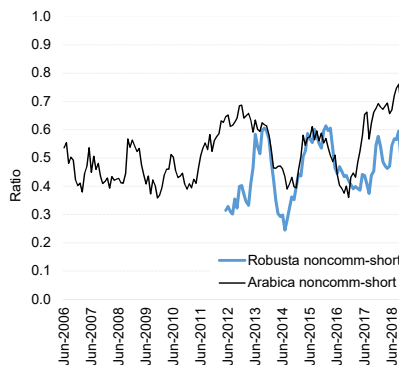


MEASURES OF SPECULATION: NON-COMMERCIAL POSITIONS TO TOTAL REPORTABLE POSITIONS

4. Long



5. Short

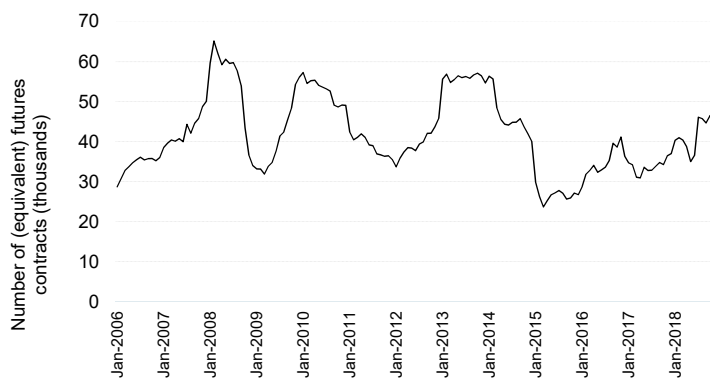


Commercial traders -use futures contracts for hedging purposes (CFTC)
 Non-commercial positions (short or long) mainly represent speculative activity in pursuit of financial profits



MEASURES OF SPECULATION

6. Index traders' net positions



Measure of **speculation**: These traders hold positions in a mix of commodity markets:
 Assumption: purposes other than hedging against commodity-specific risks (Robles et al., 2009).





GRANGER CAUSALITY TESTS

- Time series analysis
- Two statistical models:
 - M1: Relationship between the past behaviour of prices with their current level (**forecasting**)

$$Price_t = f(Price_{t-1}, \dots, Price_{t-n})$$

- M2: Incorporates past speculation activity in M1 to assess its **predictive power** on present spot prices

$$Price_t = f(Price_{t-1}, \dots, Price_{t-n}, \\ Speculation_{t-1}, \dots, Speculation_{t-n})$$

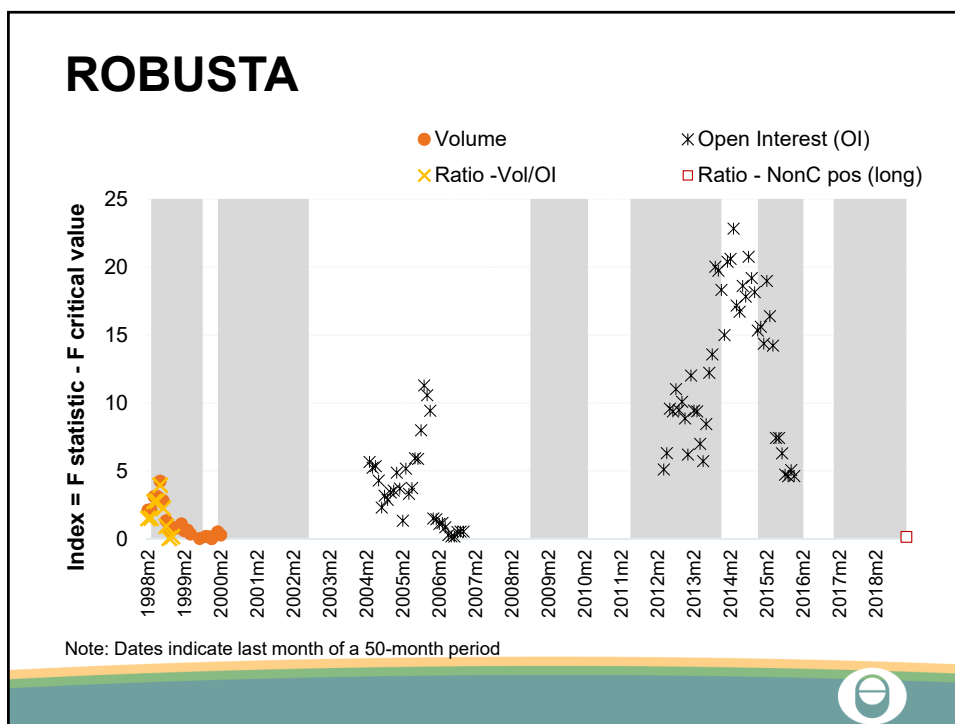
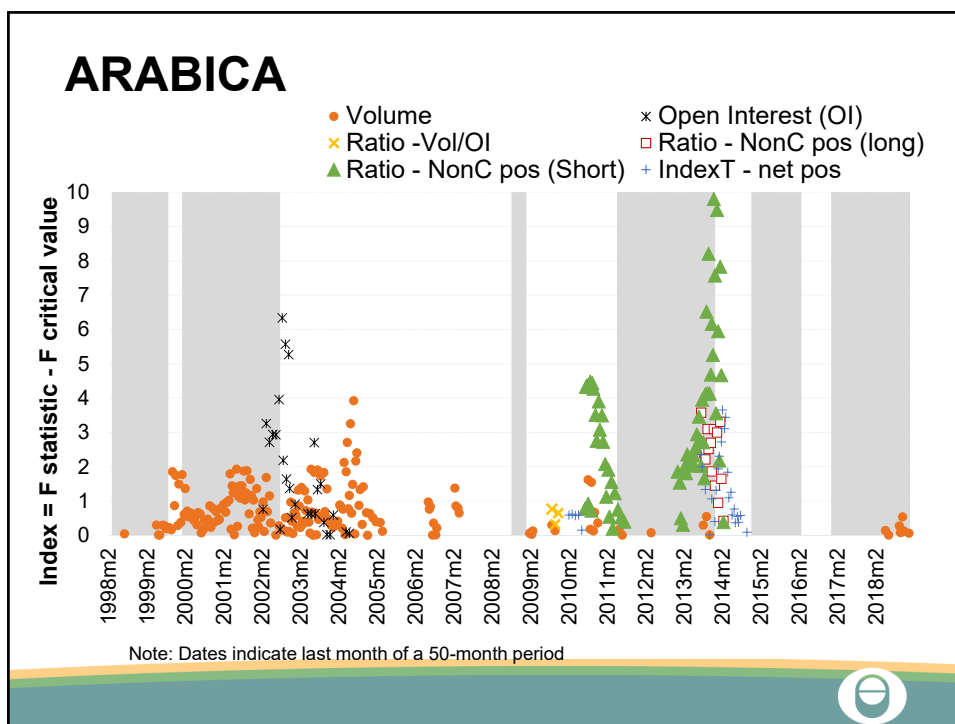


GRANGER CAUSALITY TESTS

- Estimation of M1 and M2 = *Fstatistic*
- Test:
$$Test = Fstatistic - Fcritical\ value$$
at a 95% statistical confidence level
- If the difference is at least zero ($\Rightarrow 0$):
 - there is evidence of influence or predictive power of speculation on coffee prices
- Values greater than zero only indicate a higher statistical confidence level, ex: 99%
 - No strong influence or power of speculation



Results



CONCLUSIONS

- Speculative activity has predictive power over spot market prices in specific **short time** periods.
- No significant evidence of speculative activity affecting spot market prices during the recent downturn of the coffee market since 2016
- Speculation can **exacerbate** price trends in the **short-term**, but fundamentals (demand trends and supply shocks) prevail in the **long-term**



CONCLUSIONS - REGULATION

- Regulatory interventions can help to manage the impact of speculation:
 - **Limiting** the positions held by **non-commercial** traders
 - Dodd-Frank Wall Street Reform and Consumer Protection Act in the US
 - Increasing **costs** of **non-hedging** participation in the market
 - Imposing **capital requirements** for each transaction



