

**Global Commodities Forum**  
Palais des Nations, Geneva 22 - 23 March 2010

**A Case for Innovative Commodity  
Stabilisation Mechanisms**

by

**Ms. Machiko Nissanke**  
**Department of Economics**  
**School of Oriental and African Studies**  
**University of London, UK**

*"The views expressed are those of the author and do not necessarily reflect the views of UNCTAD"*

# *A case for Innovative Commodity Stabilisation Mechanisms*

---

**Machiko Nissanke**

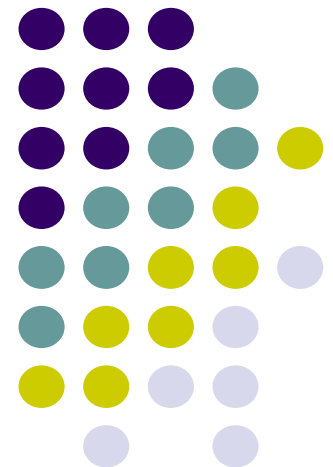
Department of Economics

School of Oriental and African Studies

University of London

Presented: March 22, 2010

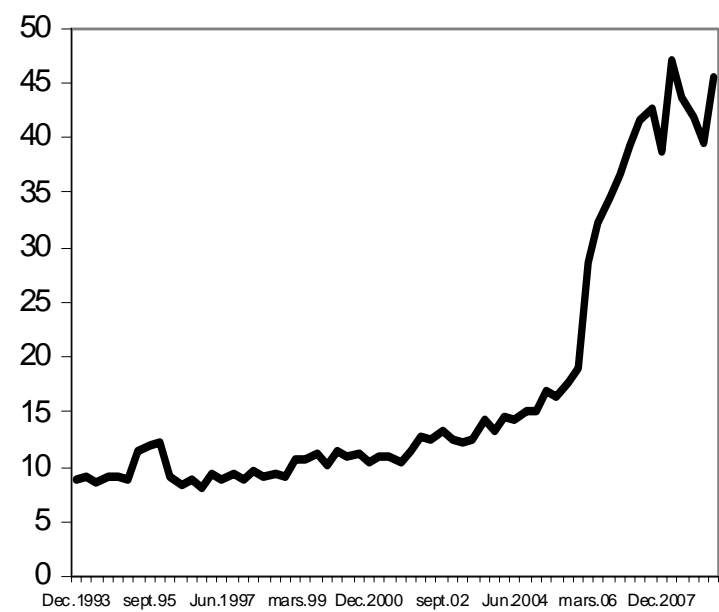
The Global Commodity Forum, UNCTAD





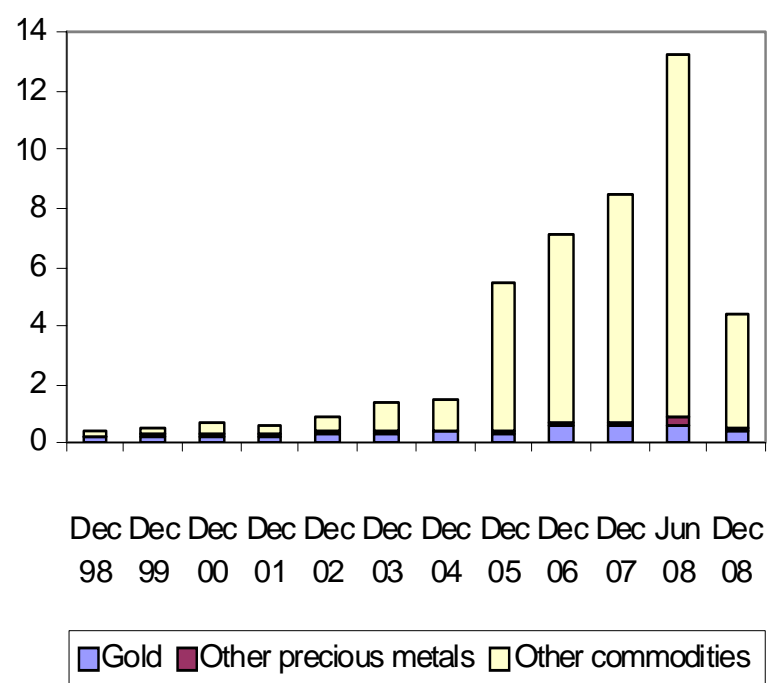
# The rapid expansion of derivatives contracts

Figure 1: Futures and options contracts outstanding on commodity exchanges, number of contracts, million, December 1993 – March 2009



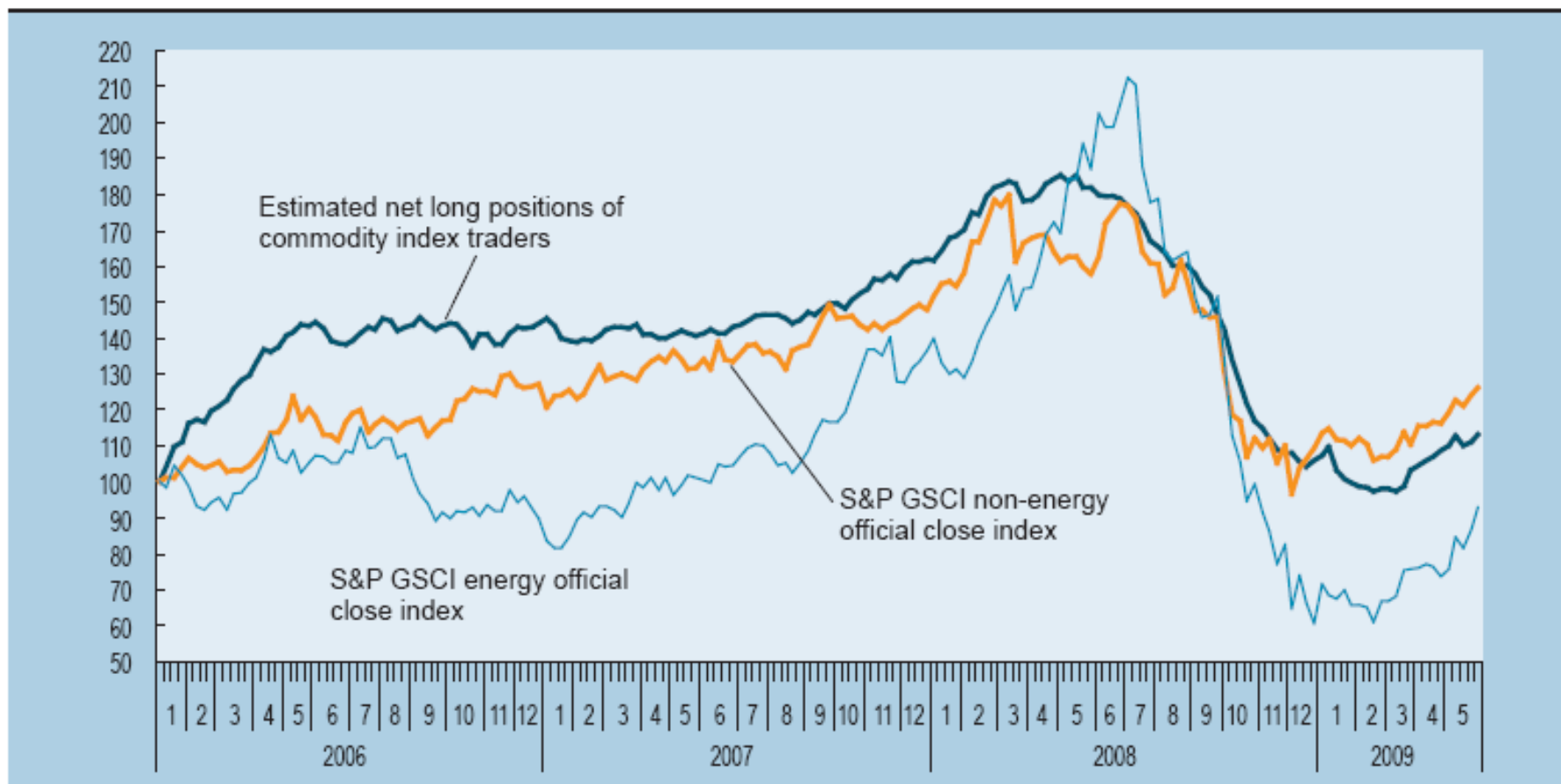
Source: BIS, Quarterly Review, June 2009, table 23B.

Figure 2: Notional amount of outstanding over-the-counter commodity derivatives, December 1998 – December 2008, \$trillion



Source: BIS, Quarterly Review, June 2009, table 22A.

# Estimated Index trader Positions and Commodity Prices, January 2006- May 2009



**Source:** UNCTAD secretariat calculations, based on Bloomberg; Goldman Sachs; and CFTC.

**Note:** The positions of commodity index traders are estimated based on the January 2006 weights of both the S&P GSCI and DJ-UBSCI, and index trader positions reported in the CFTC's Commodity Index Trader Supplement.

## Questions raised with respect to the recent commodity price swings

---



- Q: The large swing and synchronised commodity boom-bust cycle of 2002-9- can be explained exclusively in structural shifts in fundamental demand-supply relationships affecting simultaneously many commodities ?
- Q: Are portfolio investors' decisions based entirely on the development of commodity markets, i.e. in relation to demand-supply fundamentals of physical commodities?
- Q: How are commodity price dynamics related to development in other financial markets, e.g. bond, equity and currency markets?
- A story of market-fundamentals vs A financialisation explanation

## Factors behind the unprecedented price: A Financialisation Explanation



- The intensifying two-way interactions between the commodity and financial markets.
  - the financialisation of commodity markets in the early 1990s with the collapse of the ICAs, leading to wider use of risk hedging instruments and the expansion of derivatives markets
  - the rapid growth of commodity derivatives markets since the early 2000 – associated with dot-com bubble-burst, low interest environments and the recent upheaval in financial markets – the flight from equities/bonds to commodities as well as in search for inflation-, currency- hedging, risk diversification and higher returns.
  - New actors in commodity markets (investment funds, mutual funds, pension and hedge funds and sovereign wealth funds);
- High correlation across commodities as a result of commodity index trading and momentum trading, less reflective of the fundamentals;
- An intensification of financialisation in 2002-8 (in particular in 2006-8): the ‘commodity super-price cycle’ story at the back of Asian drivers and the high growth performance of EMs and other DCs coupled with ‘decoupling’ hypothesis

# Factors behind the unprecedented price swings: A Financialisation Explanation



- The flights from equity and bonds markets in the US where the advent of financial crisis in the summer 2007 led to further monetary easing: excess liquidity moving into commodity markets
- real interest rates- an important determinant of real commodity price working through shifts in the cost of carrying inventories.
- The CFTC granted investment banks an exemption from position limits in their over-the-counter (OTC) commodity swaps transactions
- The precipitous fall and collapse in commodity prices in the last Q of 2008:
  - in part a reflection of the actual and expected shift of demand-supply fundamentals due to the anticipated sharply weakened demand ;
  - resulting from the massive liquidation of long positions in commodity futures markets and other OTC deals resulting from deleveraging on the part of portfolio investors.
- disentangling empirically the two conditions( the fundamentals and the financialisation) is not easy, but the spectacular rise and fall in commodity prices for 2006-8 cannot be explained in terms of market fundamentals alone;

## Factors behind the unprecedented price swings



- The significant **overshooting** and **undershooting** in commodity prices – caused by portfolio investors who have not based their investment decisions on information of fundamentals of a specific commodity;
- Futures markets cannot play a role of “**Price Discovery**” and “**Risk Management**” if the EMH does not prevail in reality.
- Testing the EMH on account of detailed analysis of commodity market structures. The “EMH” implies that any and all information that is required for rational economic decisions is contained in prices determined in competitive markets.
- the **information failure** effects – if commodity prices are formed not necessarily on the basis of the information about demand and supply relationships of physical commodities
- The ‘**weight-of-money**’ effects – if perfect competition does not prevail; prices are influenced by a position taken by large traders
- The composition of traders (trading rules) among **informed** trading, **noise** trading and **uninformed** trading change as market conditions shift.

## Price dynamics and market structures



- Profit/arbitrage opportunities arising from the interface of these three trading rules, leading to a creation of **speculative bubbles**
- Futures prices can influence spot prices through profit arbitrages, leading not only to changes in precautionary demand for holding commodities, but also to shifts in **market sentiments**
- Activities in futures prices through leveraging and deleveraging of portfolio investors, leading to **overshooting** of spot prices in the first half of 2008 and **underpricing** in the second half of 2008.
- **Q:** Is speculation stabilising (if guided by fundamentals, then liquidity enhancing arbitrage dominates) or destabilising (if acting on fads)? If agents do not refer to fundamentals in decision-making, their expectation formation becomes **extrapolative** (not **regressive** with anchoring in fundamentals), leading to destabilising speculation – not moving back towards fundamental equilibrium
- Shifts from **fundamental equilibrium** to **bubble equilibrium** ( behavioural finance literature on existence of multi-equilibria)
- Asset prices deviating from fundamentals, if agents enter and act predominantly on fads
- More empirical analyses required on market structures and the **relationships between futures and spot prices.**

# Consequences of Market Failures

---



- It is not good for markets- markets do not work for hedging and risk management for those engaged in commodity production and trade:
- Price signal- does not indicate and predict properly a future price movement for investment and other technological advancement (for substitution and conversation)
- An enormous wedge between private returns (short-term gains) and social returns (long term consequences) as a result of market failures
- In the end, it is not a situation of winners and losers, but a negative-sum game for the global economy and community.
- A heavy cost of the GFC - \$10.8 tn in total costing \$10,000 per person- but this counts only the cost of the bailing-out in the advanced countries- much more in terms of the human costs - unemployment, working poor and the poor in DCs- a very heavy collateral damage to the real economy.
- The Cost for Commodity Dependent LICs- huge- **Commodity Dependence Trap**

## What can be done ? A Way towards making Markets Work

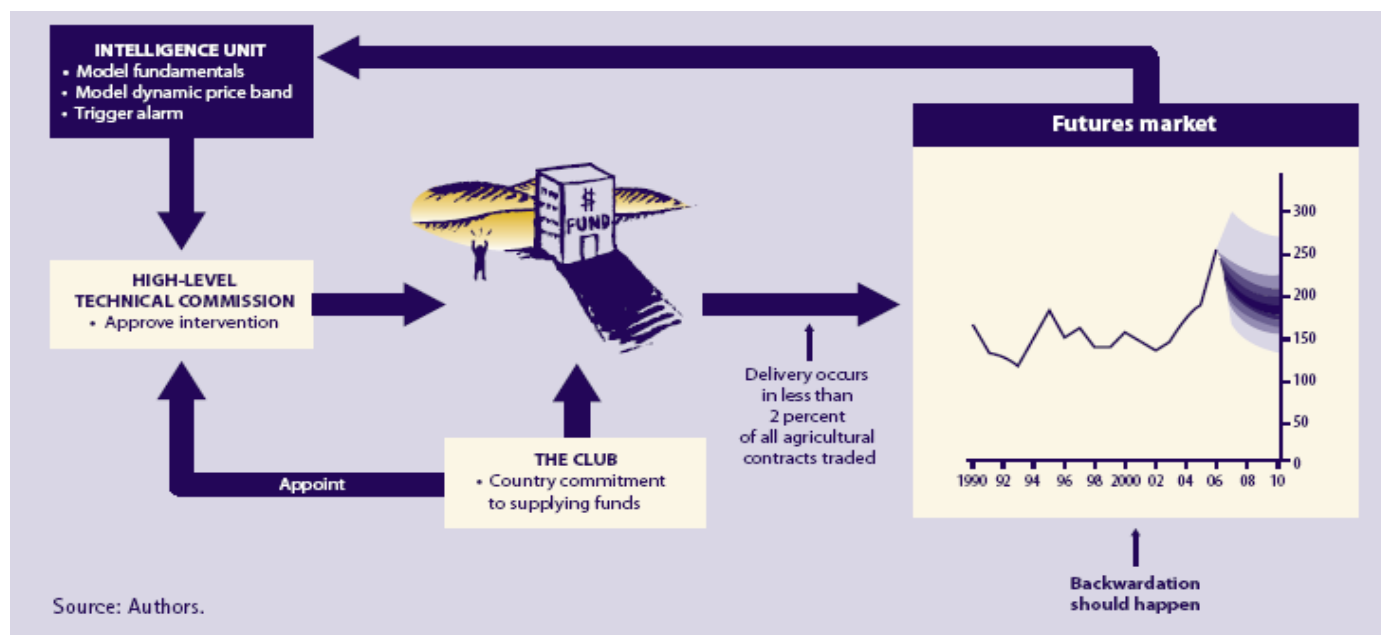


- The failure of the earlier ICAs should not be an excuse for non-action now
- The collapse in the ICAs- **technical problems** with implementation of ICAs and the lack of **political** and **financial support** from consuming countries. New Measures and Proposals: to make markets to work better- market enhancing measures
- Regulatory measures over markets (e.g. by CFTC): i) aggregate position limits on futures contracts; ii) increase the transparency of futures markets and OTC deals; iii) capital deposit requirements on portion of each future transaction; iv) Eliminate the loopholes in regulations; iv) counter-cyclical margin requirements.
- Regulatory reform of commodity derivatives markets as a part of reforms over other asset markets- requiring international coordination and harmonisation.
- What requires is a smart and efficient regulation, working in favour of market development; i.e. liquidity enhancing for risk hedging purposes
- Aiming at acting on excessive **volatilities** (defending price **levels** can be difficult when market fundamentals change rapidly)
- **Innovative** commodity stabilisation schemes cum better inventory management

# Innovative Commodity Stabilisation Schemes and inventory management



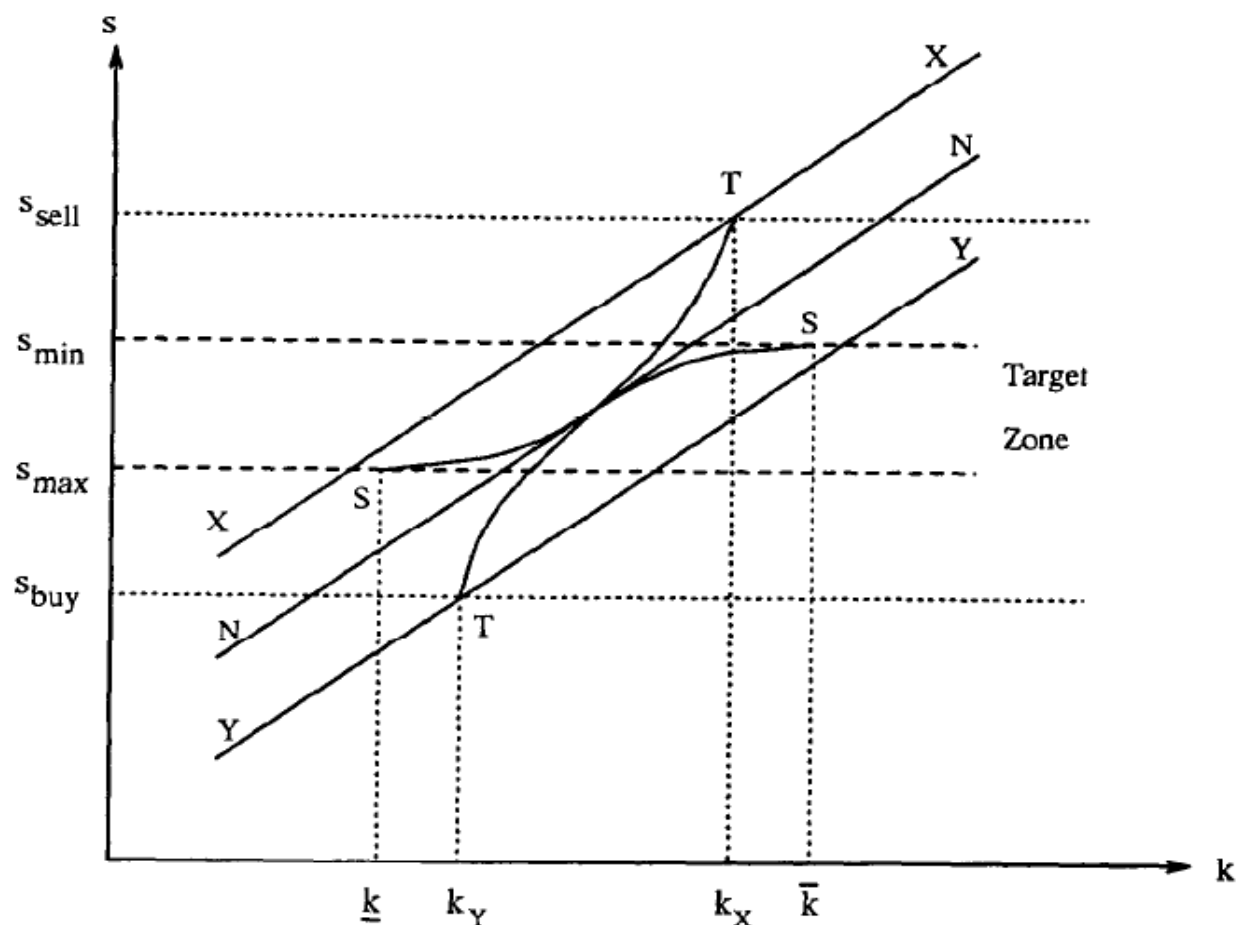
- IFPRI Proposal (Two- Pronged Schemes):
  - 1) A small physical food reserves should be established to facilitate a smooth response to food emergencies ( 5 % of the current food aid flow, managed by the WFP in different locations, backed up by an emerging funds
  - 2) An innovative **virtual** reserve, backed by financial funds, and intervention mechanisms in **futures market** should be set up to prevent price **spikes** and to keep prices close to fundamentals





## Target Zone schemes

- Working effectively on agents' expectation formation with “credible” intervention ( creating “honeymoon” effects and “announcement” effects)
- Which instruments can deliver this credibility?



## The Case for Price- stabilisation – Target Zone Schemes



- Moving Target zones applied to commodity derivatives transactions with the use of multi-tier transaction tax as a part of global fin. tran. tax
- understanding movements of “equilibrium” prices in market fundamentals
- implicit target or guidance zones for prices of main assets, including commodities ( a wide and adjustable target zones in the light of shifts in fundamentals).
- Multi-tier transaction tax schemes (Nissanke 2005)- working on agents’ expectation, taming excessive volatilities, leading to speculative bubbles
  - The **first tier** tax can be **zero** under normal market conditions operating within a band, as it serves “as a monitoring and controlling device”, but allow normal efficient function of markets with plentiful liquidity.
  - The **second tier** of the exchange surcharge would function as an automatic circuit-breaker at times of increased probability of speculative bubbles;
  - The **threat** of a surcharge levy alone, if credible, may sufficient to keep prices within a target zone, **without** the use of physical reserves or buffer stocks.
  - The possibility of orderly realignments of commodity prices in light of market fundamentals