Financial investment in commodities: Implications for developing countries and global financial stability

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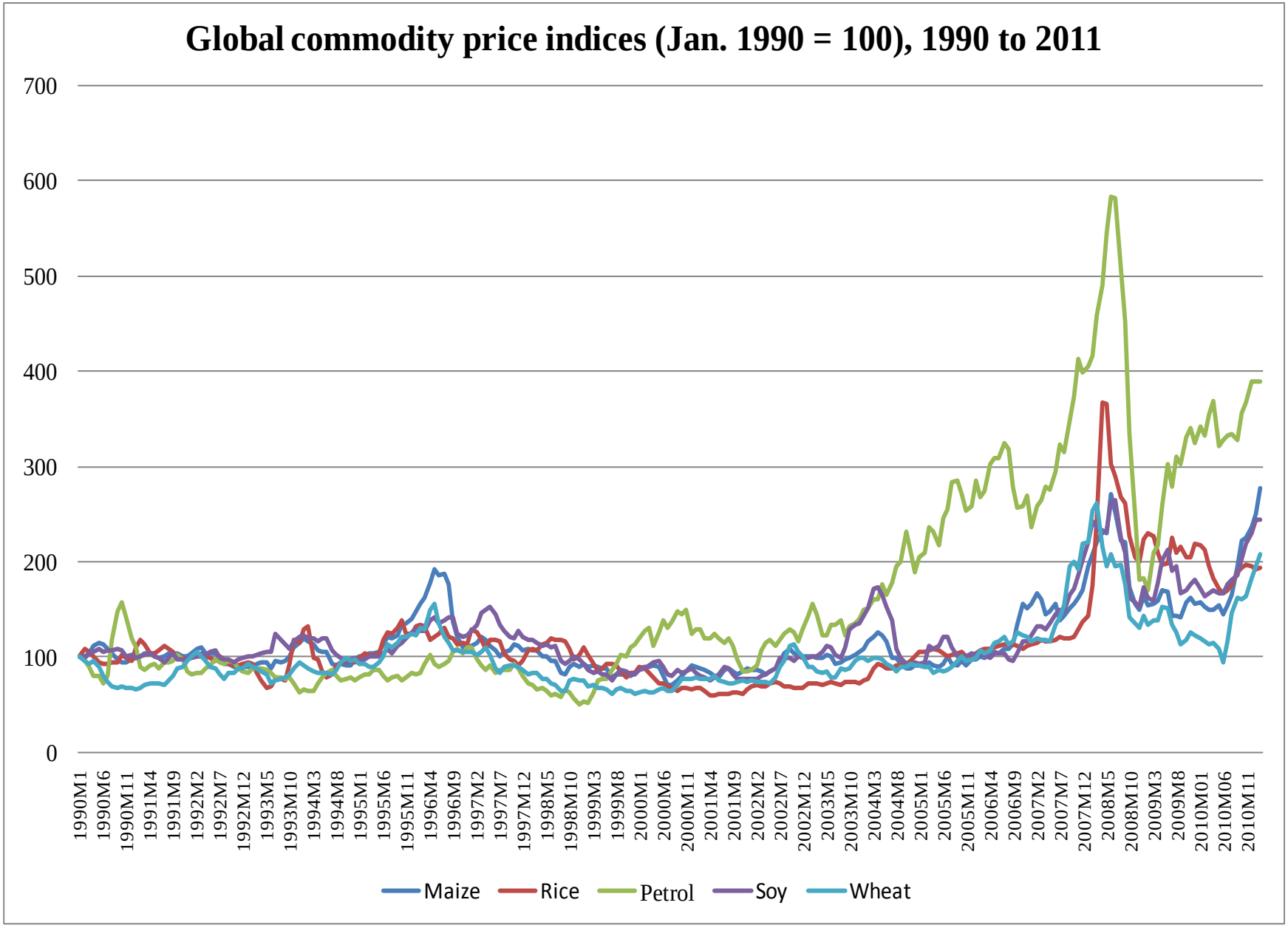
Global commodity price indices (Jan. 1990 = 100), 1990 to 2011
700
600
500
400
300
200
100
0
1990M1
1990M6
1990M11
1991M4
1991M9
1992M2
1992M7
1992M12
1993M5
1993M10
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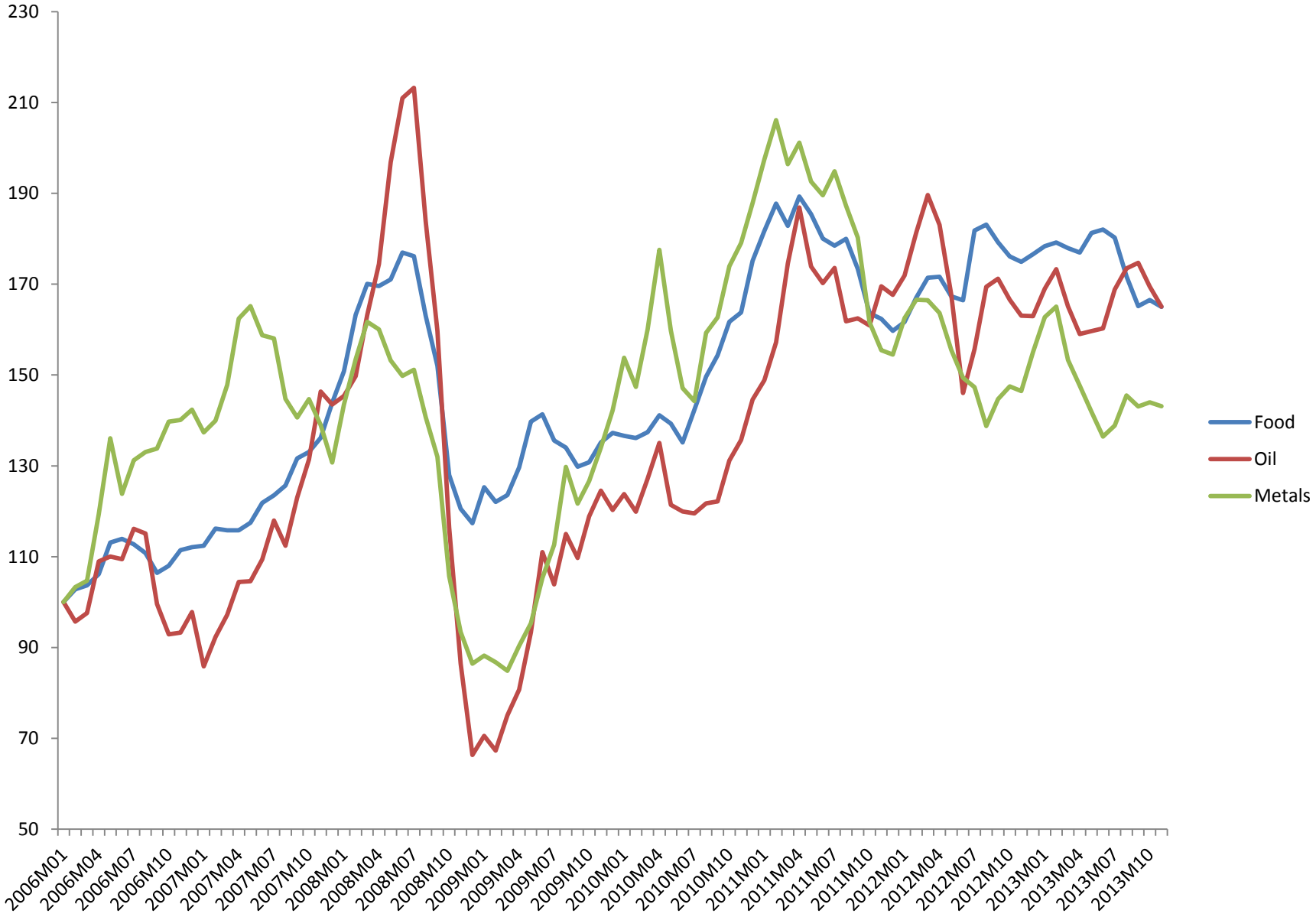
2010M06
2010M11
Maize
Rice
Petrol
Soy
Wheat

IMF Index of primary commodity prices



Speculation and commodity futures markets

- Function of speculators is to predict future market patterns and thereby reduce the intensity of change - that is, reduce volatility and stabilise prices!
- Similarly, commodity futures markets are supposed to reduce risk for cultivators and purchasers:
  - allow better risk management through hedging by different layers of producers, consumers and intermediaries;
  - enable open-market price discovery of commodities through buying and selling on the exchanges;
  - and therefore lead to lower transaction costs.

Financial deregulation and commodity speculation

- In 2000, the Commodity Futures Modernization Act deregulated commodity trading in the United States, by exempting over-the-counter (OTC) commodity trading (outside of regulated exchanges) from CFTC oversight.

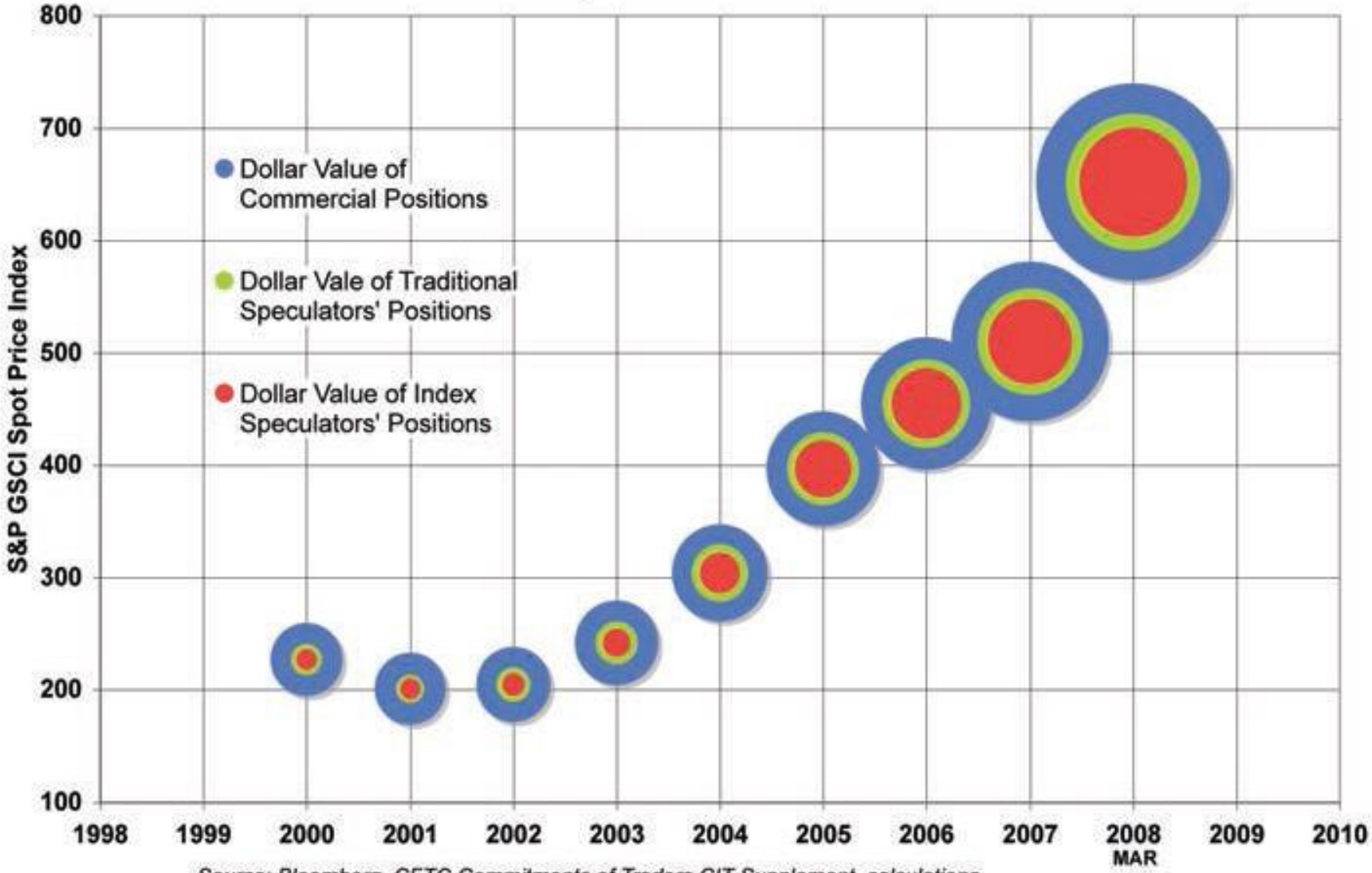
- Unregulated commodity exchanges allowed all investors, including hedge funds, pension funds and investment banks, to trade commodity futures contracts without any position limits, disclosure requirements, or regulatory oversight.

- The value of such unregulated trading was around $9 trillion at the end of 2007, more than twice the value of the commodity contracts on the regulated exchanges.

Financial deregulation and commodity speculation

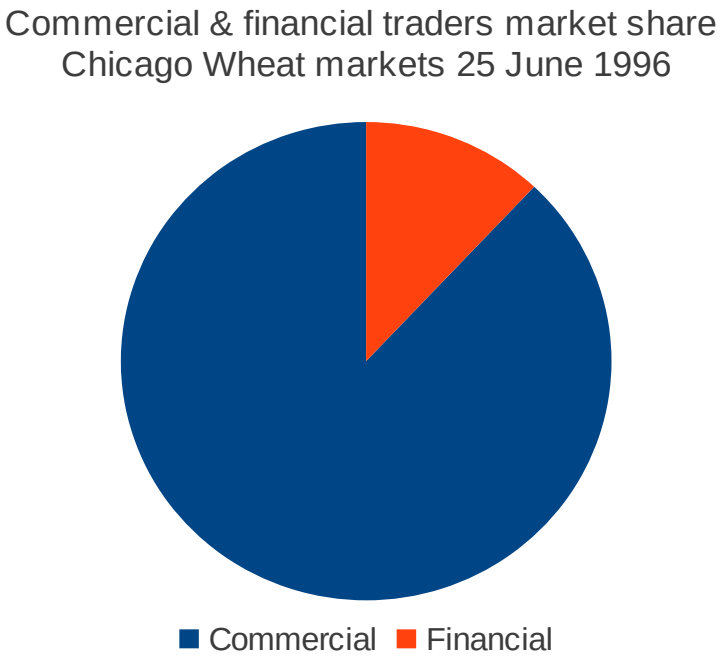
- As US housing finance market imploded, finance searched for other avenues of investment to find new sources of profit, like commodity speculation.
- By around June 2008, when the losses in the US housing and other markets because intense, it became necessary for many funds to book their profits and move resources back to cover losses or provide liquidity for other activities – so prices fell to earlier levels.
- Commodity markets became like other financial markets, prone to information asymmetries and associated tendencies to be led by a small number of large players.
- So the supposed benefits of price discovery and hedging were no longer outcomes of futures markets, because price signals became wrong, misleading and driven by investor behaviour of some large players.

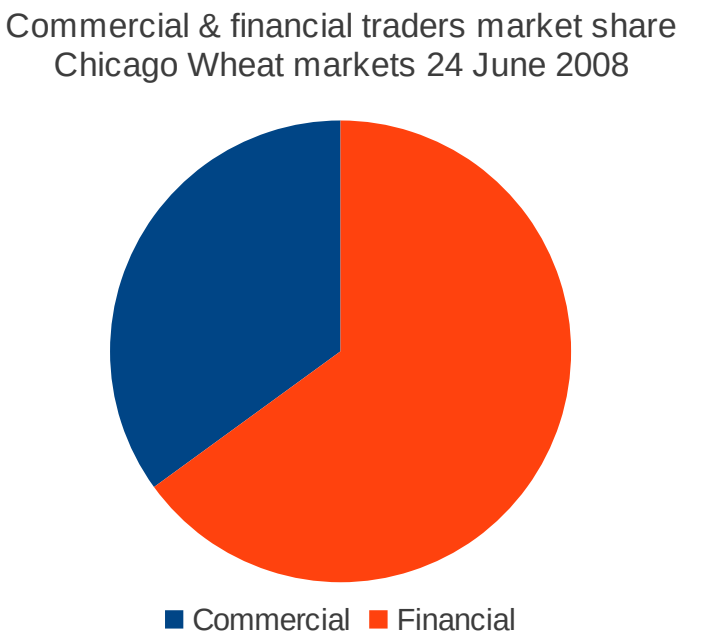
Commodity Futures Market Size



Source: Bloomberg, CFTC Commitments of Traders CIT Supplement, calculations

Significant increase in assets of financial players in commodity markets



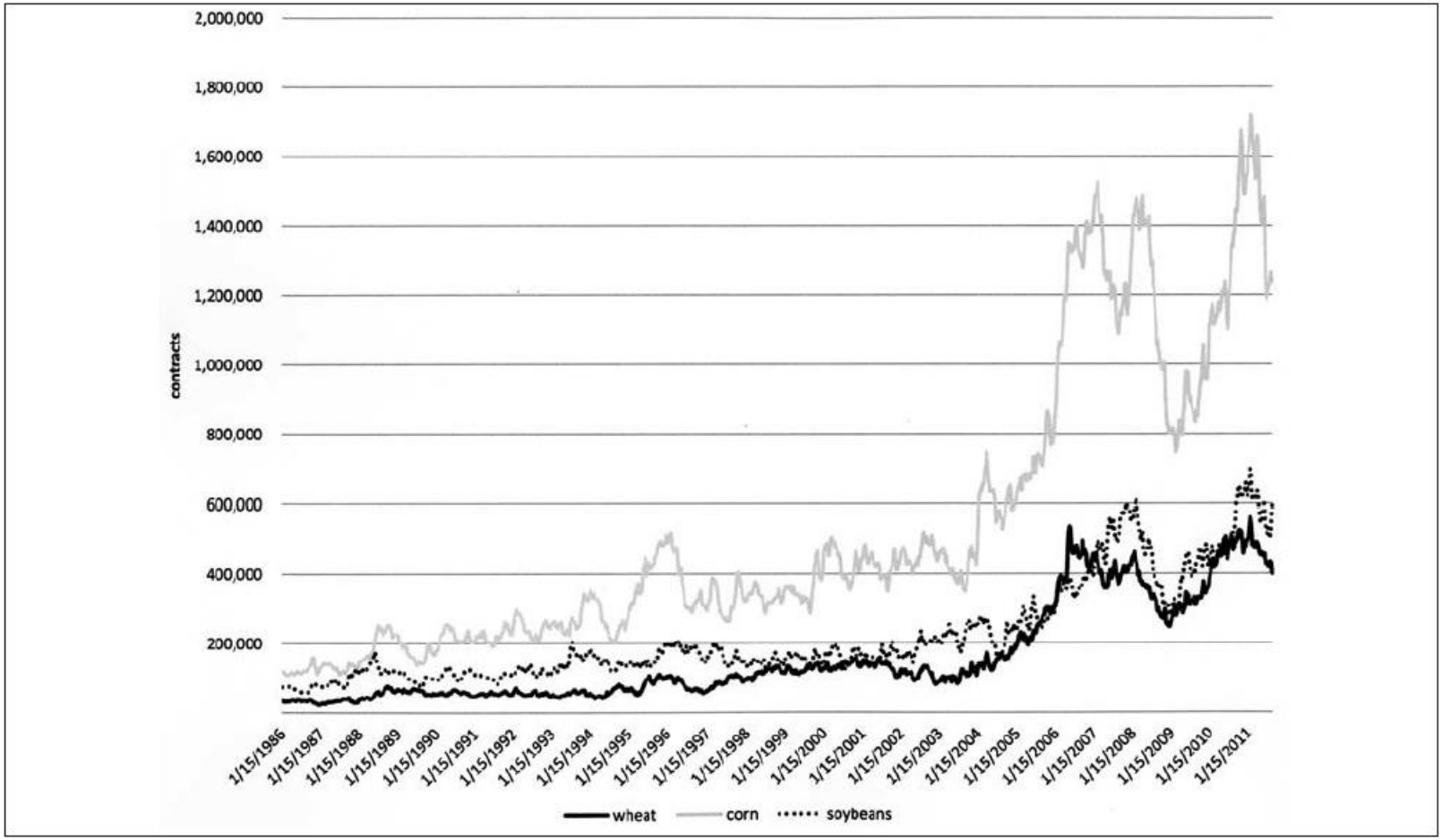


Monetary policy and commodity speculation

- The post-crisis recovery measures provided further incentive for such financial activity as credit was eased for major banks, which faced a near-zero interest rate regime.
- Successive rounds of quantitative easing and “extraordinary measures” have continued to fuel financial players’ appetite for commodity index investment.
- So prices collapsed in the second half of 2008 but rose rapidly again in 2010-11.
- Continued attraction of commodities as a financial investment has meant that price volatility persists around a high level even as the “commodity super-cycle” may be drawing to a close.

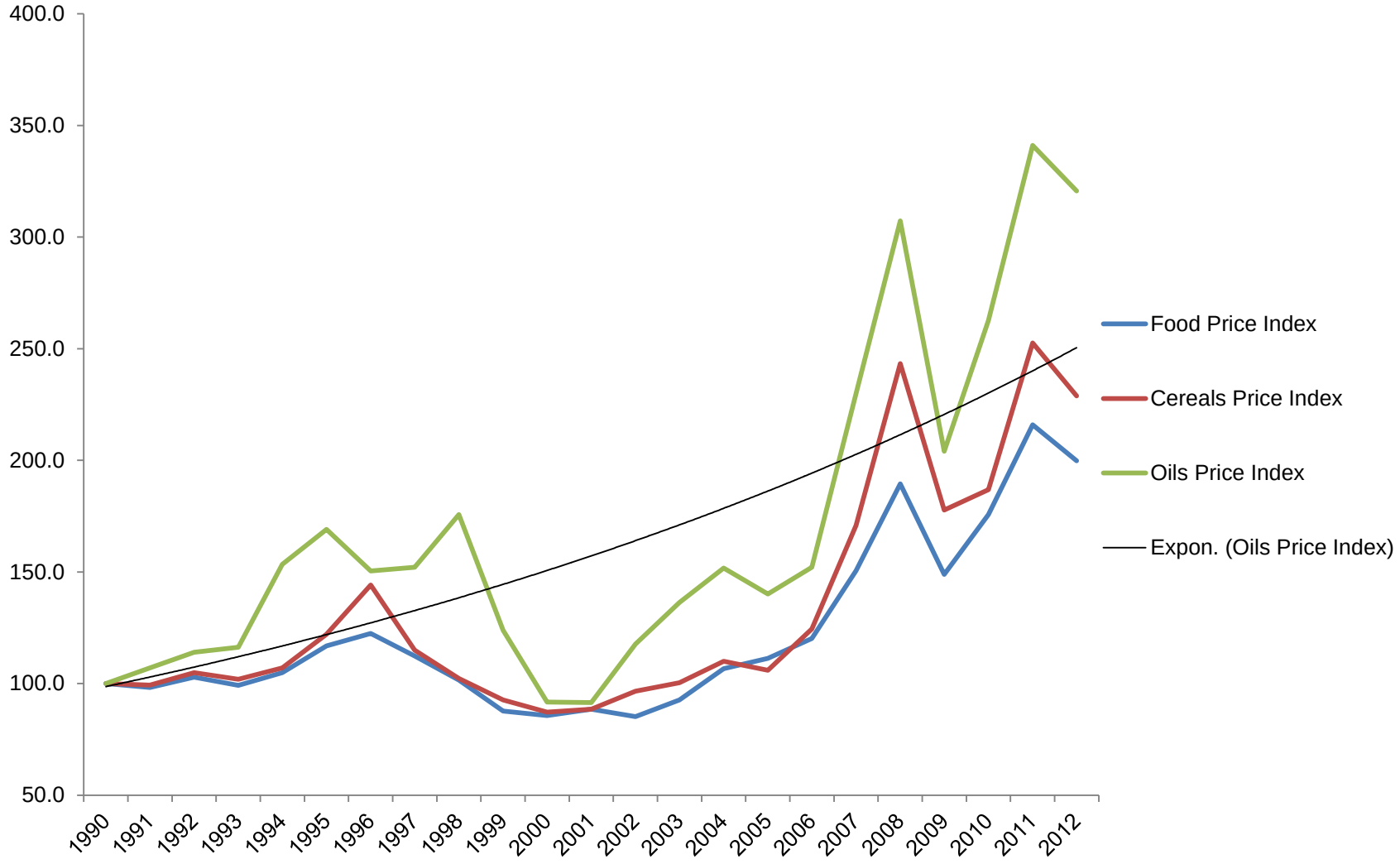
Open interest in futures for wheat, corn and soyabeans 1986 to 2011

(Chicago Board of Trade)

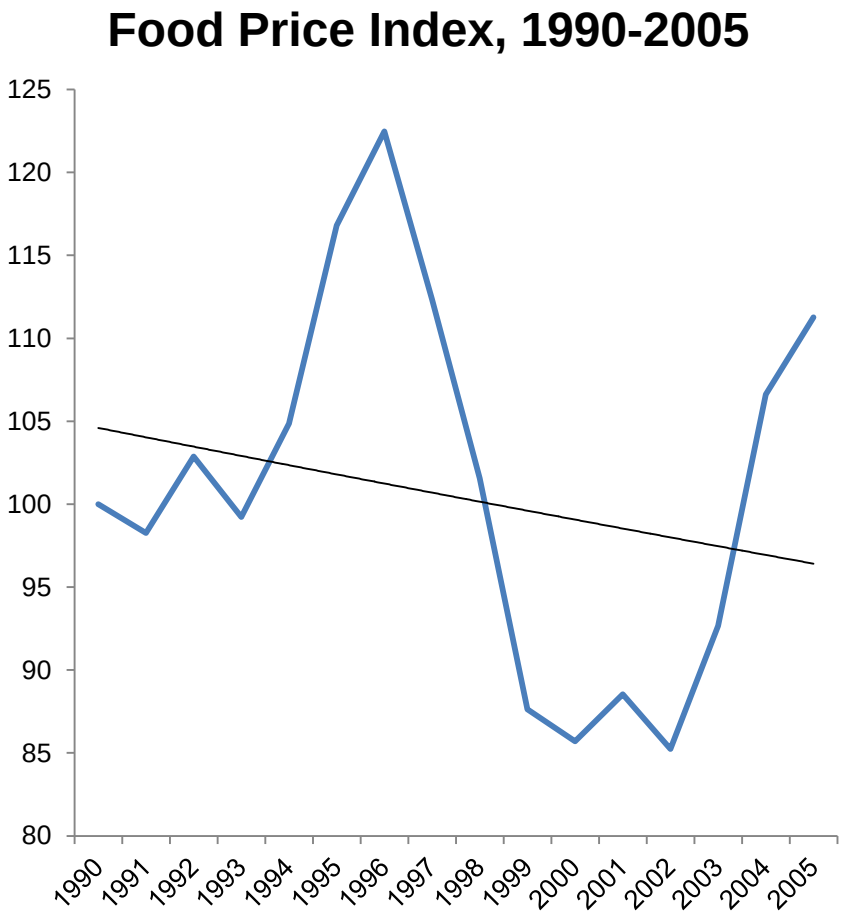


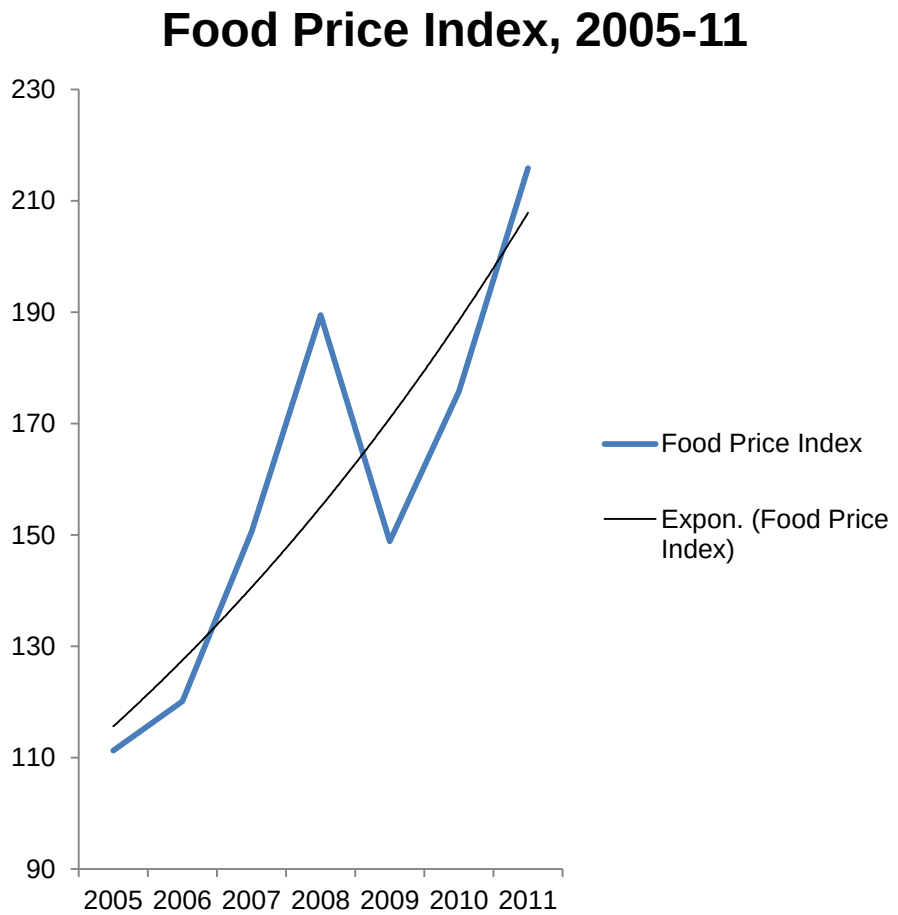
Open interest in futures for crude oil, NYMEX, 1986 to 2011

FAO Food price indices



There is a clear break in food price trend in 2005





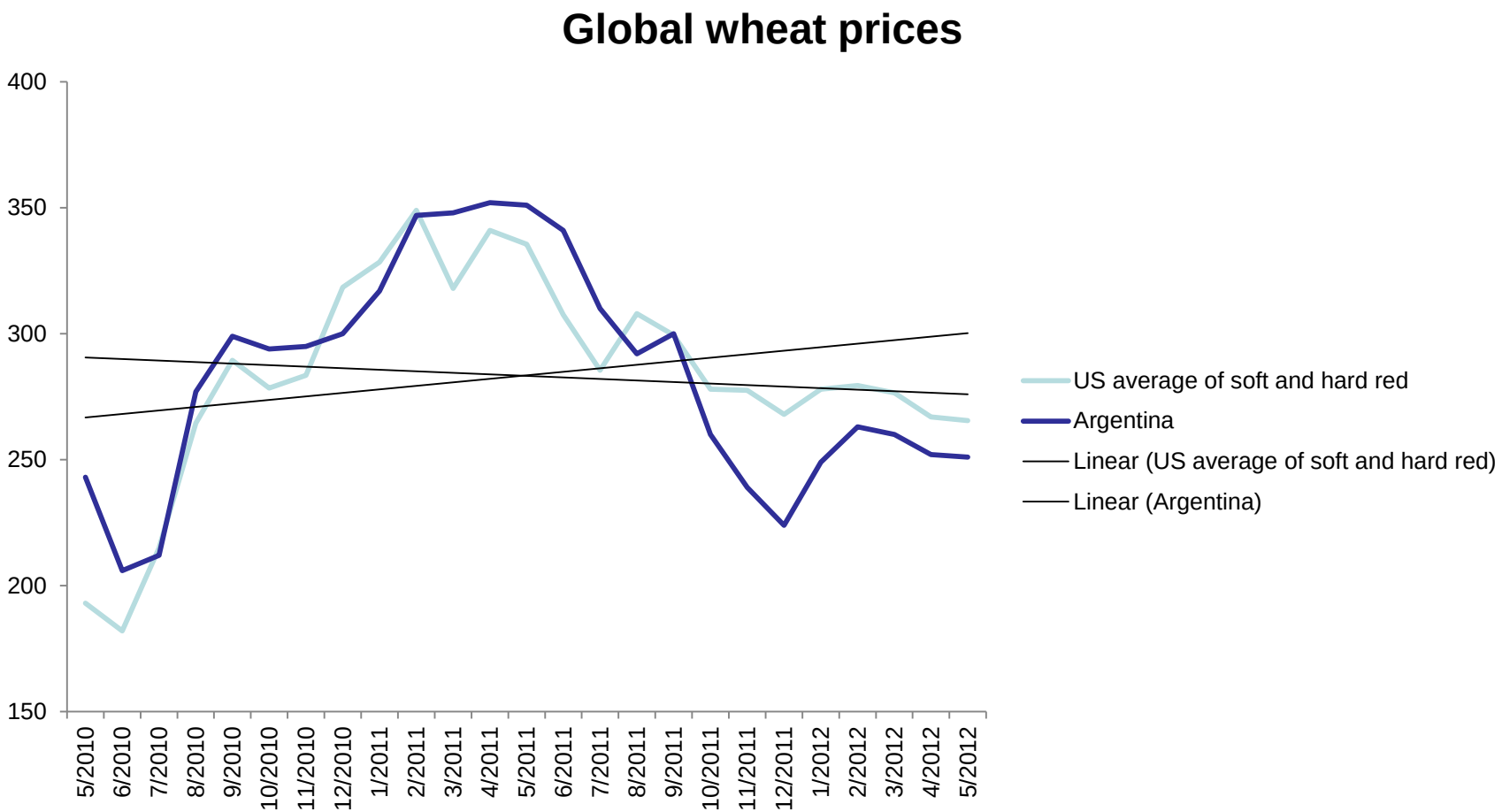
Food price movements since 2007 could not have been created only by real supply and demand changes

- Scarcely any change in global supply and utilisation over this period
- Output changes were more than sufficient to meet changes in utilisation in the period of rising prices, while supply did not greatly outstrip demand in the period of falling prices.
- Stock holding has remained stable at around 23 per cent of utilisation.
- Claim that increased demand from China and India has led to rising prices is completely unjustified, because both aggregate and per capita consumption has fallen in both countries.
- Fluctuations have been greatly amplified (rather than reduced) by financial activity in food markets.

Some supply factors for food have been and will continue to be significant

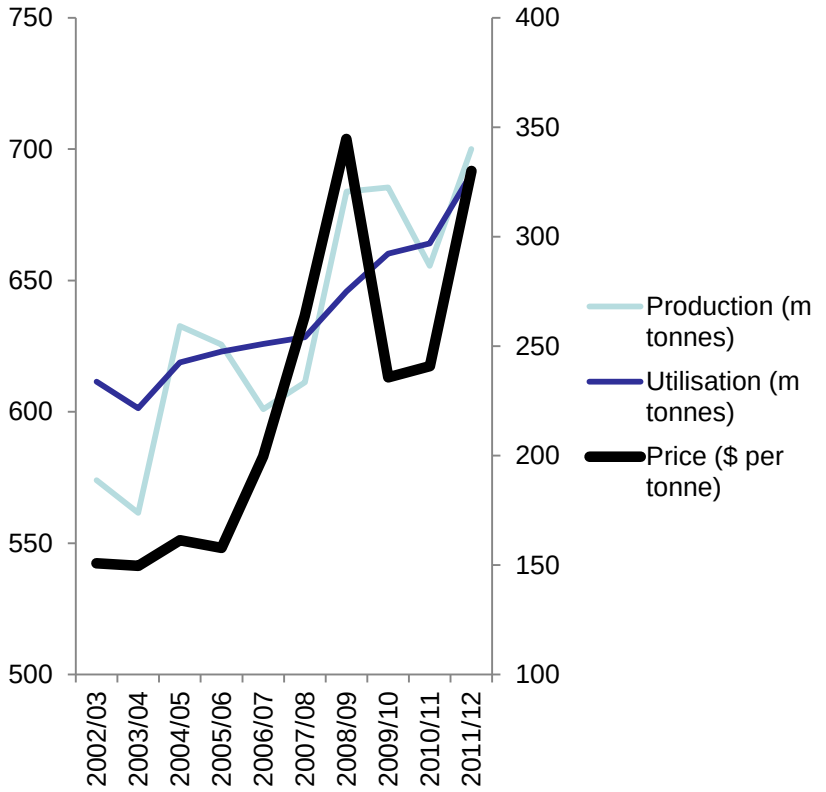
- Short-run factor
  - diversion of both acreage and food crop output for biofuel production
- Medium term factors
  - rising costs of inputs
  - inadequate credit to cultivators
  - falling productivity because of soil depletion
  - inadequate public investment in agricultural research and extension
  - impact of climate changes on harvests

The strange case of global wheat prices

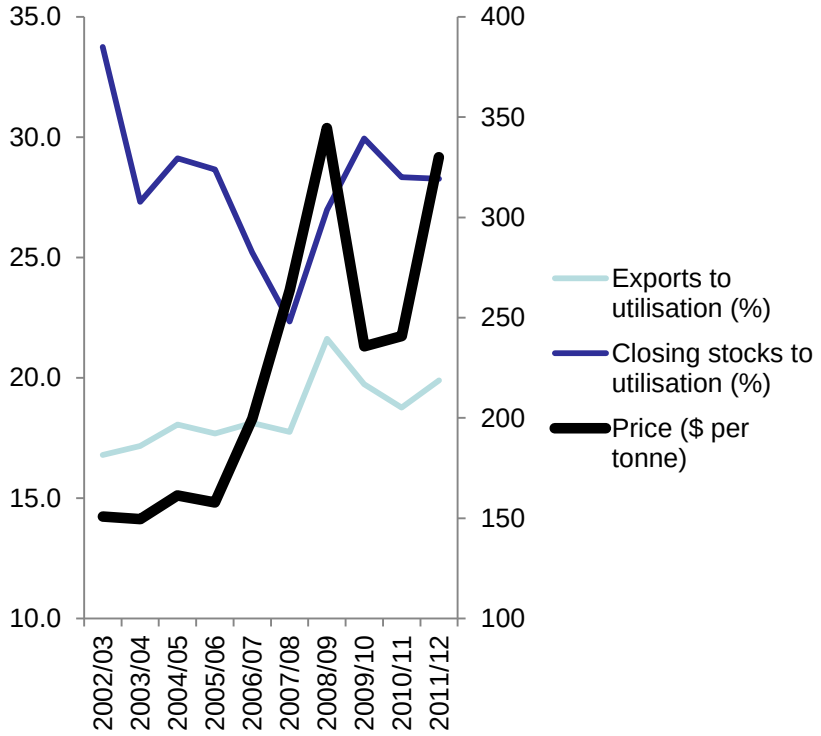


Supply (production) and demand (utilisation) cannot explain price movements

Global production, utilisation and price of wheat



Exports and closing stocks of wheat as % of global utilisation



So what happened?

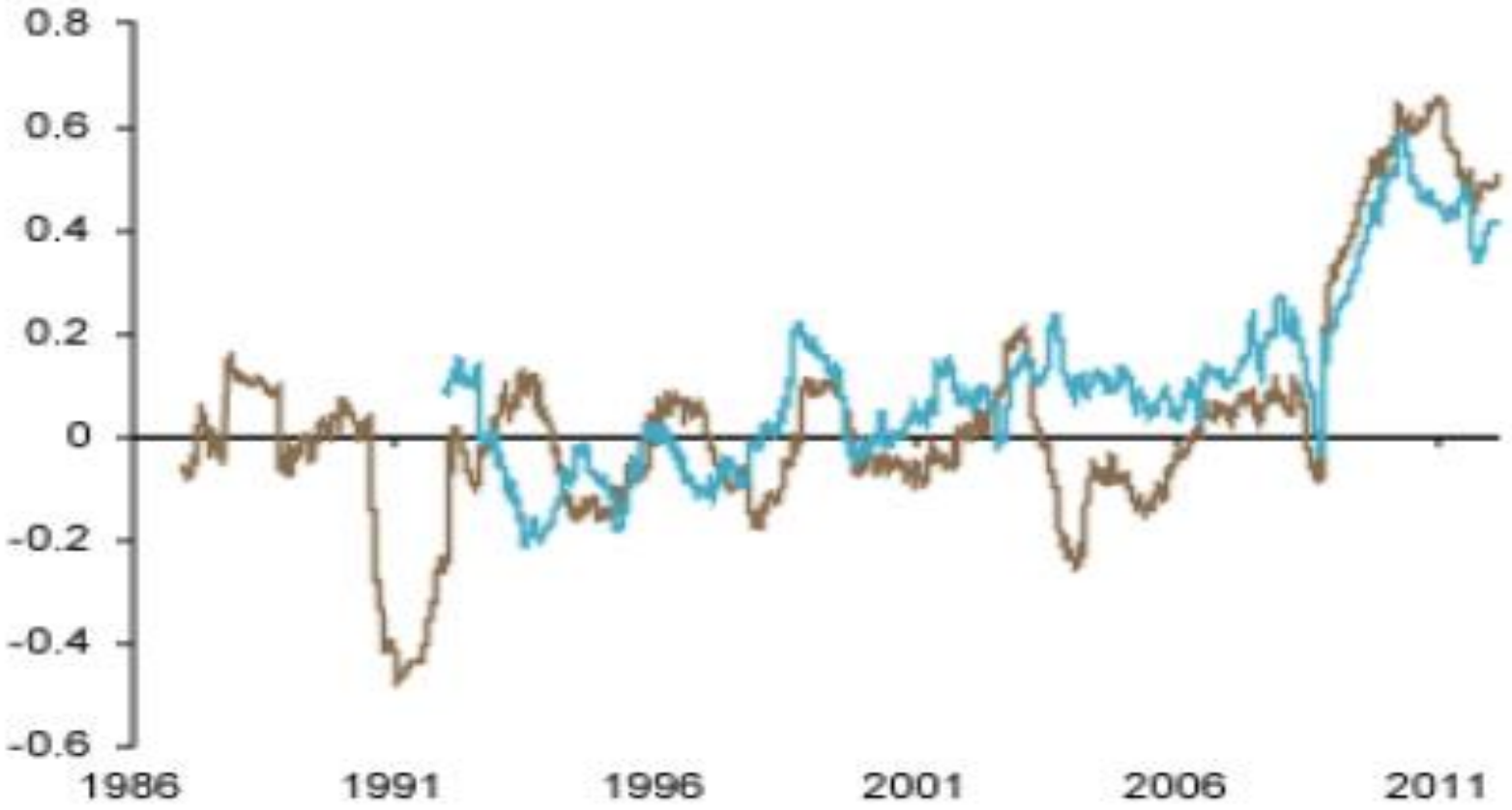
- Rumours and media reports focused on some temporary supply factors (harvest failure in Ukraine and Canada, export ban in Russia) even though total global supply actually increased in this period.
- Some grain traders and financial players made massive profits in this period (e.g. Glencore).
- Now major agribusinesses also behave like financial players, make profits from speculation in futures market. This also true of ABCD (Archers Daniel Midland, Bunge, Cargill, Louis Dreyfus).
- So even when prices are stable over the year as a whole, price volatility generates financial profits and creates food insecurity.

Implications

- Excessive volatility in primary commodity prices.
- In general, commodity markets have started behaving like other financial markets – prone to asymmetric information and all the associated negatives like herding, moral hazard, adverse selection, incentive incompatibility.
- Commodity futures markets no longer reflect “real” movements in demand and supply.
- Instead they are now closely correlated with prices of financial assets like stocks.
- Financial investors (like investment banks and hedge funds) are now involved in trading physical commodities; while large commercial traders pursue speculative trading strategies, sometimes even with their own separate financial services units or hedge funds.

Correlation between commodity and equity indices, 1986–2012

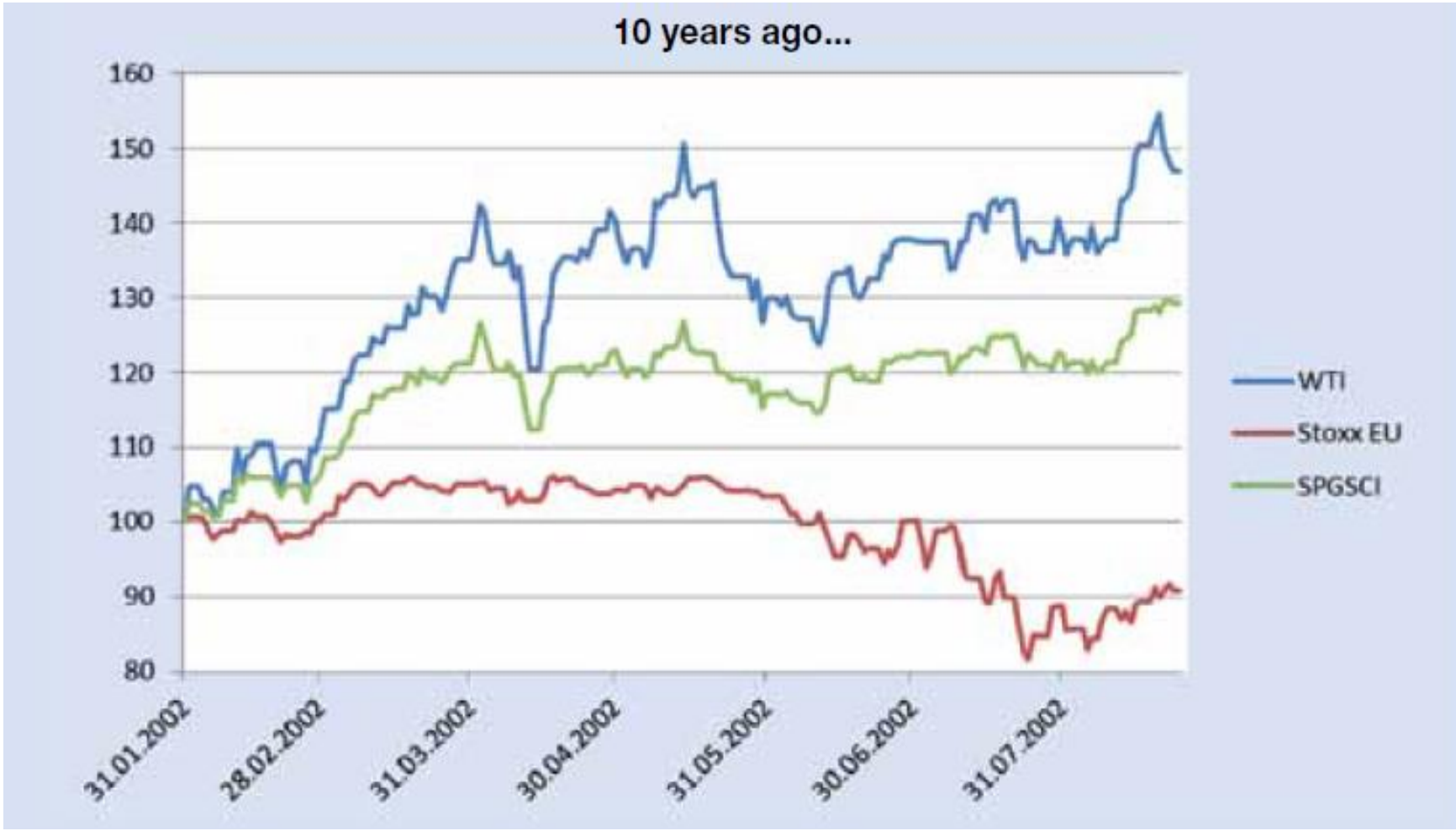
(Coefficient)



Source: UNCTAD secretariat calculations, based on Bloomberg

Note: The data reflect one-year rolling correlations of returns on the respective indices, based on daily data.

Stock market (Stoxx EU) Oil prices (WTI) and Commodity Futures Prices (SPGSI)



Stock market (Stoxx EU) Oil prices (WTI) and Commodity Futures Prices (SPGSI)

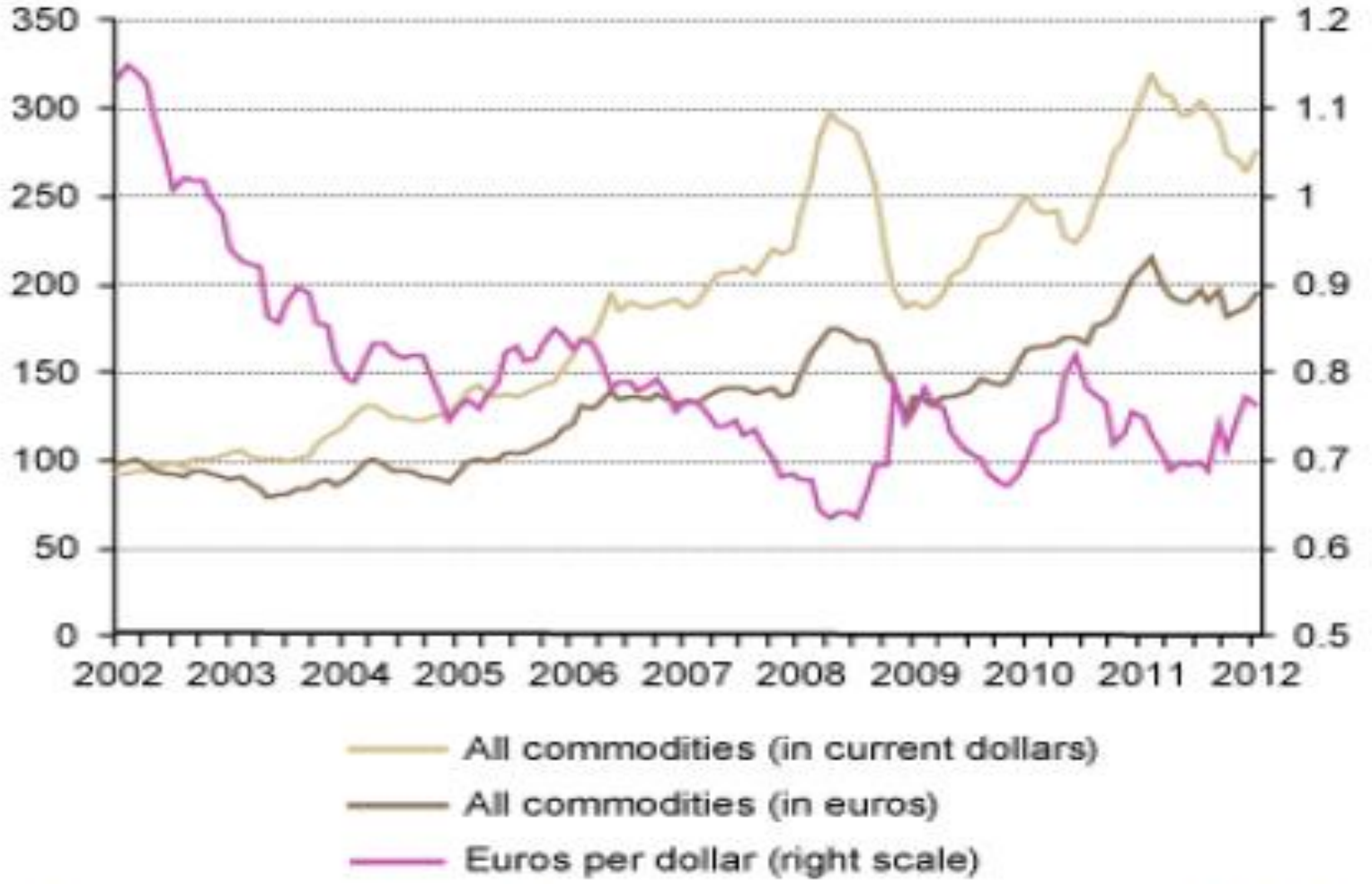
Link between commodity prices and financial investment before and after 2002

(Valiente 2013)

	Before 2002	After 2002	Whole sample	Models
Crude oil	No	Yes	No	ARCH
Natural Gas	No	No	No	ARIMA, Granger
Aluminium	No	Yes	Yes**	ARCH, OLS
Copper	No	Yes	No	ARCH, OLS
Wheat	No	Yes	No	ARIMA, OLS
Corn	No	Yes	No	OLS
Soybean oil	No	Yes	Yes	ARCH, OLS
Cocoa	Yes*	Yes*	Yes*	OLS
Coffee	No	Yes*	No	OLS

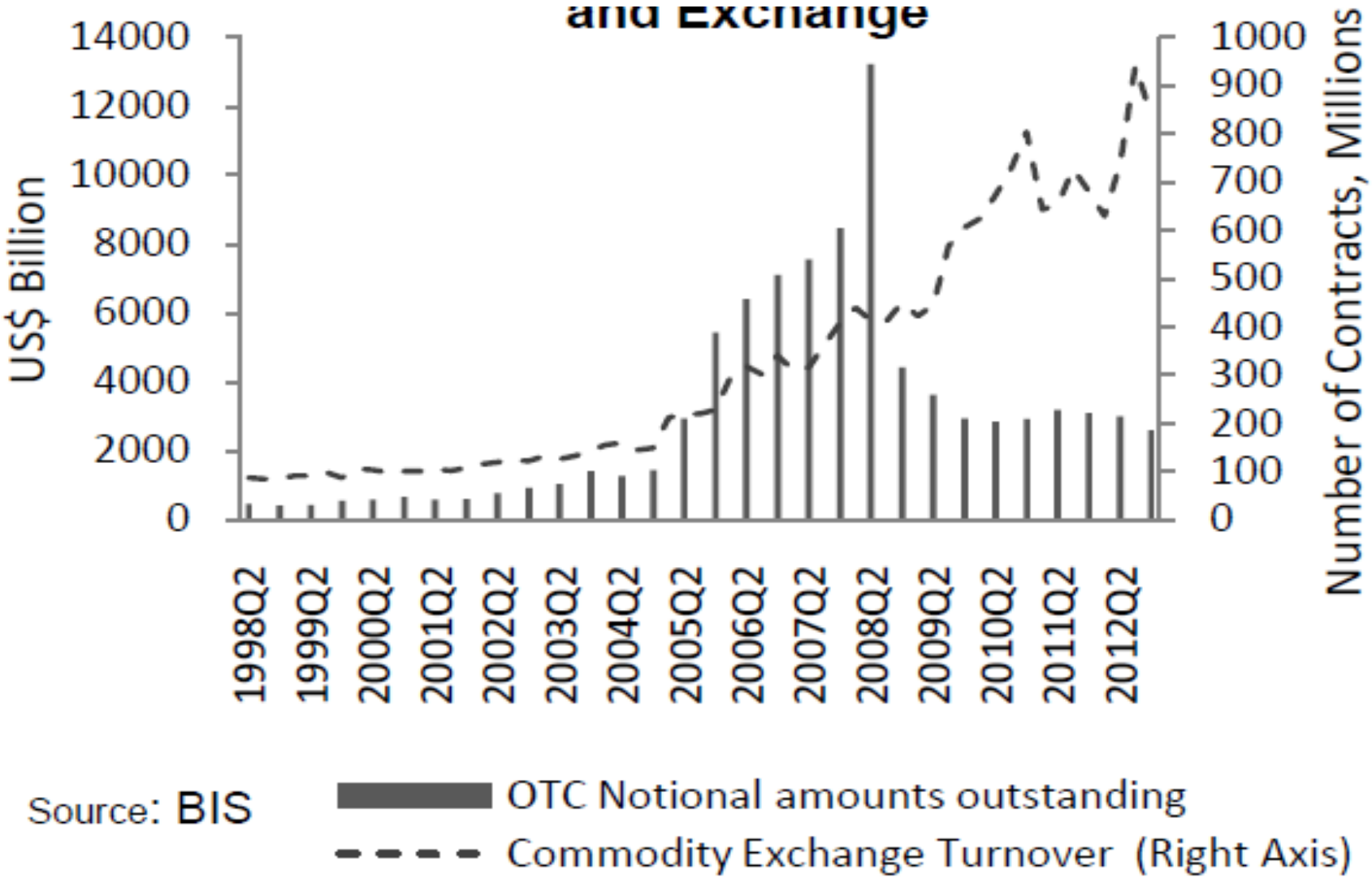
Monthly evolution of non-fuel commodity price indices and exchange rates, January 2002-January 2012

(Index numbers, 2000=100 and exchange rate)



Source: UNCTAD, *TDR 2011* (Chart 1.4), based on *UNCTADstat* Commodity Price Statistics and IMF, *IFS*

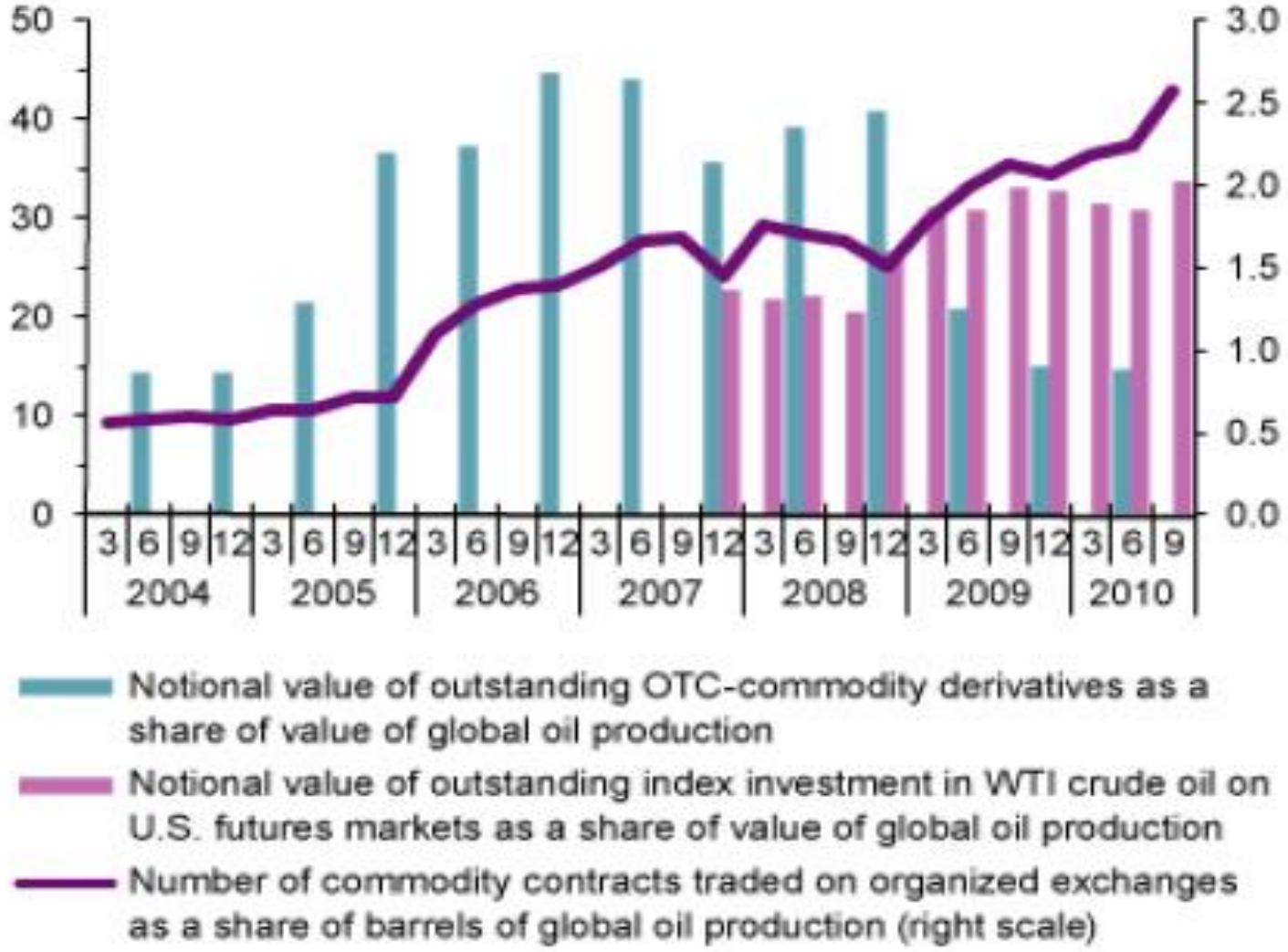
Global commodity trading on exchanges and OTC



Source: BIS

Financial investment in commodities as a proportion of global oil production, 2004-2010

(Percentage)



Requirements for financial re-regulation of commodity futures markets

- Bring all commodity transactions into regulated exchanges, with strict imposition of capital requirements, margin requirements and position limits
- Improve transparency and disclosure of positions
- Strict limits on the entry of financial players into commodity futures markets, through positions limits etc.
- Elimination of the “swap-dealer loophole” that allows financial players to enter as supposedly commercial players.
- Banning of futures markets for grain trade in countries where public institutions play an important role in grain trade.
- Capital controls of different sorts on short-term capital flows in developing countries, particularly to prevent their destabilising impact on domestic food prices.

What has happened so far?

- G20 statements – Financial policy for commodity futures markets should aim to improve transparency; mitigate risk related to OTC trading; and protect against market abuse.
- Dodd-Frank Act in the US – Specific clauses on disclosure, trading on exchanges, etc.
- EU Proposals for MiFID, MiFIR and EMIR.

G20 proposals for country commitments

- Standardization of OTC derivatives contracts
- Central clearing of OTC derivatives contracts
- Exchange or electronic platform trading
- Transparency with respect to trading and reporting to trade repositories
- Application of central clearing requirements
- Margin requirements (in addition to capital requirements).
- Only Japan and the United States had adopted the necessary legislation to reach the goal of having derivatives centrally cleared by the end of 2012, while the EU had only reached a political consensus regarding legislation.

Changes in rules for OTC trading

- Clearing requirement introduced for standardized OTC derivatives
- Requirement to report to trade repositories
- Margin rules for non-cleared derivative transactions.
- Exemptions for the clearing and margin rules requirement for non-financial entities/counterparties that use OTC derivatives for hedging commercial risks.
- In the US, OTC derivatives subject to the clearing obligation have also to be traded on registered trading platforms such as exchanges.
- In the EU, the intention is to transfer OTC trade to regulated exchanges but the the list of derivatives covered is yet to be defined.

Position limits

- Limits on the maximum position in one commodity futures contract or in all futures contracts of one commodity combined that may be held by one trader or class of traders.
- Supposed to prevent domination or manipulation of the market
- Typically only imposed on non-commercial traders, with commercial traders getting hedging exemptions.
- This can be a problem because many commercial players now behave like financial players.
- In the US, implementation of Dodd-Frank law on this was affected by successful lawsuit against it filed by ISDA and SIFMA. The CFTC has appealed the decision, but final court decision is still pending.
- Position limits are recommended in the EU but not yet applied.
- Level of position limits is crucial – if set too high they can be meaningless.

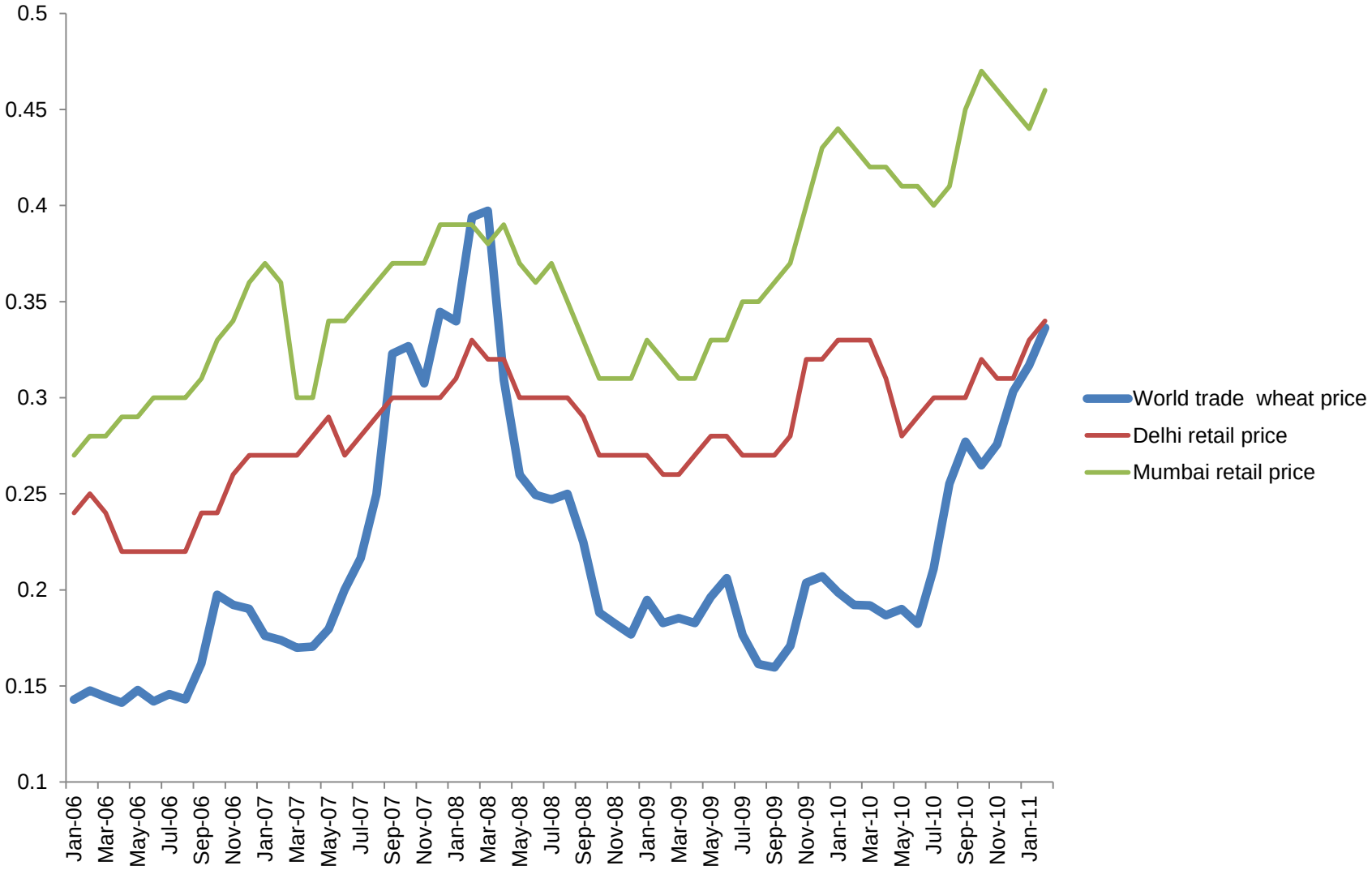
Other regulations

- Transparency – Reporting requirements for all cleared derivatives transactions and all swaps (on exchanges and off).
- Price stabilization - Circuit breakers or standstills that come into effect when prices fluctuate above a certain level in a certain time span.
- Restrictions on certain actors: Only restrictions are on proprietary trading and High Frequency Traders.

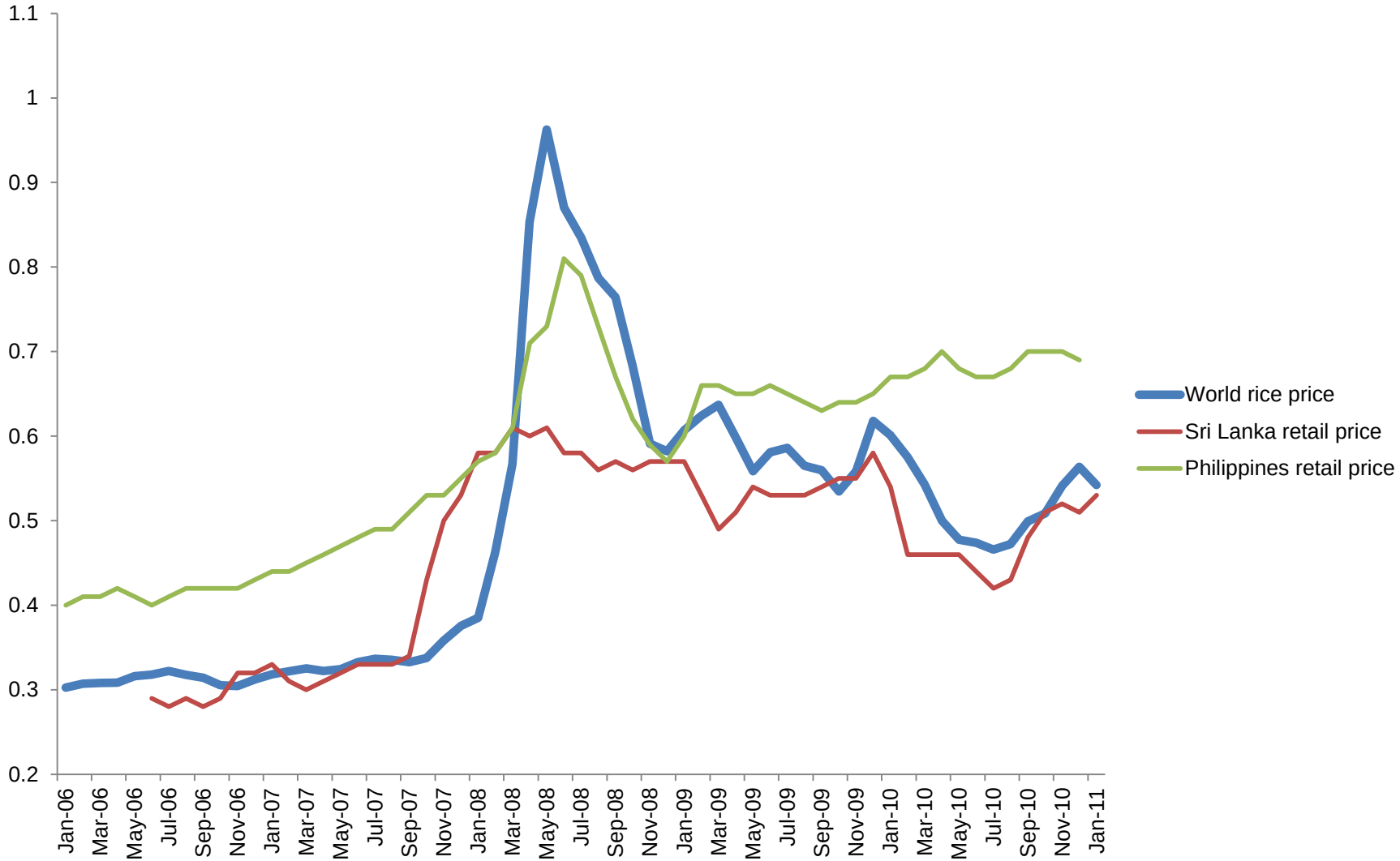
Regulation is still inadequate

- Commodity derivative transactions still do not need to be regularly reported to authorities and public
- Position limits – situation is status quo ante
- Capital, reserve and margin requirements
- Swap dealing still possible and only lightly regulated
- Potentially destabilising trading strategies like index replication, technical/algorithmic trading and HFT still persist.
- Incentives still exist for commercial players to profit from behaving like financial players.
- Commodity price volatility may persist creating financial and real damage for developing countries.

Wheat: Global trade and Indian retail prices ($ per kg)



Rice prices in Sri Lanka and Philippines ($ per kg)



National policy issues

- Effective state intervention for food price stability and food security requires fiscal resources – but developing countries already have large fiscal deficits as outcome of financial crisis.
- They can be crowded out of international capital markets by US and other developed economies (tapering etc.)
- Private capital moving out also causes currency devaluation, so food imports become more expensive in local currency.
- So developing countries caught in pincer movement between volatile global prices and falling exports on the one hand, and reduced fiscal space and depreciating currencies on the other hand.

Real economy and international measures

- Strong government interventions to protect developing country agriculture, to provide more public support for sustainable and more productive and viable cultivation patterns and to create and administer better domestic food distribution systems.
- International arrangements and co-operative interventions, such as strategic grain reserves, commodity boards and other measures to stabilise world trade prices.
- Compensatory financing mechanism of IMF to be activated in cases of sudden food price spikes.

Control of finance to stabilise food prices

- Bring all commodity transactions into regulated exchanges, with strict imposition of capital requirements, margin requirements and position limits, and limits on exemptions.
- Improve transparency and disclosure of positions, and ensure disclosure on physical stocks held.
- Impose strict limits on the entry of financial players into commodity futures markets, through Volcker rule on commodity trading etc.
- Eliminate the “swap-dealer loophole” that allows financial players to enter as supposedly commercial players.
- Ban futures markets for grain trade in countries where public institutions play an important role in grain trade.
- Institute capital controls of different sorts on short-term capital flows in developing countries, particularly to prevent their destabilising impact on domestic food prices.

Thanks for your attention!