Finance and Food
Speculation on food prices
Commodity-linked financing

MFRE

Lecture 2

Mission Statement

Learn how commodity futures markets work,

Learn and practice risk management,

Formulate and test trading/hedging strategies,
In preparation for future professional roles

Agenda

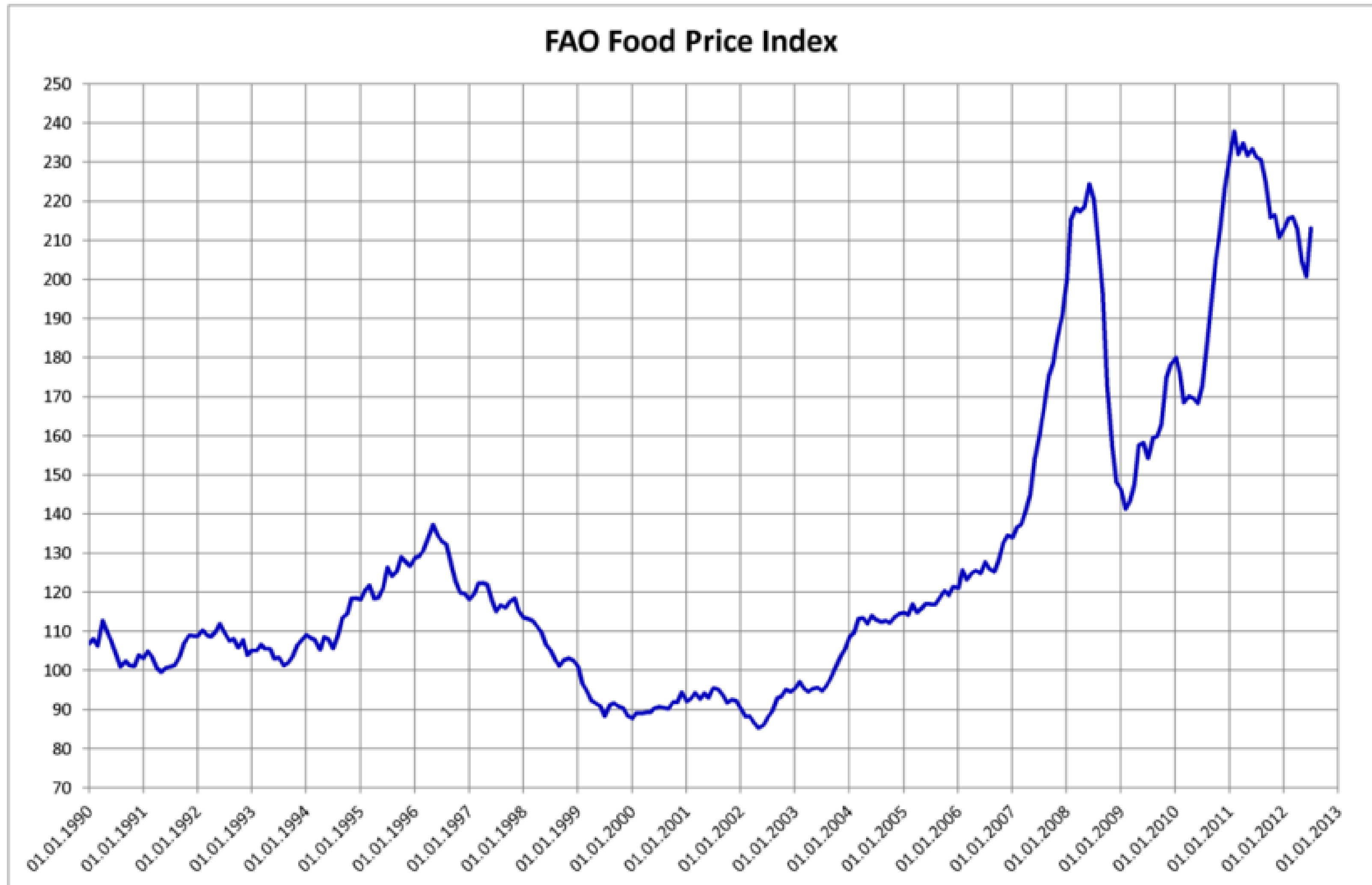
Last Class:

- Futures contracts – link the financial and physical worlds

Today: Finance and Food

- Does speculation affect food prices?
  - Understanding the transmission mechanism through the futures market
  - Regulatory considerations
- Commodity-linked financing
  - Credit crunches and their effect on food prices in different locations

FAO Food Price Index 1990-2013



Let's define speculation

Speculation:

Participation by non-commercial users in the market (i.e. not producers or end-users)

Question for you:

Does financial speculation affect food prices?

Does financial speculation affect food prices? If it does – which do you think is true?

	Short Term	Long Term
Makes prices higher		
Makes prices lower		

Arguments for and against Speculation:

Oxfam type agencies, vocal about food security

Fact: High and volatile food prices hurt the poor

Assertion: Speculation linked to higher volatility and sometimes higher prices for food

Banks' assertions:

- Provide liquidity – improve market efficiency
- Speculators exist in all markets regardless of whether there's a futures exchange or not

The Mechanics

Regulation of Commodity Futures

1929 -32: Great Depression; Banks' risky behaviour played role

Result: Banking Act of 1933: Glass-Steagall Act

Separated **commercial banking** and **investment banking**

Commercial banking: deposit-gathering / loan-making

Investment banking:

- Dealer-broker (dealing in securities for clients)
- Investing proprietary capital in securities

1936 – Commodity Exchange Act : Futures market is meant to be for physical hedgers. Position Limits are set for speculators (non-commercial users)

1960s – 1990s

The segregation between commercial and invest bank slowly eroded away as banks started to slowly re-merge by exploiting loopholes in legislation

Incentive essentially this : deposit-banking commercial banking with federal guarantee (moral hazard) provides cheap money for prop. trading

1974 - Commodity Futures Trading Commission (CFTC) is created

1960s – 1990s

Financial Institutions create synthetic derivatives in virtually every market, to bypass regulatory barriers. Fundamentally useful as they allow market participants to hedge risk

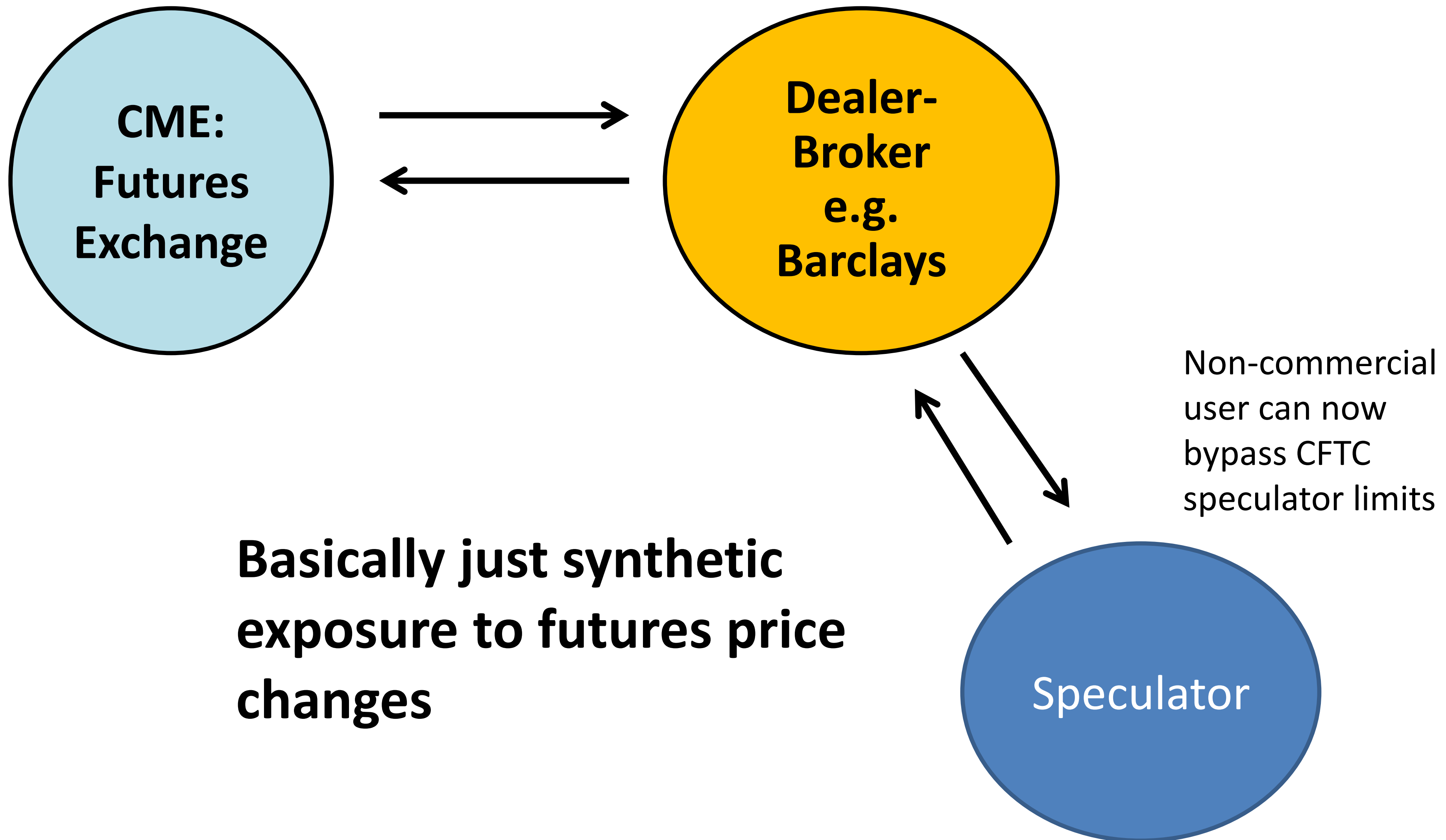
Examples:

- Currency non-deliverable forwards (NDFs) for countries where currency controls exist
- Interest rate swaps
- **Commodity swaps**

1981: Goldman Sachs buys J Aron – commodities broker

I-Banks were considered commercial users on futures exchanges. Commodity swaps allowed banks to sell commodity futures positions in size, bypassing CFTC speculator position limits

How a swap skirts regulations



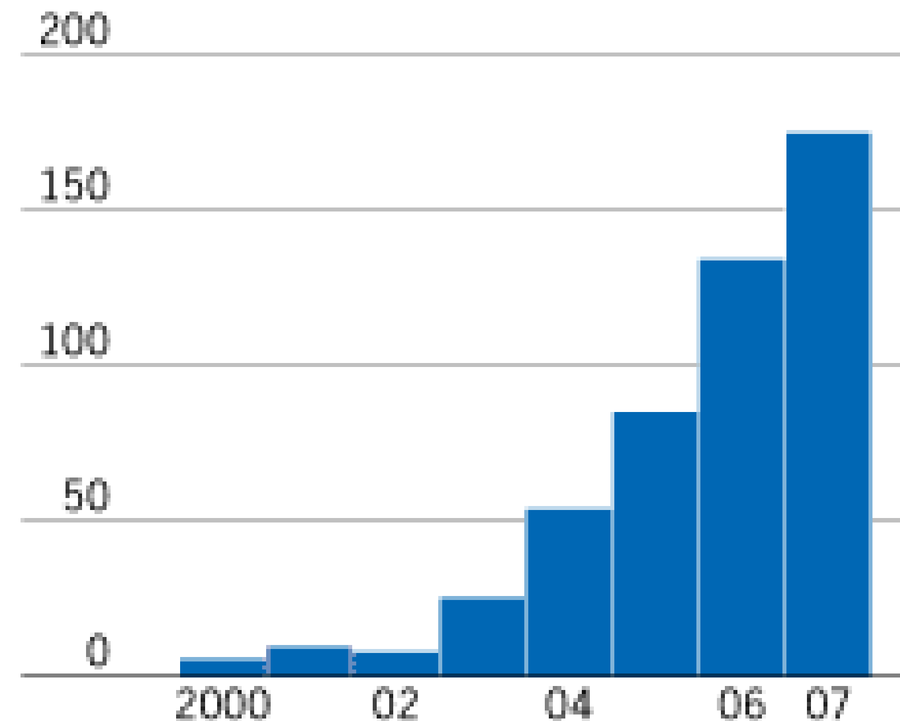
Commodity Futures Modernization Act (2000) - CFMA

Pre-2000: Inv. Banks traded swaps mostly outside US, like in **London**, did not dare to get too aggressive with swap positions – always implicit threat of CFTC, legally grey

CFMA: declared OTC derivatives like swaps outside jurisdiction of CFTC => essentially legalized gambling on futures markets. Swaps really took off

Commodity prices and Passive Investments 2000-2007

Commodity prices have risen as institutional investment has flowed in ...



2000s

Investment banks started creating investment products linked to commodity prices –

- Commodity mutual funds
- Commodity ETFs

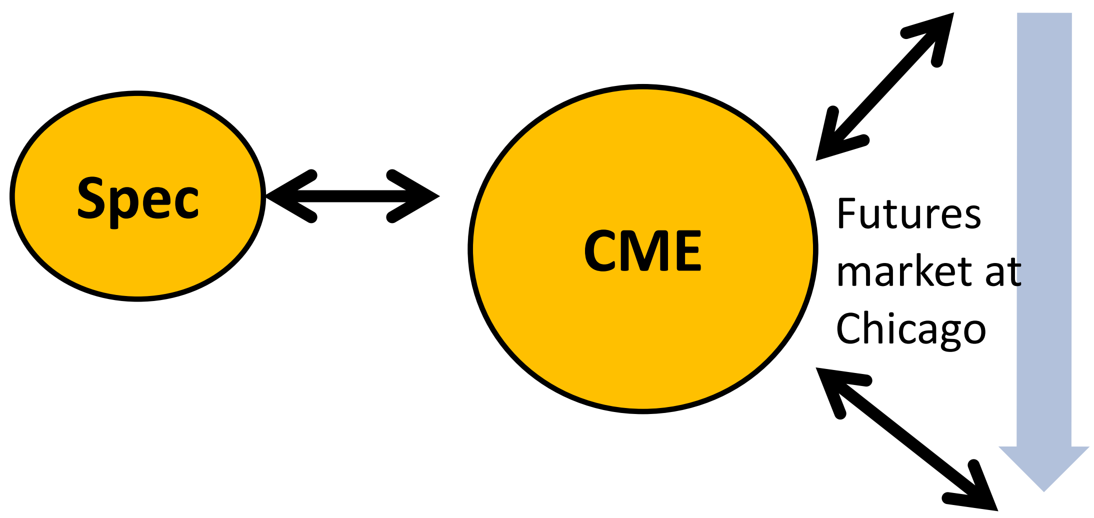
Dozens of commodity price indices sprung up.

BRIC demand was the best marketing brochure

By 2007 – commodities were a whole new 'asset-class' sold to endowments, pension funds, etc

HEALTHY MARKET

Mostly forward contracts

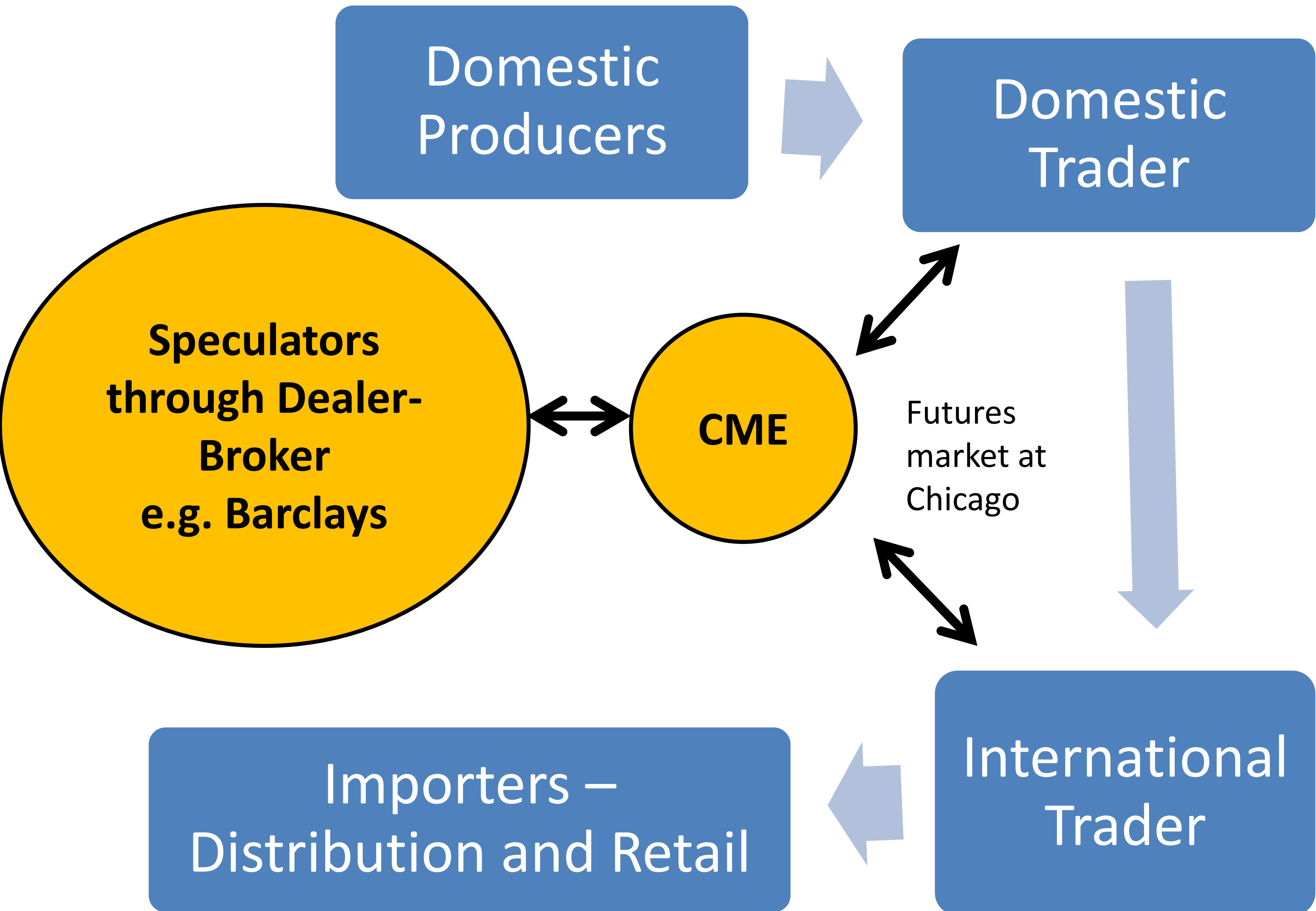


Traders will necessarily take positions on market prices:

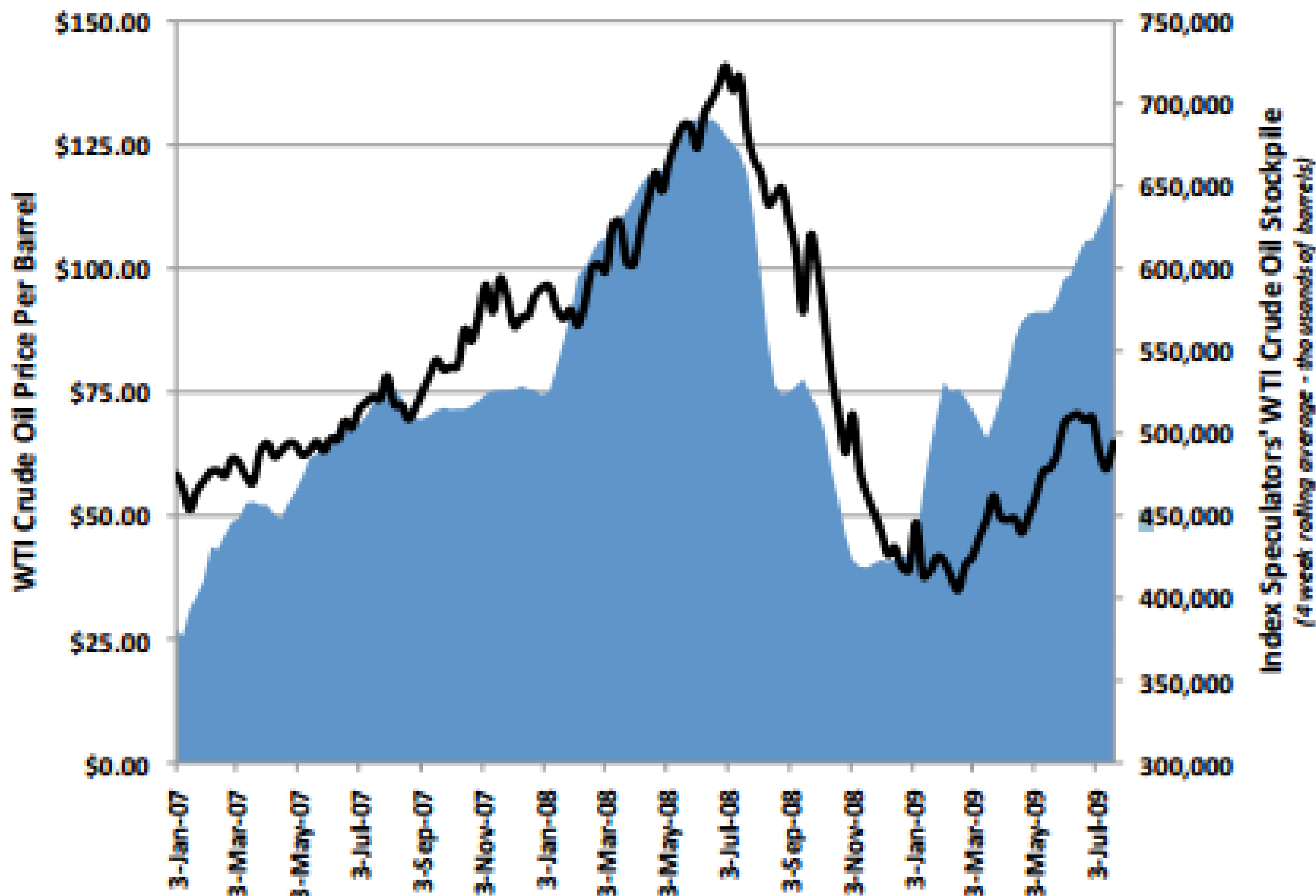
- **Part of market-making**
- **Goal to maximize spreads**

Mostly forward contracts

When Speculators overwhelm market



Oil Prices follow speculator flows



Food Commodities followed similar pattern and path

WTI CRUDE OIL BUBBLE TIMELINE

(From Michael Masters' Testimony to Congress 2009)

January 1, 2007 to January 1, 2008

- Index Speculators **push between $25 and $30 billion** into commodities derivatives
- Index Speculators buy between 130 and 150 million barrels of WTI Crude Oil derivatives
- WTI Crude Oil prices **rise 60%** from $60 to $95 per barrel

January 1, 2008 to July 1, 2008

- Index Speculators **push between $50 and $60 billion** into commodities derivatives
- Index Speculators buy between 145 and 165 million barrels of WTI Crude Oil derivatives
- WTI Crude Oil prices **rise 50%** from $95 to $140+ per barrel

July 1, 2008 to January 1, 2009*

- Index Speculators **pull between $60 and $80 billion** out of commodities derivatives
- Index Speculators sell between 230 and 260 million barrels of WTI Crude Oil derivatives
- WTI Crude Oil prices **fall over 70%** from $140 to $40 per barrel

January 1, 2009 to July 1, 2009

- Index Speculators **push between $40 and $50 billion** into commodities derivatives
- Index Speculators buy between 170 and 190 million barrels of WTI Crude Oil derivatives
- WTI Crude Oil prices **rise 75%** from $40 to $70 per barrel

Recent Regulatory Changes

EU

15 Jan 2014: sealed a deal to change regulations for financial markets to limit speculation on food

Reforms Markets in Financial Instruments Directive (MiFID)

- Curbs food speculation
- Limits high frequency trading
- Brings greater transparency

USA

2010: Frank-Dodd Act

- watered down version of 1933 Banking Act
- But expanded CFTC oversight to swaps

Jan 2014 :

Reuters - The U.S. Federal Reserve on Tuesday took a first formal step toward restricting the role of Wall Street banks in trading physical commodities, citing fears that a multibillion-dollar disaster could bring down a bank and imperil the stability of the financial system.

Other ‘offshore’ jurisdictions

Benefit from financial speculation, but do not pay consequences (producers and consumers in poor countries suffer)

London – continues to be ‘gambling’ capital, and center for ISDA agreements arbitration

HK, SG – continue to promote themselves as financial centers, and embrace all forms of derivatives trading in commodities

Under reg pressure and falling profits, banks have been exiting the commodities business

2012-13 :

UBS, Credit Agricole, Deutsche Bank all exit commodities

2013-14: Morgan Stanley and JP Morgan selling off commodity divisions

Barclays shrank division by 20%

Bank traders have been leaving en-mass to physical trading firms

"Apologies for the mass mail. I recently left Morgan Stanley to head up the M&A/ Investments at Puma Energy (Trafigura)." - 18 Mar

Physical trading continues to be immensely profitable

Spring 2013:

Cargill Trading Team in Singapore leaves to join Golden-Agri for **US$50 mil**

Physical Traders vs Banks (which is worse ?)

Physical traders are interested in wide spreads

Banks are interested in wide spreads **and** selling to every main street fool they can find

Interesting Reads on distortions in the Futures Markets

Read the testimonials of Michael Masters , an honest Hedge Fund Manager who fought for better markets:

- 2008: To the Committee on Homeland Security and Governmental Affairs, US Senate

http://www.hsgac.senate.gov/imo/media/doc/052008Masters.pdf?attempt=2

- 2009: To the CFTC

http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/hearing080509_masters.pdf

Conclusions

Speculative limits were imposed for good reason but largely meaningless under current international rules

Caveat Emptor – If you choose to trade derivatives with banks / trading firms make sure you know what you are doing

Global Trading Firms (both financial and non financial) will continue to have very strong influence on food prices, for better or worse

Commodity-Linked Financing: Using trade in commodities to secure loans

Not the same as financing commodities business

CHINA IMPORTER MARGINS

Olein = refined palm oil, ready for consumption
CPO = Crude Palm Oil
BMD = Bursa Malaysia Derivatives Exchange

Refining Cost ~ 40

NEGATIVE IMPORT MARGINS – PALM OIL WAS CHEAPER IN CHINA THAN IN S.E. ASIA, WHERE IT CAME FROM

(Dalian Olein - (BMD CPO +40)) Spread

(adjusted for fobbing costs, tax and freight)

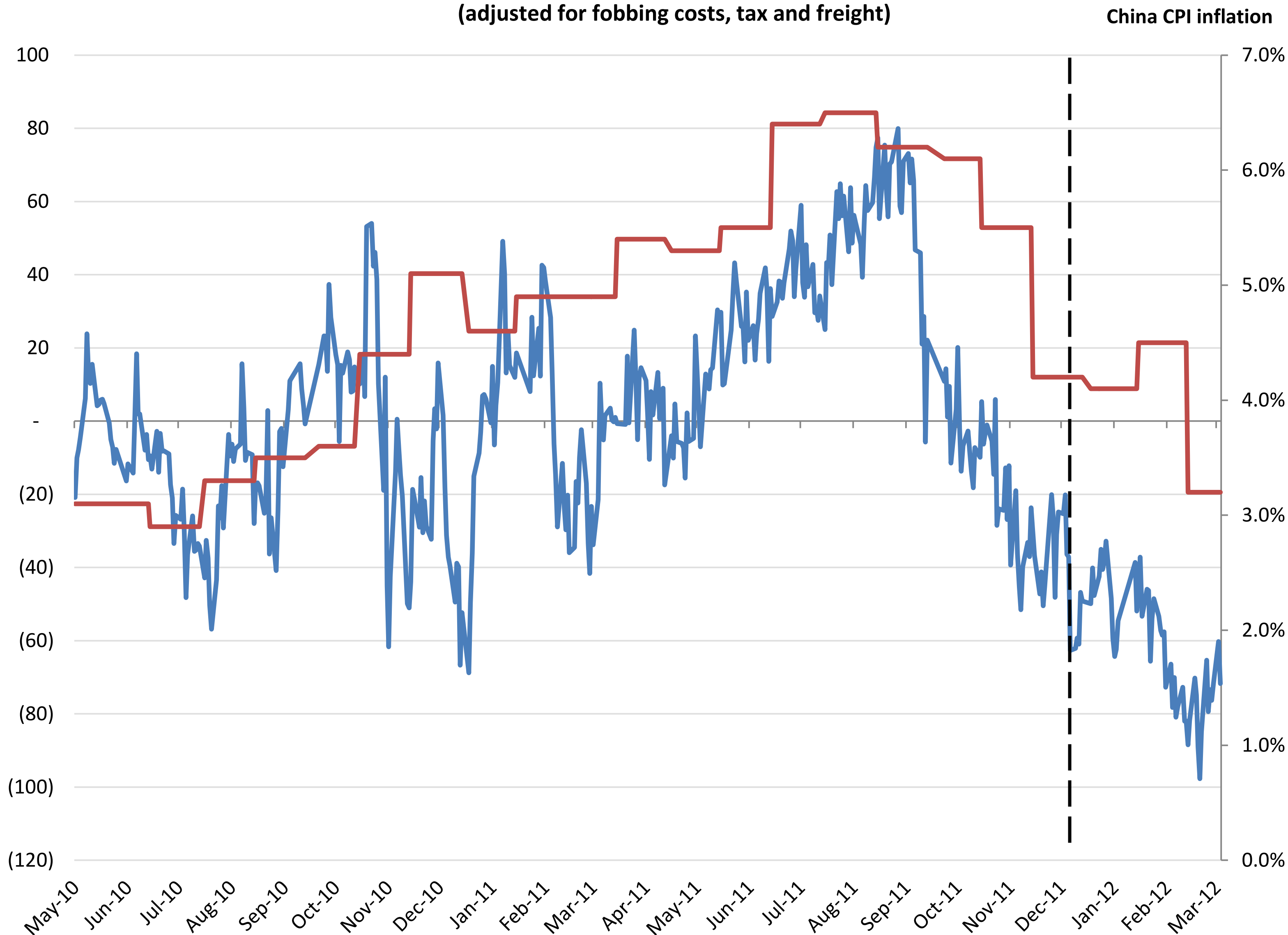
100
80
60
40
20
-
(20)
(40)
(60)
(80)
(100)
(120)

A = Dalian Olein adjusted = (Price - fobbing) / (1+import tax) / (1+VAT) / Fwd FX (USDCNY)
B = BMD CPO adjusted = (Price) / Fwd FX (USDMYR) + 40 (OLN premium to CPO)
C = Freight (US35/mt)

May-10 Jun-10 Jul-10 Aug-10 Sep-10 Oct-10 Nov-10 Dec-10 Jan-11 Feb-11 Mar-11 Apr-11 May-11 Jun-11 Jul-11 Aug-11 Sep-11 Oct-11 Nov-11 Dec-11 Jan-12 Feb-12 Mar-12

(Dalian Olein - BMD Olein) Spread vs. China CPI – why?

(adjusted for fobbing costs, tax and freight)



Credit Crunch in China

- Chinese Government controls credit in China through **4 State Owned Banks**.
- Has **bank lending quotas** as part of credit control efforts – directs capital to state enterprises, leaving other sectors credit-starved
- **Credit-starved sectors** include provincial governments and related real estate deals, SME sectors, etc.
- Loan quotas every year since 2010, creates a credit crunch in China **(black market rates >20%),** especially in the last qtr of each year
- All loans restricted except for one category: strategic commodities – **food**, metals, timber

Commodity-linked Financing

- Businesses import sensitive commodities paid through 12-18 mth letters of credit
- Commodities are sold instantly in domestic market for cash, at discount and loss
- Difference between cash price and imported price (a loss) amounts to effective ‘interest’
- Money raised goes to wherever economy has credit crunch:
  - Real estate development projects
  - Black-market lending

Goldman Says Chinese Commodity Financing May Unwind in 24 Months

18 Mar 2014: "Gold, copper and iron ore are most commonly used as collateral, followed by **soybeans**, **palm oil**, rubber, nickel, zinc and aluminum, the bank said."

http://www.bloomberg.com/news/2014-03-18/goldman-says-chinese-commodity-financing-may-unwind-in-24-months.html

Effects?

- Massive stockpiles of these commodities in China
- Can be argued that this keeps inflation low
- But are outbidding other countries' for these commodities
- Food commodities may be rotting in warehouses (like Thai Rice) with no real economic purpose
- Interested parties keep the trade flow going at any cost in order to siphon US Dollars out of China (via HK and SG)

How?
One way is they book trade Losses in China but book trade gains offshore