

PRICE FORMATION IN FINANCIALIZED COMMODITY MARKETS

The role of information

EMBARGO
The contents of this Publication
must not be quoted
summarized in the print, broadcast
or electronic media before
5 June 2011, 17:00 hours GMT



UNITED NATIONS



PRICE FORMATION IN FINANCIALIZED COMMODITY MARKETS: THE ROLE OF INFORMATION

Study prepared by the secretariat of the
United Nations Conference on Trade and Development



UNITED NATIONS
New York and Geneva, June 2011

Note

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

*

*

*

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

*

*

*

Material in this publication may be freely quoted or reprinted, but acknowledgement is requested, together with a reference to the document number. A copy of the publication containing the quotation or reprint should be sent to the Publications Assistant, Division on Globalization and Development Strategies, UNCTAD, Palais des Nations, CH-1211 Geneva 10.

UNITED NATIONS PUBLICATION

UNCTAD/GDS/2011/1

Copyright © United Nations, 2011
All rights reserved

Table of contents

	<i>Page</i>
<i>Abbreviations</i>	v
<i>Acknowledgements</i>	vi
<i>Executive summary</i>	vii
 1. MOTIVATION OF THIS STUDY	 1
2. PRICE FORMATION IN COMMODITY MARKETS	3
2.1. Information and commodity price formation	3
2.2. The role of futures exchanges and OTC markets in commodity price formation	6
3. RECENT EVOLUTION OF PRICES AND FUNDAMENTALS	9
3.1. Crude oil	9
3.2. Selected food commodities.....	10
4. FINANCIALIZATION OF COMMODITY PRICE FORMATION	13
4.1. Financialization: definition, motivation, size and instruments	13
4.2. Categories of market participants	18
4.3. What is problematic about financialization?	20
4.4. Herd behaviour and the limits of arbitrage	20
4.5. The price effects of the financialization of commodity markets	24
4.6. Herding and its effects in different markets	29
4.7. Commodity prices and world business cycles	34
5. FIELD SURVEY	37
5.1. Objectives	37
5.2. Choice of participants	37
5.3. Approach	38
5.4. Results	41
5.4.1. Physical traders	41
5.4.2. Financial players	45
5.4.3. Others	47
5.5. Summary.....	48
6. POLICY CONSIDERATIONS AND RECOMMENDATIONS	49
6.1. Improving transparency in physical commodity markets.....	50
6.2. Improving transparency in futures and OTC commodity markets	51
6.3. Tighter regulation of financial investors.....	52
6.4. Price stabilization schemes and other mechanisms	53
7. CONCLUSIONS	55
Annex	57
Notes	59
References	63
Glossary	67

List of tables

1	Leading exchanges for oil and agricultural commodity derivatives.....	8
2	Trader categories in the CFTC's Disaggregated Commitment of Traders reports	19
3	Simultaneous correlation between price and position changes, selected commodities and trader categories, July 2009–February 2011	28
4	Classification of interviewees	37
A.1	World production of biofuels.....	57

List of figures

1	Evolution of crude oil prices, 1980–2010	9
2	Evolution of grain prices, 1980–2010	10
3	Evolution of prices of selected soft commodities, 1980–2010.....	12
4	Futures and options contracts outstanding on commodity exchanges, December 1993–December 2010	15
5	Notional amount of outstanding over-the-counter commodity derivatives, December 1998–June 2010	15
6	Financial investments in commodities: assets under management, by product, 2005–2011	16
7	Financial investments in commodities and global GDP, 1998–2010	17
8	Financial investments in commodities and global oil production, 2001–2010	17
9	Different types of herd behaviour.....	21
10	Actual price developments and estimated price developments without index investors, selected commodities, 2006–2009.....	26
11	Actual and predicted crude oil prices, 1997–2008	27
12	Maize: prices and net long financial positions, by trader category, June 2006–February 2011	27
13	Crude oil: prices and net long financial positions, by trader category, June 2006–February 2011	28
14	Thirty-day rolling correlation between the WTI front month futures contract and the Australian dollar–United States dollar exchange rate, 1986–2010.....	30
15	Thirty-day rolling correlation between the WTI front month futures contract and the S&P 500, 1986–2010	30
16	Thirty-day rolling correlation between the DJ-UBS Agriculture Total Return Index and the United States dollar–Brazilian real exchange rate, 1992–2010.....	31
17	Thirty-day rolling correlation between the WTI front month futures contract and the United States dollar–Brazilian real exchange rate, 1992–2010.....	31
18	Relationship between the Brazilian real–Japanese yen exchange rate and selected commodity markets, August 2008–July 2010.....	32
19	Effects of announcement of employment data in the United States (rebased series), 3 December 2010.....	33
20	Dynamics of world industrial production after the peaks of four business cycles	34
21	Commodity prices and market indexes before and after the trough of September 1980	35
22	Commodity prices and market indexes before and after the trough of December 1982	35
23	Commodity prices and market indexes before and after the trough of December 2001	35
24	Commodity prices and market indexes before and after the trough of February 2009	35
A.1	Prices and net long financial positions, by trader category, selected commodities, June 2006–February 2011.....	58

Abbreviations

CBOT	Chicago Board of Trade
CFTC	Commodity Futures Trading Commission
CIT	commodity index traders
COT	commitments of traders
CPB	Central Planning Bureau Netherlands Bureau for Economic Policy Analysis
DCOT	disaggregated commitments of traders
DJ-UBSCI	Dow-Jones-Union Bank of Switzerland Commodity Index
ECB	European Central Bank
EIA	Energy Information Agency
EMH	efficient market hypothesis
ETF	exchange-traded fund
ETN	exchange-traded note
ETP	exchange-traded product
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
HFT	high-frequency trading
ICE	Intercontinental Exchange
IEA	International Energy Agency
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
ISO	International Sugar Organization
JODI	Joint Organisations Data Initiative
LIFFE	London International Financial Futures Exchange
NYMEX	New York Mercantile Exchange
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
OTC	over the counter
PMPU	producers, merchants, processors, users
S&P GSCI	Standard & Poor's Goldman Sachs Commodity Index
UNCTAD	United Nations Conference on Trade and Development
USDA	United States Department of Agriculture
WTI	West Texas Intermediate

