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**FUNCTIONING AND TRANSPARENCY OF THE TERMINAL MARKETS FOR COCOA**

*AN OVERVIEW AND ANALYSIS OF RECENT EVENTS ON  
THE LONDON TERMINAL MARKET*

## FUNCTIONING AND TRANSPARENCY OF THE TERMINAL MARKETS FOR COCOA

### INTRODUCTION

1. The terminal markets for cocoa in London and New York play a vital role in the formation of prices for physical cocoa throughout the world. Indeed, in this respect, London and New York function as the benchmark for prices paid. Hence when prices in the two terminal markets increase, prices paid to farmers increase. When prices in the terminal markets fall, traders immediately react by paying lower prices to farmers. In addition, the terminal markets provide a mechanism for market participants to hedge against price risks, when they are long or short in the physical market.

2. For these reasons, it is of extreme importance that the terminal markets are efficient and competitive markets. The issues related to efficiency and competitiveness have therefore been dealt with in some ICCO documents, most recently in 2007 (see document MC/11/4). The general findings of these investigations were that the price discovery mechanism in the centralized terminal market exchanges is efficient and that futures prices are unbiased forecasts of spot prices. An analysis on the impact of speculators in the New York market indicated that non-commercial traders (read: speculators) do not exacerbate the volatility of cocoa futures contract prices. On the contrary, their trade activities seem to have a stabilizing effect.

3. However, the above-mentioned study cautioned that these findings on the functioning of the New York market were based on a limited data set, as the market regulator had refused to give the ICCO access to a wider data set. More importantly, it was emphasized that a similar study could not be conducted for the London market, as this market does not disclose any information on the trading positions of its market participants. Recent events on the London market, which caused serious concerns about market transparency and efficiency, appear to have fully justified such caution. Against a backdrop of a shortage of certified cocoa on the London terminal market, a trading house/hedge fund bought a large volume of cocoa futures contracts with expiration in July 2010. This volume was so large that this trader *de facto* controlled the market of the July futures contract. Later, as the delivery time of the July 2010 cocoa futures contract was approaching (15 July), traders who had previously sold this contract had to fulfil their contractual obligations with the London terminal market. They could have done so either by delivering certified cocoa to the terminal market or by purchasing cocoa futures contracts with delivery in July 2010.

4. However, there was insufficient cocoa in the spot market available for delivery to the terminal market. As a result, many shorts were forced to settle their contracts in cash with the longs. But, as one trading house controlled a large share of the July 2010 long positions, the trading house extracted profits from the shorts by bidding up the settlement price. That is the reason why this market manipulation is called a “squeeze”.

5. The realization of such market manipulation required the purchase of a very large volume of futures contracts. However, only a part of these long futures contracts was used to squeeze the shorts, that is, was exchanged with the shorts at an inflated price. Of the remaining volume, amounting to 240,100 tonnes, the manipulating company took delivery on 15 July 2010.

6. Subsequently, the company taking delivery of this large amount of cocoa would have to dispose of this large volume of certified cocoa. However, they would face the risk that cocoa prices would fall. In consequence, to offset this risk, they sold a very large volume of cocoa futures contracts

on the London market, with delivery against the September 2010 contract. This hedge strategy enabled the company to lock in a profit, on top of the profit realized through the squeeze, equal to the difference between the selling price of the September 2010 contract and the purchasing price of the July 2010 contract.

7. As a result of these events, 16 market participants operating on the London market wrote a letter of complaint to LIFFE, copied to the UK Financial Services Authority about this evidently non-competitive behaviour. LIFFE replied that everything had been done in accordance with the rules governing the exchange of cocoa futures contracts in London.

8. These unprecedented events have fuelled concerns among market participants about the transparency and efficiency of the London cocoa futures market. The important questions relate to the efficiency and functioning of the market, not the profit made by the “squeeze”. How could one market participant (or group of market participants) build up a large long position on the London market, without other market participants knowing? How could other market participants (i.e. those committed to make a delivery of the commodity, or “shorts”) be surprised by this event? These questions call for a consideration of the implications of current regulations (or lack of regulations) underlying trading in cocoa futures contracts on the London market. Furthermore, what were and are the repercussions of the “squeeze” for the market and for the different groups of market participants? Finally, how could such incidents like a “squeeze” be prevented, or at least attenuated, in future?

9. The present document starts, after the introduction, with a section containing basic information on the role and functioning of terminal markets. This is followed by a section with a more detailed analysis of the recent squeeze on the market. Subsequently, the document presents briefly the impact of the squeeze. Finally, the document concludes with a section on possible ways to prevent such events from re-occurring in the future.

## **COCOA FUTURES CONTRACTS, THEIR MARKETS AND TRADERS**

10. A cocoa futures contract is a commitment to make or to take delivery of a specific quantity and quality of cocoa at a predetermined place and time in the future. All terms of such a contract are standardized and set in advance. The party committed to take delivery of the commodity is called the “long”, while the party committed to make such delivery is the “short”.

11. The Intercontinental Exchange (ICE) in New York, formerly known as the New York Board of Trade (NYBOT), and the London Financial Futures and Options Exchange (NYSE LIFFE) are the only two exchanges in the world which trade in cocoa futures contracts. Cocoa futures contracts on both terminal markets call for delivery of cocoa beans in lots of 10 tonnes each, in the months of March, May, July, September and December and are exchanged through an electronic trading system.

12. However, the ICE and NYSE LIFFE cocoa futures prices cannot be compared as they stand, as they refer to two different deliverable growths. For example, deliverable cocoas from Malaysia and Indonesia are priced at par on the ICE market<sup>1</sup>. However, the cocoas from West Africa, Western Samoa, Trinidad and Tobago, Grenada and Jamaica are priced at par on the NYSE LIFFE

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<sup>1</sup> As a result, all other origins receive a premium on ICE. For example, bulk cocoa from West Africa receives a premium of \$150 per tonne, while the one from South America (except Haiti) receives a premium of \$80 per tonne.

cocoa futures market<sup>2</sup>. So, if a premium of \$150 per tonne is added to the New York cocoa futures prices, these prices are comparable to the London prices.

13. Consequently, under normal market conditions, London futures prices would be expected to be higher than New York prices, but not by more than \$150 per tonne. For example, average price spreads between London and New York were \$121 per tonne, \$76 per tonne and \$101 per tonne respectively in 2006/07, 2007/08 and 2008/09.

14. If these price differences were well above \$150, it would be profitable to take cocoa delivery from one terminal market and to deliver it to the other terminal market. Of course, it would be necessary to take account of freight rates, loading and unloading costs, as well as insurance costs to determine exactly the size and sign of the arbitrage spreads.

15. A price difference (i.e. spread) among subsequent delivery months is usually observed in the futures market. A spread is said to be **contango** or **positive carrying charge**, when prices are progressively higher in the succeeding delivery months than in nearest delivery month. This is the normal situation. In such circumstances, futures markets provide economic incentives to buy and store cocoa, as the contango provides for the carrying costs. On the other hand, a spread is said to be **backwardation** or **negative carrying charge**, when prices of more distant delivery months are lower than those of nearer delivery months. Backwardation in the cocoa futures market is unusual. A situation of backwardation indicates the expectation/existence of a short-term supply disruption (or a short-term excess of demand) in the spot market when the contract is the next one to expire. As a result, a situation of backwardation provides economic incentives to whoever holds cocoa stocks to sell them straightaway.

16. On the ICE market, cocoa futures contracts are exchanged from 8:00 am to 11:50 am Eastern Standard Time (EST) every business day. The contracts are priced in US dollars (\$US) with a minimum price movement of one Dollar per tonne and no limit on daily price movements. Spot delivery is accepted at licensed warehouses in the Ports of New York District, Delaware River Port District, the Port of Hampton Roads, as well as at the ports of Albany and Baltimore.

17. On the NYSE LIFFE, cocoa futures contracts are exchanged from 9:30 a.m. to 4.50 p.m. Greenwich Mean Time (GMT). Futures contracts are priced in Pounds Sterling (£) with a minimum price movement of one Pound per tonne and no limit on daily price movements. NYSE LIFFE accepts delivery at licensed warehouses located in Amsterdam and Rotterdam in the Netherlands, Antwerp in Belgium, Bremen and Hamburg in Germany, Le Havre in France and Felixstowe, Humberside, Liverpool, London and Teesside in the United Kingdom.

18. Both the ICE and the NYSE LIFFE exchanges are essential for the price discovery mechanism of cocoa. In fact, they provide the facility and the trading platform that brings buyers and sellers together. Moreover, they establish and enforce rules to ensure that trading takes place in an open and competitive environment. For this reason, all bids and offers must be made through the exchange's "clearinghouse". As a result, the exchange's clearinghouse is acting as the buyer to all sellers and the seller to all buyers.

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<sup>2</sup> As a result, all other origins receive a discount on NYSE LIFFE. For example, bulk cocoa from Sao Tome and Principe, Sri Lanka and South America receives a discount of £25 per tonne, the one from Brazil, Ecuador and Papua New Guinea a discount of £50 per tonne, the one from Malaysia a discount of £75 per tonne, and the one from any other origin a discount of £100 per tonne.

19. To enter into a transaction with the exchange's clearinghouse, a broker must deposit a specified amount of money to guarantee his or her commitment to the terms of the contract. This money is called "initial margin", and is a small proportion (i.e. two to 10 per cent) of the total value of the contract. Once a contract is open, the position is "marked to the market" daily. If the futures position loses value (i.e., if the market moves against it, in circumstances when the trader is "long" and the market goes down), the amount of money in the margin account will decline accordingly. For example, if the price of cocoa declines by 1\$ per tonne or 10\$ per contract, this amount is subtracted from the accounts of all buyers and added to the accounts of all sellers. If the amount of money in the margin account falls below the specified maintenance margin (which is set at a level less than or equal to the initial margin), the futures trader will be required to post additional variation margin to bring the account up to the initial margin level. On the other hand, if the futures position generates a profit, these profits will be added to the margin account. It is worth noting that, while the initial margin is small, a trader with a large and consistently losing position may have to tie up significant volumes of cash to maintain the margin.

20. Volume and open interest are the two most frequently cited statistics with reference to the trading activity of a futures contract. Each unit of volume represents a contract traded. When a trader buys a contract and another trader sells that same contract, the transaction is recorded as one contract being traded. Open interest refers to the number of futures positions that have not been closed out, either through offset or delivery. To illustrate this, if a trader buys fifteen contracts and then sells ten of them back to the market before the end of the trading day, his trading activity will add twenty-five contracts to the day's total volume. Since five of the contracts were not offset, open interest would change by five contracts as a result of his activity.

21. Futures market participants fall into two general categories: commercial and non-commercial traders. Commercial traders trade in cocoa futures contracts to avoid or to reduce a possible loss in the cash market by making counterbalancing investments on cocoa futures markets; they are hedging their positions in the physical market. Non-commercial traders do not produce or use cocoa, but risk their own capital by trading cocoa futures contracts in the hope of making a profit on price changes.

22. The risk shifting function of futures markets, i.e., bringing together hedgers and speculators, brings tangible economic benefits to cocoa producers, exporters and processors. In fact, if cocoa futures markets did not exist, hedgers of the world cocoa economy would be required to hold expensive equity capital to bear the price risk. This would occur as, if the market turned against them, they would need some capital to compensate for the accrued losses.

23. While commercial participants in cocoa futures markets are motivated by the risk shifting function, non-commercial participants hold positions in the futures markets because they believe they can anticipate price developments on the cocoa futures markets and hence make a profit. Since the buying and selling decisions of speculators are driven by research and analysis on forward market fundamentals, it is said that their trading activity brings new information onto the futures markets. Nevertheless, the impact of speculators on futures cocoa prices will depend on the market opinion of those willing to be counterparty in these transactions. "For every "long", there is a "short", for everyone who thinks the price is going up, there is someone who thinks it is going down, and for

everyone who trades with the flow of the market, there is someone trading against it.” (Hieronymus, 1977, p.302)<sup>3</sup>.

## THE SQUEEZE OF THE JULY 2010 COCOA FUTURES CONTRACT

24. A definition of a squeeze on the futures market reads as follows: “In a **market squeeze**, a trader, holding large long positions, achieves effective control over the price of a futures contract due to disruption in the supply of cash commodity. The manipulative part of a squeeze arises when a trader uses this circumstance to create artificially high prices. The disruption that creates the squeeze need not to be due to actions of the controlling trader, but might originate from other natural sources, such as the weather”. (Kolb and Overdahl, 2006, pag.80)<sup>4</sup>.

25. The definition implies that the holder of the large long futures position extracts profits from the shorts, where the manipulating party exploits the existing shortage of physical supply. The manipulating party creates artificially high prices, thus squeezing the shorts. In more simple language, a definition of a squeeze would read as follows: a **squeeze** consists of non-competitive behaviour arising in a commodity futures market when a trader acquires a large long position on the futures market to deliberately exploit an expected disruption in the physical supply at the expense of short hedgers and short speculators.

26. To shed more light on the events which occurred in April/July 2010 on the London cocoa futures market, it is warranted to consider the following questions:

- What made the July 2010 cocoa futures contract prone to a squeeze?
- When did the market manipulator enter onto the London cocoa futures market?
- How could the market manipulator squeeze the sellers of the July 2010 cocoa futures contracts?  
and
- When and how did the market manipulator exited from the market?

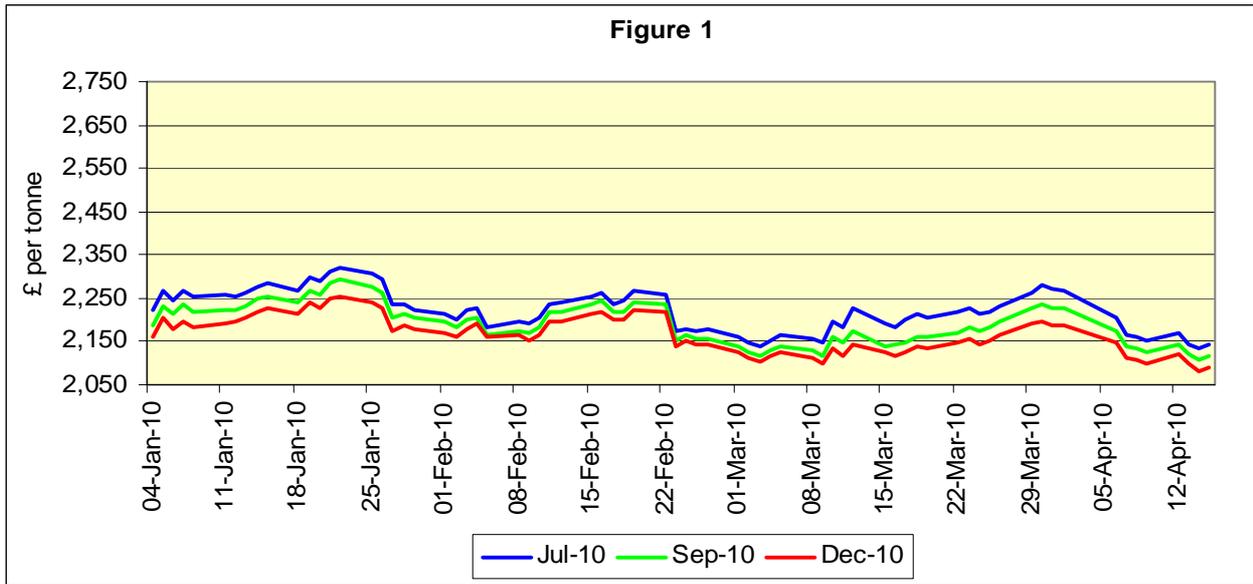
## WHAT MADE THE JULY 2010 COCOA FUTURES CONTRACT PRONE TO A SQUEEZE

27. Already in the early part of 2010, both July 2010 and the September 2010 cocoa futures contracts were trading with a premium over deferred contracts (**Figure 1**), in other words, a situation of backwardation prevailed. The prices of these contracts represented the consensus reached by market participants on the fundamentals of the forward cocoa market. As a result, the backwardation of both the July and September 2010 contracts indicated the expectation of a shortage of cocoa in the second half of the 2009/2010 mid-crop.

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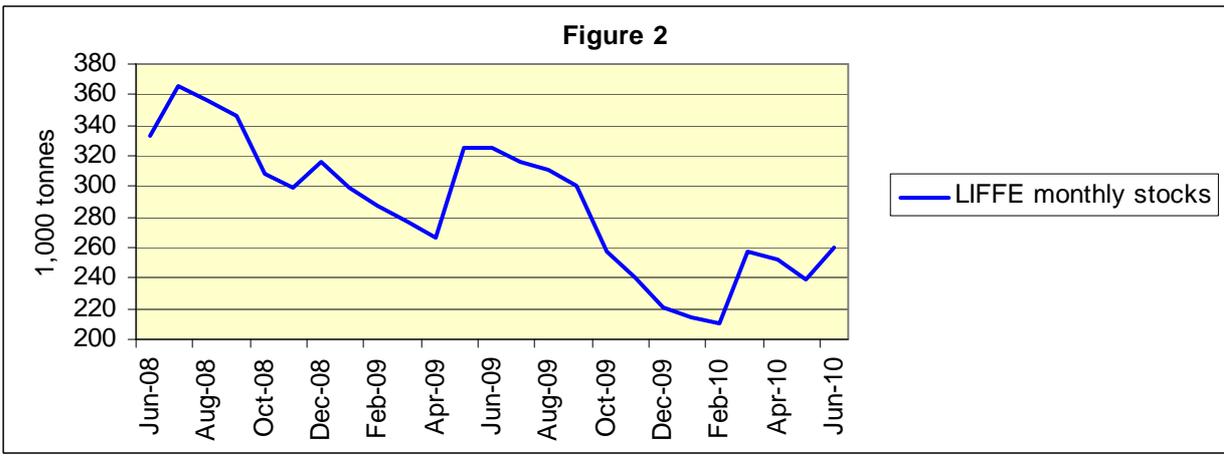
<sup>3</sup> Hieronymus (1977). *Economics of futures trading for commercial and personal profit*. Commodity Research Bureau. New York, NY.

<sup>4</sup> Kolb, R, and Overdahl, J. A. (2006). *Understanding Futures Markets*. Blackwell Publishing

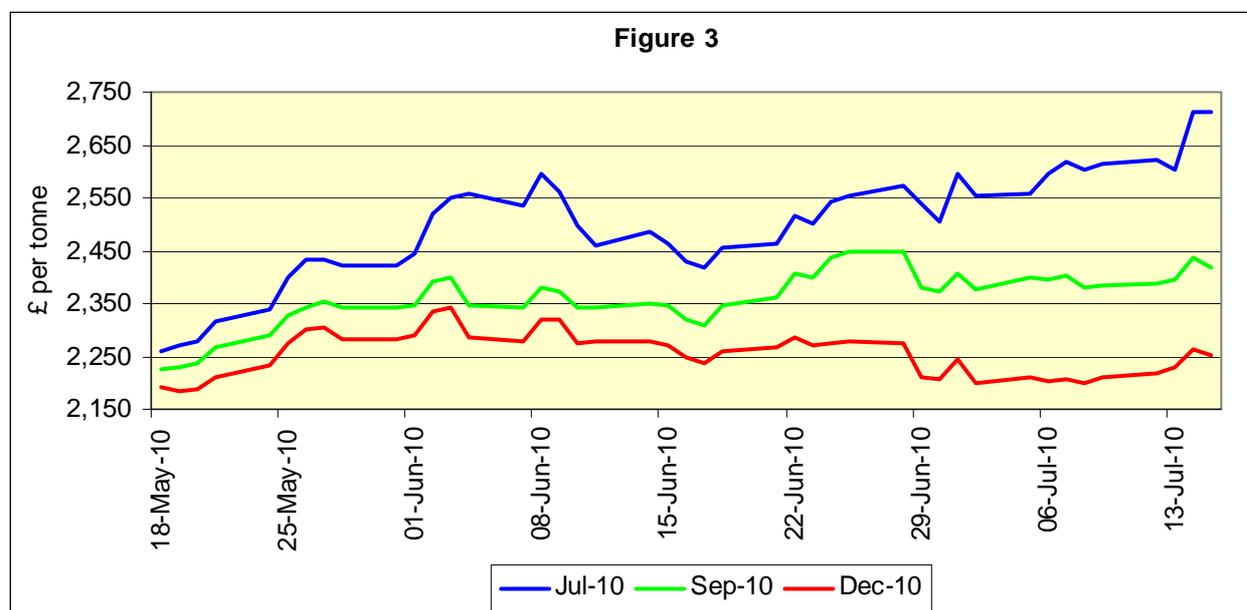


28. This expectation was supported by many facts. Firstly, many cocoa market commentators forecasted a supply deficit for 2009/2010, the third in the past four crop years. Secondly, there was considerable uncertainty in relation to the volume of cocoa supply from Côte d'Ivoire, as some commentators indicated this country had already reached its maximum production capacity and were expecting a decline in its production levels. Thirdly, during the second quarter of 2009/2010, grindings figures were unexpectedly revised upwards, indicating an increase in demand. Hence there was strong evidence suggesting that the size of the 2009/2010 mid crop could not meet the increasing demand for cocoa.

29. The fear of a disruption in cocoa supplies was later exacerbated by news of the declining size of certified stocks on NYSE LIFFE which reached a level of 240,000 tonnes in May 2010 (**Figure 2**).



30. As a result, the premium of the July 2010 futures contract over deferred contracts started to rally from the middle of May 2010, while the premium of the September 2010 contract over the December 2010 contract started to rally from the second half of June 2010 (**Figure 3**).



31. All these facts strongly indicated the expectation of disruption in cocoa supply for immediate delivery during the second half of the 2009/2010 mid crop, due to a lack of certified cocoa for immediate delivery on the spot market.

32. These circumstances made the July 2010 and September 2010 cocoa futures contracts prone to a potential squeeze. In fact, any market participant wishing to acquire a dominant position in the futures market would need less money than otherwise would have been the case.

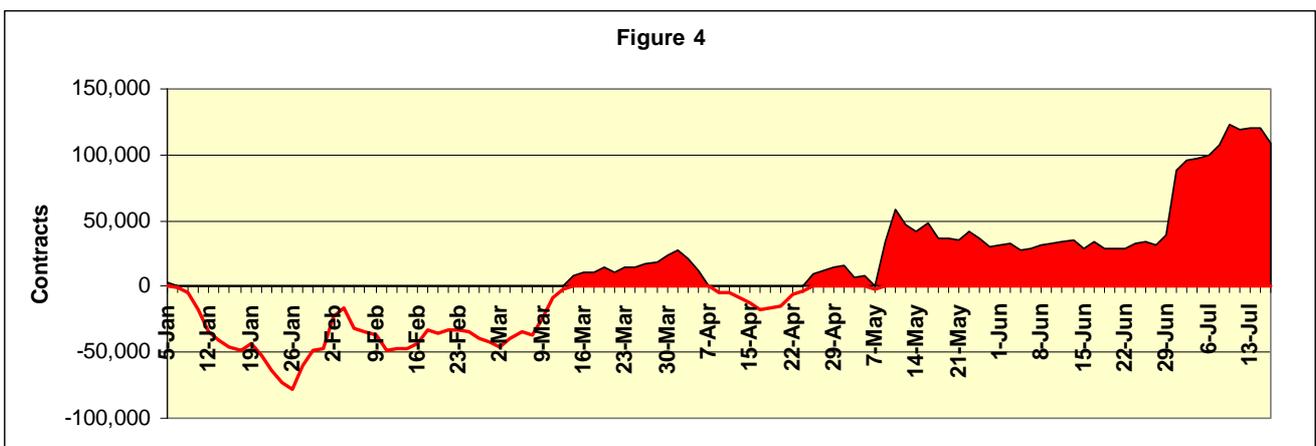
33. As the news of a possible disruption in cocoa supply was in the public domain and available to all cocoa market participants, **the short sellers of the July 2010 cocoa futures contracts were short-sighted**, as they placed themselves in an extremely vulnerable position (i.e. to be squeezed). In fact, they could have settled earlier their position on the July 2010 contract and searched for a more suitable risk management tool. Alternatively, if they had cocoa stocks, they could have had them certified in preparation for fulfilling their delivery obligations to avoid the squeeze.

#### **A MARKET MANIPULATOR ENTERS ONTO THE JULY 2010 COCOA FUTURES CONTRACT**

34. If the London cocoa futures market had disclosed trading information on its market participants, as the New York cocoa futures markets did, any attempt to squeeze the futures market would have been identified at its inception. In fact, the New York's Commitment of Trader (COT) report publishes not only the number of long (i.e. bought) and short (i.e. sold) unsettled contracts broken down by speculators and hedgers, but also the open interest (both long and short) held by the four largest and eight largest speculators and hedgers on the market. Hence in the case of the July 2010 squeeze, historical data on the long open interest held by the four largest traders would have provided unambiguously earlier warnings on the accumulation of a very large long position in the hands of few traders.

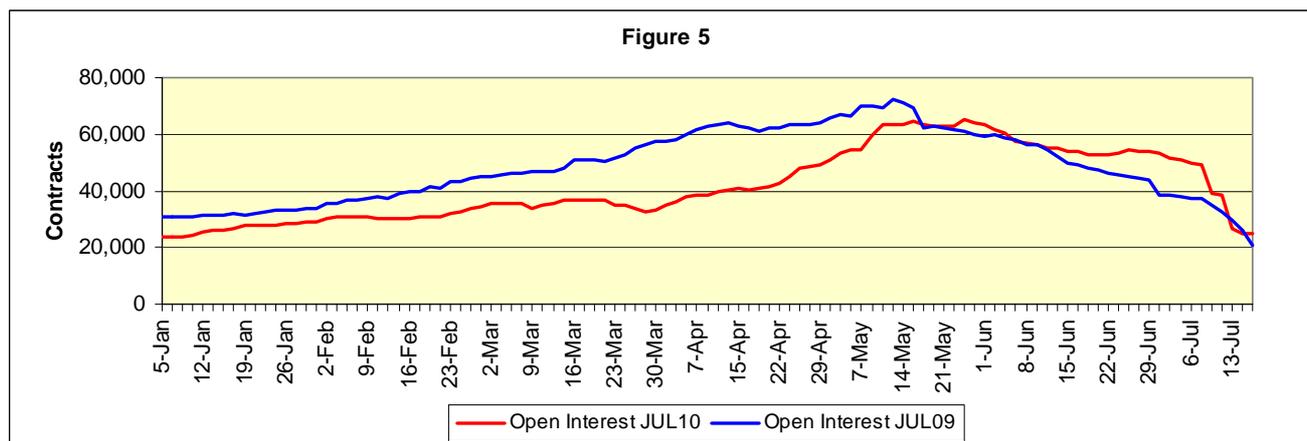
35. Unfortunately, the London futures market does not provide any information on its market participants. Hence it is extremely difficult, if it is not impossible, to identify explicitly and directly a dominant position. Nevertheless, the comparison of volume and open interest of the July 2010 and July 2009 contracts, matching their time left before expiration<sup>5</sup> can provide useful insights.

36. **Figure 4** shows the accumulated volume difference of the July 2010 and July 2009 cocoa futures contracts on the London market. Contracts have been matched so that they have the same number of days left before expiration. If the trading volumes of the July 2009 contract were roughly comparable with those of the July 2010 contract, their accumulated difference would have randomly wandered around the value zero. However, the presence of a systematic trend in their accumulated difference from the middle of April is an indication of a rapid increase in trading activities.



37. **Figure 5** compares the number of unsettled contracts (i.e. open interest) of the July 2010 and July 2009 cocoa futures contracts in London. Contracts have been matched so that they have the same number of days left before expiration. The July 2010 contract had an open interest lower than the July 2009 contract in the period preceding their corresponding mid-crops. However, the July 2010 contract gained momentum on 1 April and caught up with the July 2009 open interest on 19 May.

<sup>5</sup> For example, the volume of the July 2010 cocoa futures contract on January 5 2010 has been matched with the volume of the July 2009 contracts on January 5 2009; both contracts are 191 days away from their expiration.



38. Combining the evidence from **Figures 4 and 5**, it emerges clearly that a large number of cocoa futures contracts were created from the middle of April to the middle of May. However, it is not possible to evaluate whether these new unsettled positions were on the short or the long side of the market. Furthermore, it is not possible to ascertain whether these new unsettled positions were created by a few players or by many players. Only the analysis of data from a Commitment of Traders report could have addressed these issues.

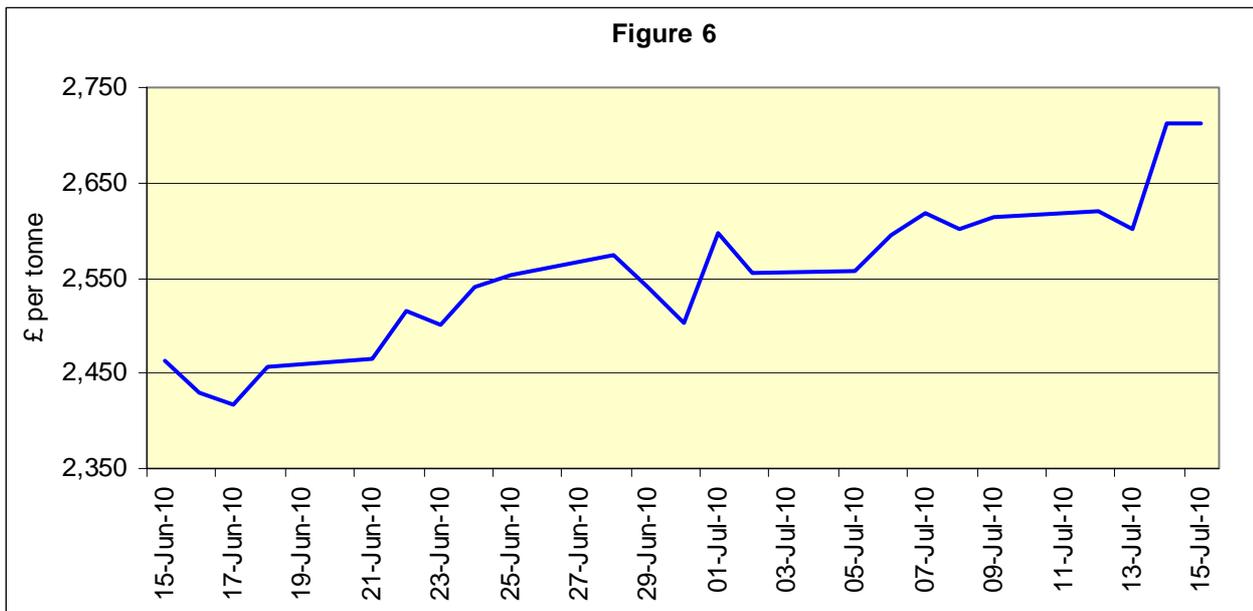
39. Nevertheless, considering that a request for delivery of 240,100 tonnes (i.e. 24,010 contracts) was made later on 15 July 2010, it can be deduced that the increasing trading activities in the July 2010 contract and its rising open interest were due to the acquisition of a large long position by one sole trader. Furthermore, it can be deduced that these contracts were bought at an average weighted price of around £ 2,300 per tonne. Finally, it is worth noting that the manipulator had to buy much more than 24,010 futures contracts to exert some form of control on the market.

#### **THE SQUEEZE ON THE SELLER OF THE JULY 2010 FUTURES CONTRACT**

40. The previous sections have established two facts. **Firstly**, there was a shortage of certified cocoa during the 2009/2010 mid-crop, which was more than originally expected. **Secondly**, a trader had acquired a very large volume of the July 2010 cocoa futures contracts before the middle of May 2010.

41. As the delivery time of the July 2010 cocoa futures contract (i.e. 15 July) was approaching, traders who previously sold this contract could fulfil their contractual obligations either by delivering certified cocoa to the London terminal market or by buying cocoa contracts with delivery in July 2010.

42. Unfortunately, there was insufficient cocoa on the spot market available for delivery on the terminal market. As a result, many shorts were forced to settle their contracts in cash with the longs. However, as one sole trader controlled a large share of the July 2010 long positions, he extracted profit from the shorts by bidding up the settlement price. This is the reason why this market manipulation is called “squeeze”. The artificial price increase of the July 2010 contract already started to become evident one month before the squeeze (**Figure 6**) and it is estimated that cocoa futures prices increased by approximately six per cent more than otherwise would have been the case.

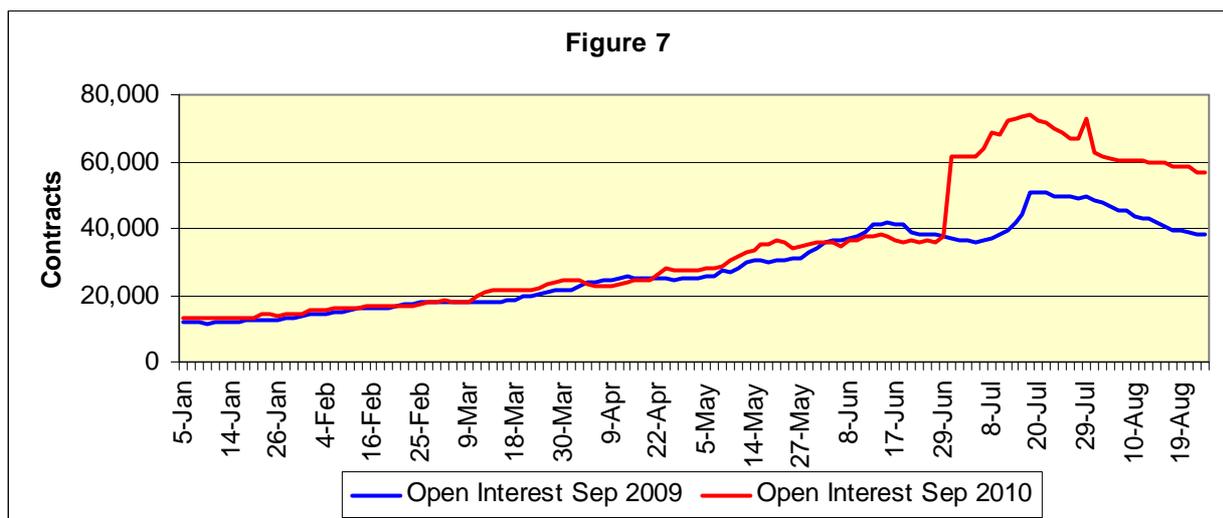


**THE MARKET MANIPULATOR EXITS FROM THE JULY 2010 FUTURES CONTRACT**

43. The realization of a squeeze on the July 2010 contract required the purchase of a very large volume of futures contracts. However, only part of this large volume was used to squeeze the shorts, that is, was settled with the shorts at an inflated price. Of the remaining volume, the manipulator took delivery at its expiration on 15 July 2010.

44. Subsequently, the manipulator had to dispose of 240,100 tonnes of certified cocoa. However, the company holding these stocks could not sell them all at once. If it had done so, cocoa prices would have plunged and profits would be lost.

45. The company executing the squeeze of the July 2010 cocoa futures contract was, of course, well aware of all these issues and had therefore planned its exit strategy well ahead. **Figure 7** compares the number of unsettled contracts of the September 2010 and September 2009 cocoa futures contracts on the London market. Contracts have been matched so that they have the same number of days left before expiration. An unprecedented jump in the open interest of the September 2010 contract was observed on 30 June 2010 (i.e. one day before the delivery notice of the July 2010 contract). In particular, the number of unsettled cocoa futures contracts increased from 37,827 on 29 June 29 to 61,548 contracts on 30 June, meaning that 23,721 new contracts were created.



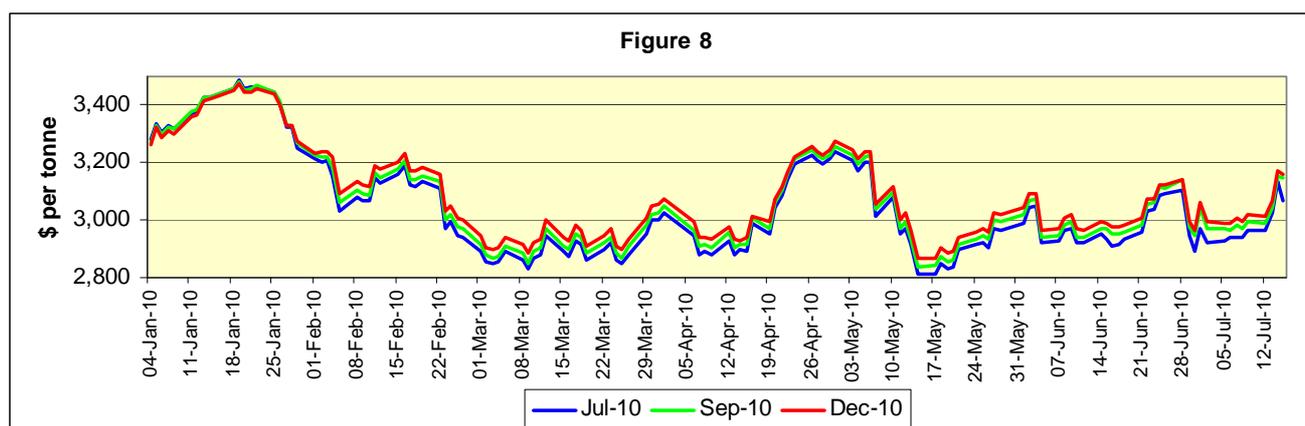
46. However, without data such as a Commitment of Traders report, it is not possible to ascertain whether these new unsettled positions were created by a few players or by many players and whether they were long or short. Nevertheless, there are strong indications to infer that the company executing the squeeze was behind these trading activities. Indeed, it can be deduced that the company sold more than 20,000 contracts with delivery in September 2010. The September 2010 cocoa futures contracts were sold at £ 2,374 per tonne, whereas the July 2010 contracts were bought at an average price of around £ 2,300 per tonne. Hence the company locked in a profit of more than £ 70 per hedged tonne. This was only one part of the profit deriving from this non-competitive behaviour. The other part was coming from settlement of the July 2010 contracts at inflated prices.

### IMPACT OF THE SQUEEZE ON THE WORLD COCOA MARKET

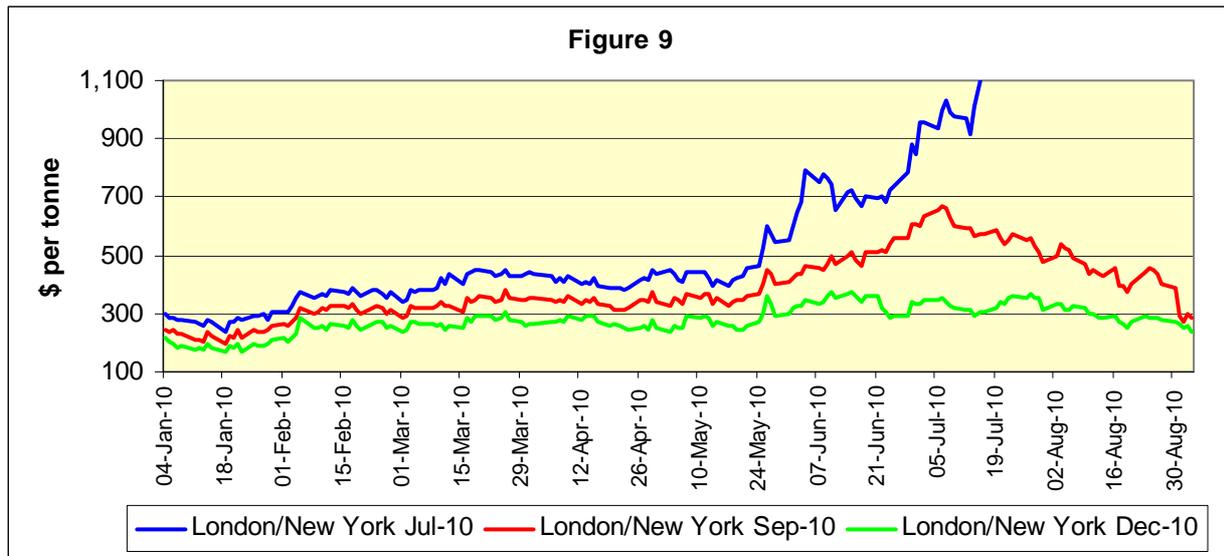
47. The squeeze of the July 2010 cocoa futures contract on the London market created financial problems for many cocoa stakeholders who routinely use the NYSE LIFFE to hedge their price risks. It is estimated that, as a result of the squeeze, the price of the July 2010 contract increased during the period of non-competitive behaviour by approximately six per cent more than would otherwise have been the case. As a result, hedgers who were short on the July 2010 contract faced additional hedging costs of about £150 per tonne. On the other hand, traders who were long on the July 2010 contract benefited to the same extent from this artificial price increase. In this connection, it is worth recalling that the company executing the squeeze held most of these long positions.

48. The most important question in this respect is whether the recent squeeze has done any lasting damage to the London market as a place to hedge against price risk. Some damage has probably been done, which would make cocoa trading more expensive and have a negative impact on the world cocoa economy. However, it is hard to tell whether there will be any lasting damage. That will, at least to a certain extent, depend on the reaction of the management of the market in terms of market regulation (see below).

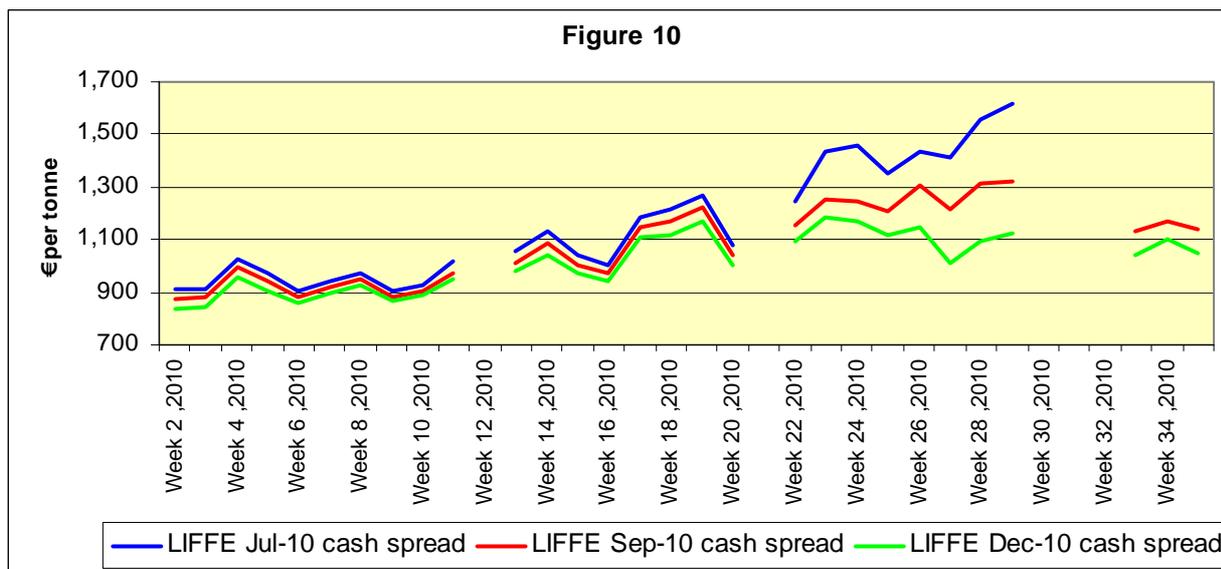
49. In addition to these direct costs, the squeeze of the July 2010 contract “tainted” the price discovery function of the London cocoa futures market. Indeed, during the build-up to the squeeze, there was a progressive misalignment of London prices *vis-à-vis* the New York cocoa futures market. The New York cocoa futures market was in a contango situation, which is the norm, as cocoa prices were progressively higher in the succeeding delivery months as compared to the nearest delivery month (**Figure 8**). This difference in price configurations demonstrates that, at that time, the London market was no longer a good expression of the demand and supply situation in the world. The market had, temporarily, lost its price discovery function. This may have caused lasting damage to confidence in the London cocoa futures market as an efficient mechanism for price discovery.



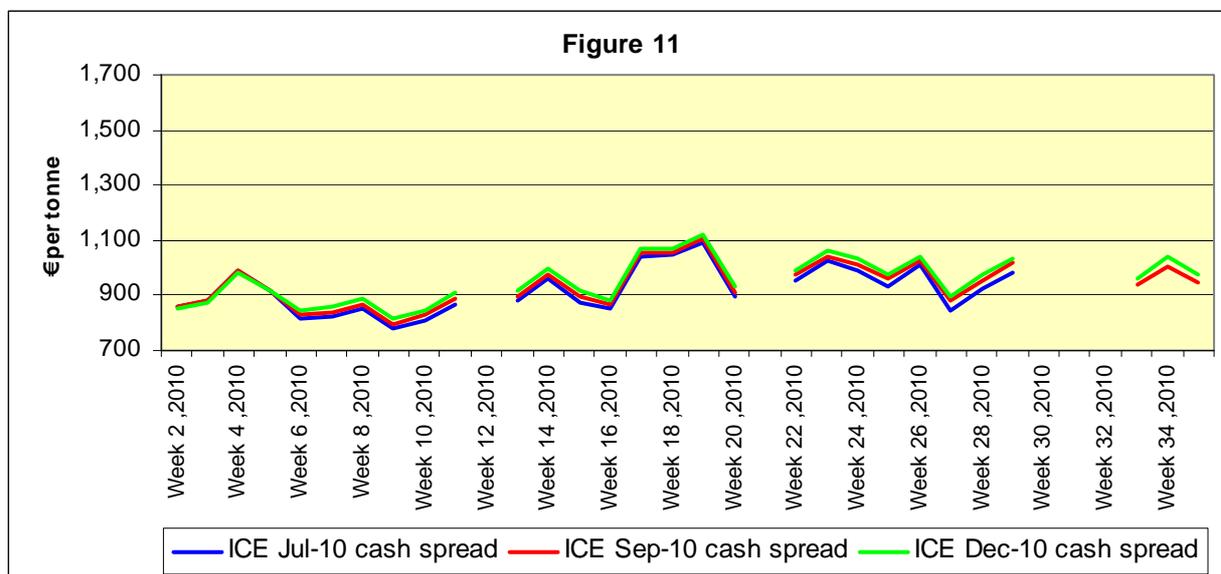
50. Moreover, the arbitrage spread started progressively to widen as the squeeze materialized on the London market. In particular, the spreads for both the July 2010 and September 2010 contracts started to increase from the middle of May 2010 and reached levels of more than \$ 1,000 per tonne and nearly \$ 600 per tonne, respectively, at the expiration of the July 2010 contract. In contrast, the spread for the December 2010 contracts remained more or less below \$ 400 per tonne. Developments after the middle of July 2010 demonstrate that the high spreads were caused by the squeeze, as the arbitrage spreads returned to their normal levels after that date. (Figure 9).



51. The misalignment of the price discovery mechanism of the London terminal market was not limited only to the New York market, but was also observed when comparing the London prices with ex-farm prices. During the squeeze, ex-farm prices were no longer following price developments on NYSE LIFFE. In particular, premiums of both the July 2010 and September 2010 contracts *vis-à-vis* ex-farm prices in Côte d'Ivoire started to increase from the middle of May and reached their maximum levels in the middle of July 2010, the expiration date of the July 2010 contract. This demonstrates that there was a lack of convergence between ex-farm prices and prices on the London market. (Figure 10).



52. A completely different picture emerges when comparing the ICE cocoa futures prices in New York and farm-gate prices in Côte d’Ivoire (accounting for the premium of about US\$ 150 that this deliverable cocoa receives on the New York market) (**Figure 11**). The price differences fluctuated in a range of between €900 and €1,100 per tonne without any tendency to increase.



53. It is concluded that the squeeze demonstrated that there is a general lack of transparency in the London market. The squeeze may also have done lasting damage to the London market as a place for efficient hedging of price risks. Most importantly, it is clear that the London market, during the build-up to the squeeze, could no longer function as a good mechanism for price discovery. The latter is demonstrated by the sharp increase in the arbitrage spread between London and New York, as well as by the disconnection between prices on the London terminal market and ex-farm prices in West Africa. In fact, the London cocoa futures market ceased, if only temporarily, to fulfil its essential terminal

market functions. This must have made it difficult for the physical market to function properly. In actual fact, the impact was fortunately limited, as only small physical volumes of cocoa were traded at the time.

#### **WAYS TO PREVENT A FUTURE SQUEEZE IN LONDON**

54. Any commodity futures market is prone to a squeeze in the presence of a shortage of the underlying commodity in the spot market. The cocoa futures market is a special case, as it is more prone to a squeeze than any other commodity futures market. This is the case because it is among the smallest commodity futures markets in London and New York. As a result, the upfront investment required to achieve a dominant position in the cocoa futures market is lower than in any other commodity futures market. Paradoxically, if more speculators had been trading in the July 2010 cocoa futures contract, it would have been more difficult for a market party to squeeze the shorts.

55. The first documented case of a squeeze on a commodity futures market dates from 1888, when a dominant trader attempted unsuccessfully to squeeze the wheat futures market in Chicago. Since then, US regulators have put in place measures and monitoring mechanisms to try to prevent the occurrence of dominant positions, by introducing third-party regulations; position limits for speculators; comprehensive statistical surveys on certified stocks; and publication of the behaviour of market participants. However, the London market has been lagging behind completely compared to the efforts being made by the regulator in the USA to curb non-competitive behaviour in cocoa futures trading.

56. Striking differences emerge from a comparison of the regulatory frameworks of the New York and London terminal markets. The major differences are:

- **Third party regulator.** The New York terminal market, ICE, is regulated by a third party, the US Commodity Futures Trading Commission (CFTC). On the other hand, the London International Financial Futures Exchange (LIFFE) is the front-line regulator of its own market, in accordance with the Financial Services and Market Act 2000 (FSMA) part XVIII. This means that the London market is self-regulated and that no third party oversees cocoa futures trading in the London market.
- **Position limits.** The US CFTC applies position limits to speculators: 1) they cannot hold more than 1,000 net positions (equivalent to 10,000 tonnes) for the contract that is closest to the expiry date; and 2) speculators are not allowed to hold more than 6,000 net positions (equivalent to 60,000 tonnes) per delivery month and have consented to decrease those positions when ordered to do so by the Exchange, acting at its own discretion. In contrast, there are no regulations for position limits on the LIFFE cocoa futures markets.
- **Information on traders.** Data on trading activities by delivery month, broken down by type of traders, are made available to the public on a weekly basis for the ICE cocoa futures market in New York in a publication called the Commitment of Traders (COT) report. However, the LIFFE in London does not disclose any information concerning its market participants and their trading positions.

- **Information on stocks.** The ICE publishes on a daily basis the size of cocoa bean stocks in North-American certified cocoa warehouses, which represent nearly 100% of all cocoa warehouses. On the other hand, LIFFE publishes the size of stocks in European certified cocoa warehouses on a fortnightly basis only. Moreover, the warehouses covered represent only about 45% of cocoa warehouses in Europe.

57. It is easy to see that, if New York trading rules had been in place in the London futures market, the squeeze of the July 2010 contract would most probably not have occurred. Firstly, data on market participants would have clearly indicated the accumulation of a large number of contracts in the hands of a few players from the middle of April 2010. Secondly, position limits on speculators would not have allowed any non-commercial trader to have more than 1,000 contracts on the July 2010 contract from 15 May 2010. In contrast, the squeeze in London was realized with more 24,000 contracts.

58. It is concluded that trading regulations in the London market are minimal. London is far behind New York in its efforts to maintain transparency in the market and to eliminate non-competitive behaviour. Immediately after the squeeze, the management of LIFFE announced that they were considering the introduction of a Commitment of Traders Report, following the example of New York. However, it was also made clear that the stakeholders in the market were disinclined to accept limitations to open positions. That was to be expected in a regime of self-regulation, as the stakeholders would not wish to impose limitations on their own freedom of action.

59. As illustrated above, it is urgent that the London market should introduce rules and regulations similar to those in the New York market. The market should be transparent at all times and non-competitive behaviour should be made impossible. It is understood that the New York market intends to further tighten its rules. However, the London market should, at the very least, match the current regulations of the New York market.