NYSE Liffe: Evolution and opportunities in commodities and OTC derivatives trading
Explore the broad range of commodity derivatives traded at NYSE LIFFE. Our futures and options contracts include cocoa, robusta coffee, white sugar, feed wheat, milling wheat, rapeseed and corn.

Visit our website to see how these contracts can serve as valuable risk management tools, as well as effective trading, arbitrage and investment vehicles. nyx.com/commodities

Find out more:
LONDON +44 (0)20 7379 2588
commodities@liffe.com
PARIS +33 (0)1 49 27 19 27
commodities@euronext.com

NYSE Liffe is the brand name of the derivatives business of NYSE Euronext, comprising the derivatives markets in Amsterdam, Brussels, Lisbon, London and Paris; and the futures markets in the U.S. This notice is for informational purposes only and does not constitute an offer, solicitation or recommendation to acquire or dispose of any investment or to engage in any other transaction. Those wishing either to trade in any products available at NYSE Liffe or to offer and sell them to others should consider both their legal and regulatory position in the relevant jurisdiction and the risks associated with such products before doing so. Potential users of NYSE Liffe contracts should familiarise themselves with the full contract specification of the product concerned and any associated information.
In this issue...

04 Evolution and innovation in commodities and OTC derivatives trading

05 Commodities trading: If you build it they will come
By Vince Heaney

09 OTC Derivatives Markets: Crises turn into Opportunities
By Vince Heaney

Publisher

Special Reports Editor: Simon Gray, simon.gray@globalfundmedia.com
Sales Manager: Simon Broch, simon.broch@globalfundmedia.com
Publisher/Editor-in-Chief: Sunil Gopalan, sunil.gopalan@globalfundmedia.com
Marketing Director: Oliver Bradley, oliver.bradley@globalfundmedia.com
Graphic Design: Siobhan Brownlow, siobhan.brownlow@globalfundmedia.com
Photographs: iStockphoto.com; NYSE Liffe, NYSE Euronext; FSA London
Published by: Global Fund Media Limited, 2nd Floor, Berkeley Square House, Berkeley Square, London, W1J 6BD Tel: +44 (0)20 7887 6326
Website: www.globalfundmedia.com

©Copyright 2009 Global Fund Media Limited. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publisher.
Evolution and innovation in commodities and OTC derivatives trading

The ramifications of the financial crisis have extended further and will last longer than few could have imagined two years ago. Iconic investment banks have disappeared, governments have been forced to take stakes in many of the surviving financial institutions and the costs of the bailout have pushed budget deficits to unprecedented levels.

From the re-packaging of mortgage debt in securitized products to the spectacular growth of CDS, derivatives markets have been at the centre of both the boom and subsequent crisis. They are, therefore, an area of particular focus for regulators’ efforts to make the financial system in future more robust and safer. Exchanges, such as NYSE Liffe, are ideally placed to play an important role in this process. By building on the successes of its existing derivatives services, NYSE Liffe can help facilitate the transaction of existing business flows in a more transparent and efficient manner as well as provide the necessary market infrastructure for emerging trade and investment flows.

In October 2005 NYSE Liffe launched its Bclear OTC wholesale service as an equity derivatives platform covering 300 underlying stocks from 16 different countries. Bclear today is a cross-asset class platform covering futures and options on over 1,000 underlying instruments from over 20 countries.

As a concept, Bclear is very simple. It provides a simple and cost-effective way to register and process wholesale derivatives trades through the platform to clearing at NYSE Liffe Clearing. This reduces the counterparty, credit, legal and operational risks often associated with OTC trades. Bclear offers users the best elements of both the OTC and listed derivatives markets - flexibility and privacy, together with the ability to better manage counterparty and operational risk.

The award-winning service has enjoyed rapid growth from launch. In 2006, its first full year of operation, Bclear handled 52m contracts and volumes increased by 133 per cent and 56 per cent respectively in 2007 and 2008. By August 2009 volumes processed through Bclear in the year-to-date were over 50 per cent higher than in the same period of 2008 and in June 2009 the total volume in equity derivatives futures and options registered through the service passed the 500 million milestone.

Bclear’s success is due, in part, to the broad adoption by both the buy-side community and member firms benefiting from the broad range of underlying stocks and indices and the flexibility available on the service. On reaching the 500 million contract milestone Adrian Valenzuela, Managing Director, head of equity derivatives flow marketing at J.P. Morgan, said: “The relevance of the Bclear service to the equity derivatives community is greater today than it has ever been.” Phil Doherty, Director at BlackRock Investment Management UK Ltd said: “Bclear has proven to be a valuable way for us to access the tailored benefits of OTC style options within an exchange environment, the service is clearly designed to meet the needs of market participants.”

Building on this success, NYSE Liffe is now extending the benefits of Bclear to commodity derivatives, starting with underlying contracts in cocoa, coffee and sugar. Future development will leverage NYSE Liffe’s capabilities in agricultural commodities futures, further extending the provision of necessary infrastructure for investors to take full advantage of one of the coming decade’s most exciting investment themes.

This special report is in two parts. The first analyses the factors behind the secular long-term trends in the global supply and demand for foodstuffs, putting NYSE Liffe’s expansion into commodities into context. The second discusses recent developments and trends in the OTC markets for financial derivatives offering insights into the probable direction of future market development.
The long-term trends in soft and agricultural commodities will provide some of the most exciting trading and investment opportunities across all asset classes in the next decade. NYSE Liffe has already experienced remarkable growth in the trading of these commodities and has embarked on a development programme to provide market participants with the necessary products and trading infrastructure to take full advantage of the opportunities still to come.

Introduction
Faced with a crisis that has brought the banking system to its knees and plunged the global economy into a synchronized recession, the focus of attention is understandably on restoring the financial system to health and ensuring past mistakes are not repeated. Exchanges, such as NYSE Liffe, are an integral part of the process through which trading in financial products will in future be more efficient, more transparent and above all safer. Moreover, derivatives exchanges, like NYSE Liffe, will continue to play an important role in enabling the exchange of risk in an uncertain world.

But when all eyes are on crisis management, it is easy to lose sight of longer-term underlying economic trends. Perhaps the greatest of these is the impact of economic development in China and other emerging countries on the global supply and demand balances of commodities and natural resources.

Ensuring the world’s growing population has enough to eat is the challenge facing politicians in both the developing and developed world and the need to address that problem will ensure that commodities will be one of the most important asset classes of the next decade.

More than a cycle
Undoubtedly there was a traditional cyclical element to rising agricultural prices between 2006-08. The surge in US wheat prices, for example, owed much to adverse weather conditions that damaged crops in Canada, the EU and Australia at a time when wheat inventory levels in the US were at their lowest levels in 60 years. The influx of financial investors, some of whom trade based on the markets’ momentum as much as the supply and demand balances, has in turn prompted debate as to whether their involvement may accentuate price movements in the short-term. In the United States, for example, the CFTC believes there is a connection, but this view is not shared by other regulators, governments and opinion formers around the world.
Agricultural commodity prices have fallen following the global economic downturn and memories of food riots in 2007-08 in a range of countries from Mexico to Morocco are fading. But underlying secular changes to both global supply and demand have made the future course of world food prices highly uncertain. It is likely that prices will not resume the long-term downward trend in real terms that prevailed from 1975-2005.

**Demand outstripping supply**

Population growth is the key determinant of demand for food grains. In August 2009, the Department for the Environment, Food and Rural Affairs (Defra), launched a review of the UK’s food security in which it stated that world population is expected to reach 9bn by 2050, requiring a 70 per cent rise in food production to prevent widespread hunger. Consumption patterns, too, are changing. As real incomes rise, particularly from very low levels of per capita income, so does daily calorie intake. Moreover, the proportion consumed as protein, particularly meat, increases. This has a leveraged effect, because meat production requires proportionally more grains. For example, seven kilogrammes of feedstock grains are needed to produce one kilogramme of beef.

A desire for energy security, borne out of high oil prices, has led to the increased production of biofuels, such as ethanol and biodiesel. This has added to the long-term demand pressure on agricultural commodities. As farmers switch acreage into feedstock grains for biofuel production the knock-on effect ripples through the supply balance of other food grains such as wheat.

These demand trends need not lead to higher agricultural prices if supply can keep pace with the expansion in demand. Growth in supply is the result of a combination of acreage expansion and increases in yields. According to the Food and Agriculture Organisation (FAO) of the United Nations, growth in yields is slowing. Over the past 45 years, average annual growth in global cereal yields has been 2 per cent a year, but over the past 20 years it has slowed to 1.3 per cent. This falls far short of the pace required to match the expected increase in demand from the combination of population growth, dietary change and increased biofuels usage.

This puts the onus of increasing supply on acreage expansion. But according to the FAO, over the last five decades global cultivated acreage has expanded by just less than 15 per cent, primarily through growth in South America and Africa. There is scope for additional significant acreage expansion in South America, Indonesia and the former Soviet Union. But much of this land is remote and will require considerable investment in infrastructure that can take years, or even decades, to build. Climate change, too, could play its part in the supply of suitable land for cultivation. Projected increases in temperatures through the impact of global warming are expected to have a dramatic impact on agricultural production in areas vulnerable to a reduction in water. The overall picture, therefore, is one of considerable uncertainty.

**Building the infrastructure for success**

Encompassing broad trends from climate change to energy security, the commodities story will be difficult to ignore in coming years. But the provision of suitable products must develop in line with the evolving needs of existing market participants as well as providing a market infrastructure that addresses the concerns of new entrants.

NYSE Liffe has an established portfolio of central order book exchange listed contracts in soft and agricultural commodities – cocoa, coffee, sugar, wheat, rapeseed and corn – all of which provide benchmark prices for the underlying physical markets. The next stage in the evolution of the NYSE Liffe product offering is to leverage the exchange’s position in exchange-traded commodities with the award-winning Bclear service for over-the-counter (OTC) derivatives. The expansion of Bclear is designed to offer...
users of the OTC commodity markets greater security than they currently have.

“Putting commodities onto Bclear is an initiative that has been on our agenda for some time,” says Ian Dudden, Director Commodity Derivatives at NYSE LIFFE. “We brought the first phase to market at the end of March 2009, starting with futures and options based on the cocoa, coffee and sugar contracts, and will be following that up with a number of subsequent phases, in line with the continued development of Bclear.”

“While they have existed for years in the energy markets, OTC swaps in soft and agricultural commodities still represent a relatively small part of overall trading activity,” explains Aaron Gill, Head of Business Development, Commodity Derivatives at NYSE LIFFE. The term ‘swap’ in the commodities markets differs in usage from the fixed income markets. An OTC commodity swap references a particular future or option but has a slightly different schedule or particular structure, compared with the standardized products listed on exchanges. There is an active daily market in OTC swaps between banks and also between banks and end users of commodities, designed to permit additional flexibility – for example by matching hedging needs to a specific production schedule.

Risk mitigation

NYSE LIFFE’s plan – to take vanilla OTC instruments that reference the central order book price and provide users with the security of automated trade administration and clearing through a central clearing counterparty – is designed to win business that is currently taking place in the bilateral OTC market. The clearing-house structure eliminates counterparty credit risk and, significantly for commodity market participants, it also removes delivery risk. “For the hedge fund community that can be a very important distinction,” says Gill. “The contracts on Bclear are cash settled which allows direct exposure to the volatility and price movement of the underlying physical asset, but without the delivery risk.”

“Many of our customers who trade in financial assets want exposure to commodities, but without the risks associated with dealing with the physical product,” says Nick Jacob, senior broker in soft and agricultural commodities at Tullett Prebon.

“Bclear allows them to mitigate those risks, and therefore encourages new counterparties to contribute to these markets.”

Bclear settles the OTC instrument, for example coffee, using the daily settlement price of the coffee future. For margining purposes the client is getting direct access to actual market prices. “As a hedge fund I know that if I get involved in an OTC cleared commodity trade my mark to market is independent – it’s an exchange traded price,” says Dudden. “There is no concern about how my book is being valued relative to my counterparty’s book, nor about counterparty credit risk or delivery risk.”

The Bclear service offers users the ability to either report trades or remain anonymous – benefitting from the transparency inherent in a central order book market without revealing too much about their own activity. Bclear also provides a way for market participants to put part of their vanilla business into the cleared space thereby freeing up credit lines for more exotic or esoteric business with higher margins.

Bclear has additional advantages compared with other clearing solutions available in the market. “One of the attractions of Bclear for the hedge fund community is the ability to leverage the distribution already in the system,” says Gill. “Because Bclear has been around since 2005 and is used by the majority of the buy-side and the sell-side in the equity space its not just a niche product for commodities.”

Constant evolution

The evolution of the equity offering on Bclear shows how its structure allows NYSE LIFFE to continually add additional value for customers and more closely match their trading requirements. In equities the service has moved from single stock options and an initial set of futures and options on indices to single stock futures and an even broader range of index contracts. The latter now encompass a set of MSCI index futures contracts referencing Emerging Markets, Latin America and the BRIC countries amongst others. Volumes processed have grown by an average 51 per cent a year since the launch of the service in October 2005.
Similarly, the commodity products launched on Bclear so far - vanilla swaps on NYSE Liffe’s listed soft commodities - and the next phase of development, which will offer the Exchange’s wheat, rapeseed and corn contracts as well as greater flexibility of expiry dates, are the first building blocks in a service that will continually develop.

“As equities have shown there is a constant flow of new products onto the service,” says Dudden. “In commodities, this is just the beginning, we are just getting the channels open. There are many other products and trading strategy types which could potentially be listed on Bclear.”

“As investor business starts to return to the markets and risk appetite increases, we are seeing a broadening interest in a growing range of commodities and the need for new products and infrastructure to satisfy that demand,” says Tullett Prebon’s Jacob.

The milling wheat futures and options contracts, for example, have grown from trading 1,500 contracts a day in 2006 to almost 10,000 contracts a day now, as a direct result of NYSE Liffe providing the market with a product they required to hedge their physical price risk. “From a Bclear perspective, we know that there is activity in the OTC space which references pricing in the milling wheat futures, a benchmark we created and own,” says Gill. Beyond the logical next step of clearing vanilla agricultural contracts that mirror the exchange-listed products, there is also scope for further development. NYSE Liffe’s Paris-based wheat contract, for example, is based on Western European wheat deliveries, but Black Sea wheat trades at a price differential. Swaps could be developed based on specific regions that relate back to NYSE Liffe’s central order book contracts.

As well as adapting to the needs of participants in established areas of the commodity markets, OTC cleared derivatives have an important place in facilitating trade in new markets created by evolving global trends. “What you are seeing now is the evolution of those products into new areas,” says Gill. “For example take biodiesel. We have a rapeseed contract actively traded by companies in that sector of the energy business, not only by those in the agricultural space.” Similarly NYSE Liffe has a core white sugar business, which is closely related to the cane sugar industry that provides the feedstock used for ethanol production. Ethanol and sugar prices are closely correlated and many of NYSE Liffe’s sugar customers come from that sector of the energy industry.

**Building blocks**

Commodity markets have not escaped unscathed from the financial crisis. Activity this year in the bilateral OTC markets in soft and agricultural commodities has slowed. Credit is an issue. The sugar market, for example, is heavily reliant on Brazil for sugar and ethanol exports. But in reaction to the turmoil in the financial markets in the last quarter of 2008, some of the major investment banks have either severely restricted, or in some cases withdrawn, credit facilities in Brazil, which has impacted OTC activity. Also with the extreme volatility seen in commodity markets a lot of participants are trading on much shorter time horizons.

But a crisis also provides an ideal opportunity to look ahead and prepare for the future. It will take time for the wider market to refocus on the potential from the long-term trends in the soft and agricultural commodities markets, but NYSE Liffe is creating tomorrow’s infrastructure today. “Bclear allows you to take what you have and evolve it, but also to look at how it works in a growing space - whether it is inter-related to other exchanges or inter-related to other products that are emerging, such as biodiesel or ethanol,” says Dudden. “With the Bclear service we want to be positioned to have the appropriate building blocks to capture that development and the enhancement of those market trends.”
Crisis provide impetus for change. The current financial turmoil will be no exception and while the precise way in which the structure of OTC derivatives markets will change is still evolving, the broad trends are emerging. What is clear is that the desire among regulators for safer, more transparent OTC derivatives markets and the recognition among industry participants of the need for change will push more business towards exchanges, electronic trading platforms and clearing house environments.

**Driving forces**
Without outside influence, the extent of change in OTC derivatives markets would probably not be as great. At the beginning of 2009, continued tightness in credit conditions and the fact that the majority of financial institutions had been significantly impacted by the crisis, gave market participants a strong financial reason for shifting business onto exchanges and into clearing houses. In a capital constrained market, conducting business on exchanges or in a clearing house environment frees up regulatory capital for, potentially more profitable, use elsewhere. Lower capital requirements remain a significant advantage of using CCPs, but credit concerns have waned with the gradual improvement in financial and economic conditions over the course of the year.
Regulators, however, continue to press for change. “Because of the help given to a number of financial institutions, regulators are trying to push as much business as possible, at least into the clearing space and potentially into the exchange space or onto electronic trading platforms,” says Ade Cordell, Director, OTC Services at NYSE Liffe. “Regulators want more visibility and transparency in the market place.”

But derivatives market participants are not waiting for the end results of this regulatory push. Ahead of any mandated solutions, market participants have already made commitments to strengthen the infrastructure of the OTC market to the key regulators - principally the New York Federal Reserve, but also the European Commission and the FSA. Market participants will look at, in future, putting more business into a clearing house environment across a range of asset classes and have defined the asset classes on which they will concentrate their efforts. A commitment has also been made to look at the possibility for greater automation in the OTC space. “It’s an acknowledgement to the regulators that some changes are needed,” says Cordell. Also, having recognized that reform is on the way, from an industry perspective it is preferable to be involved at an early stage in the design and implementation of change, to ensure that an optimal solution is achieved.

A firm timeline for action has been set. For example, the industry gave a commitment to the European Commission to start clearing CDS business in Europe by 31 July 2009 and most of the main dealers started to clear on that date. With clearing established in CDS, the dealer community will now look at clearing other asset classes. At the end of May LCH.Clearnet announced the planned extension of its OTC interest rate swap clearing service to the broader buy-side trading community and market participants have said they will be able to increase clearing of this asset class by the end of the year.

**Beyond clearing**

In addition to clearing services, market participants are extending other successful parts of OTC infrastructure to a wider range of asset classes. For example, at the height of the crisis in the wake of Lehman Brothers’ collapse, the investment bank’s exposure to the CDS market was rumoured to be as high as $400bn. The Depository Trust & Clearing Corporation (DTCC), through the information in its Trade Information Warehouse, was able to estimate the true exposure as closer to $6bn. “The DTCC has done an exceptional job with its trade information repository for the CDS market,” says Cordell. “That’s why regulators would like to see similar initiatives across other asset classes and why the industry is willing to provide them in a phased approach.” A Trade Information Warehouse will be established for interest rate swaps by the end of the year, with a similar initiative to follow for equity derivatives, probably by 31 July 2010.

Market participants would prefer one global repository per asset class, to avoid the potentially higher costs of running two similar sets of infrastructure. Complications can arise, however, if different countries want large market infrastructure projects to reside within their jurisdiction. The DTCC, for example, has said that it is happy to be regulated by both the US and the European Union as a global platform with access open to all market participants. The European Commission, however, may have a preference for a repository that resides in Europe, rather than one that is US-owned and operated.

**Is the customer king?**

As well as meeting the needs of different regulators, new OTC market infrastructure
must address the needs of different market participants, not just the dealer community. Which market participants are allowed access to the CCP is a significant issue. Under some existing market solutions only the members of the CCP, who are usually the main dealers, have access. This arrangement, however, can have adverse implications for buy-side customers.

Assume, for example, that prior to the collapse of Lehman Brothers a buyside customer had exposure to OTC derivatives and that most of that counterparty exposure was with Lehman – an exposure the customer was uncomfortable with. Moving the exposure onto a safer exchange environment by unwinding the position and taking Lehman out of the equation would have required going through one of the main dealers – one of whom was Lehman.

Now that OTC derivatives products are being cleared, it is often the dealers who still decide who is involved. The IntercontinentalExchange (ICE) service for clearing CDS, for example, handled only the main dealers’ own business with each other when it launched earlier in 2009. Business between dealers and end customers remained in the OTC market and buy-side customers were therefore prevented from enjoying the benefits of the CCP model. NYSE Liffe’s Bclear model, in contrast, is a service open to all market participants, which is likely to be the template for future access. Regulators are aware of the importance of the access issue for end customers and ICE will now allow buy-side participation from October 2009.

Concentration risk
The financial crisis has shown that even institutions previously considered unassailable can prove vulnerable. Some critics suggest that shifting business into a cleared environment would concentrate risk in the clearing houses, merely shifting the risk of failure away from the dealers and banks onto the CCPs.

But the collapse of a clearing house, while theoretically possible, is highly unlikely. One of the advantages of a CCP is that it neutralizes a significant amount of exposure between counterparties. A CCP’s structure also includes various levels of protection: if one market participant fails its business is shared out amongst all the others, when a second fails, again its business is shared out amongst the rest. The initial margin that a clearing house collects is used to offset any potential losses. When Lehman Brothers collapsed, for example, the initial margin that LCH.Clearnet had collected was sufficient to unwind all of Lehman’s business, with 60 per cent of the cash remaining available to be given back to the administrators.

“CCPs are cautious and prudent by nature,” says Cordell. “Could one go under? In theory yes, but it would require the collapse of several major institutions at once. By that stage you would have a massive catastrophe on your hands and the central banks would have to be involved supporting the entire system.”

Diversity of provision
Further diluting the already distant risk from concentration, the OTC derivatives markets look set to develop without one provider establishing a dominant position across a range of asset classes. “There is potential for the OTC cleared market to grow and benefit the OTC market in general. There will be a core group of exchanges and CCPs that will do well and we believe we will be one of them,” says Cordell. “Our Bclear model has been very successful in equity derivatives,
The range of derivatives that can be cleared on exchange will continue to expand. CDS are cleared through ICE, LCH. Clearnet clears interest rate swaps and equity derivatives are cleared on Bclear. In commodities; Bclear, CME and ICE all have a cleared service. To capture the benefits of netting exposures that clearing offers, products need to be standardized, which remains a subject of debate between the industry and regulators. But there are a wide number of other assets that could be considered for clearing – metals, precious metals, additional agricultural commodities, even, potentially, emissions. “There is an opportunity for market participants to get more of their business cleared,” says Cordell. “But also an opportunity for operators, such as NYSE Liffe, to innovate and invest in their systems to be in a position to offer the industry the infrastructure it needs.”