



HOUSE OF LORDS

**EUROPEAN UNION COMMITTEE ENQUIRY INTO THE
EUROPEAN COMMISSION'S COMMUNICATIONS
ON ENSURING EFFICIENT, SAFE AND SOUND DERIVATIVE MARKETS**

A response by the Futures and Options Association (FOA)

JANUARY 2010

European Union Committee Enquiry into the European Commission's Communications on Ensuring Efficient, Safe and Sound Derivative Markets

1. Introduction

1.1 The Futures and Options Association (FOA) is the principal European industry association for over 165 firms and organisations carrying on business in futures, options and other derivatives. Its international membership includes banks, financial institutions, brokers, commodity trade houses, energy and power market participants, exchanges, clearing houses, lawyers, accountants and consultants (see Appendix 1).

1.2 The FOA supports the drive to establish a more robust framework of regulation, supervision and credit risk mitigation with regard to OTC dealings in derivatives, including:

- (a) closer supervision of markets and dealers;
- (b) central counterparty (CCP) clearing of "eligible" OTC derivatives (see s.2.2);
- (c) proportionate capital treatment of OTC transactions (see s.2.3 and para 2.5.4);
- (d) comprehensive trade reporting to trade repositories (see s.2.4);
- (e) proportionate post-trade transparency of OTC transactions (see para 1.3);
- (f) improvements in operational processes (e.g. electronic confirmations).

1.3 As to 1.2(e) above, HM Treasury and the FSA, in their comment paper "Reforming OTC Derivative Markets: A UK Perspective" (December 2009) ("2009 paper") recognised that *"some OTC derivative markets currently have a higher degree of post-trade transparency already available to a wide range of market participants"*; that post-trade transparency price regimes *"will vary on an asset class by asset class basis"*; and that it was *"unclear what benefits additional post-trade transparency can deliver to markets where products are bespoke and, as such, often illiquid"* (paras 7.26-7.31)

1.4 While the FOA supports EU and US efforts to establish a common framework of regulation for what are essentially global markets, the US approach is – at this stage – intensely politicised and, in some respects, critically different. Any transatlantic consensus on this issue must strike an appropriate balance between delivering safer and sounder markets and sustaining corporate and institutional risk management capability – as reflected in the following statements of the European Commission's Communication "Ensuring efficient, safe and sound derivative markets: Future policy actions":

"Derivatives play a useful role in the economy: they can be used to transfer (all or part of) the risks inherent in economic activity from economic agents who are not willing to bear them to those who are." (Section 1)

"The Commission believes that a paradigm shift must take place away from the traditional view that derivatives are financial instruments for professional use, for which light-handed regulation was thought sufficient, towards an approach where legislation allows markets to price risks properly." (Section 2)

“The Commission does not want to limit the economic terms of derivatives contracts, neither to prohibit the use of customised contracts nor to make them excessively costly for non-financial institutions.” (Section 2.2)

1.5 The FSA, in para 2.7 of its 2009 paper, while supporting *“the broad thrust of proposals under discussion”*, questioned whether some of the measures *“could have potentially damaging impacts on financial markets”* (identified, as relevant, elsewhere in this submission). The FOA welcomes therefore the Commission’s acknowledgement in Section 2.2 of its Communication:

- that it will *“carry out impact assessments before finalising its proposals”*;
- that it will take into account *“the costs and benefits”* of its policy orientations *“recognising that most non-financial institutions are not of systemic importance”*;
- that it will *“strive to ensure that any future policy option allows non-financial institutions to manage the risks inherent to their business”*; and
- of the need to *“take into account the specificities of certain commodity contracts, e.g. electricity and gas markets, which are particular in their underlying physical market structure”* (which may be equally relevant in the case of other OTC asset classes).

Any such analysis must, however, take into account the fact that:

- (a) The OTC markets are professional wholesale markets and essential to the risk management capability of both commercial organisations and financial institutions.
- (b) Non-financial firms (end-users, corporate firms, specialised commodity firms) did not cause the financial crisis and are not systemically important. Since a “one-size-fits-all” approach would be detrimental to them and their ability to manage risk and, consequently, for the real economy, the application of the Commission’s policy proposals to them is disproportionate, particularly mandatory CCP clearing.
- (c) One of the key lessons of the crisis was the need to enhance and not (inadvertently or otherwise) reduce the capability of organisations to better manage their risks.

1.6 With regard to the new European Securities and Markets Authority (ESMA), the FOA believes that, if it is to act as a “supervisor of supervisors” free of conflicts of interest and “turf” issues (with the national supervisors), it should not become involved with direct licensing and supervision.

2. Specific Responses to Questions Posed in the Committee’s Call for Evidence

2.1 Derivatives

2.1.1 With regard to the economic benefits of derivatives (see Appendix 2), the European Commission has recognised that they are essential to the EU economy in helping to manage and mitigate business risks and costs; and that institutional and corporate counterparties must be able, therefore, to access a broad range of cost-efficient exchange-traded and OTC financial instruments to manage their business and transactional risks – which are often complex and highly individualised.

2.1.2 The risks associated with derivatives are similar to those of other financial exposures, i.e. market risk, credit risk, operational risk and legal risk, but are exacerbated by:

- (a) leverage, which is mitigated by the continuing obligation to pay and maintain a deposit based on a percentage of the full contract value and calculated daily according to expected market movements) (NB. Leverage also provides the essential economic basis that makes derivatives ideal as a hedging instrument);
- (b) complexity and/or the long-term nature of some OTC products – which may make risk, pricing and valuation difficult;
- (c) the prevailing degree of market interconnectivity and liquidity.

NB. Current industry and regulatory initiatives are progressively mitigating these risks and enhancing market and systemic safety.

2.1.3 As to the role played by derivatives in the crisis, the FOA would argue that, apart from the CDS markets, the OTC markets were not a cause of the crisis and worked efficiently throughout its duration. However, the crisis did highlight the consequences of counterparty risk, severe loss in liquidity and the risks of OTC markets being, in the US, unregulated or, as in the EU, under-regulated.

2.2 Clearing Directive

2.2.1 The FOA supports new market infrastructure legislation, providing it is founded on IOSCO standards, is proportionate in regulatory terms, eliminates member-state regulatory inconsistencies and focuses on, for example:

- robust standards for CCP corporate governance and risk management within CCPs;
- clearing choice and rights of access, subject to prudential criteria;
- the fair and transparent pricing of CCP services;
- the provision of CCP services without hindrance across the EU.

2.2.2 However, the proposal by the European Commission that CCPs should be licensed by ESMA, but supervised by the relevant member state authority:

- (a) will create needless conflict, duplication and confusion to the regulation of what are increasingly systemically important organisations;
- (b) add further complexity for exchange-integrated CCPs insofar as clearing will be licensed by ESMA, but execution by the member state supervisor; and
- (c) does not take into sufficient account the fact that, in the event of a default by a CCP, “lender of last resort” support will have to be provided by the central bank and funded by the taxpayers of the member state in which the CCP is located.

The FOA agrees with the FSA’s statement in its 2009 paper that, once pan-European standards are in place, *“It is unclear what additional benefits the introduction of authorisation and supervision at a pan-European level, as is being considered by the Commission, can deliver”* (para 4.25).

2.2.3 The FOA would make the following additional observations:

- (a) The final decision determining the “eligibility” of OTC contracts for central clearing purposes must remain with the “risk taker”, namely, the CCP and not, as is currently proposed in the US, with the regulatory authorities. The role of the EU authorities should be to work closely with the industry, including end users, to develop common EU criteria for determining “eligibility” for CCP clearing (see further para 2.2.4); and for the national supervisors to monitor and spot-check CCP interpretation, measurement and implementation of that criteria
- (b) The FOA is also concerned over the (possible) US intention to impose a 20% cap on bank/dealer ownership of CCPs. Any concern that bank or dealer ownership of CCPs could generate regulatory avoidance can be effectively addressed through regulatory oversight (see (a) above), capital incentives to use CCPs where possible (see para 2.3) and effective management of conflicts of interest (e.g. Chinese walls, segregation of functions, managerial oversight, independence policies and better use of non-executive directors).
- (c) Maximising credit risk mitigation via CCP clearing is important, but it should not:
 - (i) marginalise the availability of bespoke contracts to manage bespoke risks; or
 - (ii) significantly increase risk management costs (a concern of corporate treasurers); or
 - (iii) compel the use of standardised transactions to manage non-standard risks (i.e. enhanced basis risk) / reduce the availability of hedge accounting treatment; or
 - (iv) force CCPs to clear products which pose undue risk to a CCP.

2.2.4 The FOA notes that there has been a strong focus on “standardisation” as the determining factor as to whether or not OTC contracts will be eligible for CCP clearing. Clearly, standardisation is a key determinant (both legal, in terms of contract certainty, and economic, in terms of liquidity), but there are other equally important measures for determining CCP clearing “eligibility”, e.g. pricing transparency, liquidity, volatility, risk complexity, valuation capability and the risk management capability of the CCP. The EU/US shift towards FSA’s approach of clearing “eligibility” is to be welcomed.

2.3 Capital Treatment

2.3.1 Concerns over weak pricing and risk variations between non-CCP and CCP-cleared OTC transactions may generate differentiated capital treatment, but it must be based on those variations and not be driven by policy objectives. Unfortunately, the intention to “incentivise” the use of standardised CCP-cleared products could undermine the Commission’s other policy objective in para 2.2 of its Communication of not wanting to make customised contracts “*excessively costly for non-financial institutions*”.

2.3.2 As stated by the FSA in its 2009 paper “*The UK authorities support capital requirements that are proportionate to the risk they assume rather than being used as a tool to directly influence market structure. We therefore agree with the G20 and the Commission that bilateral arrangements, due to their higher risk, should be subject to higher capital requirements, but we are not supportive of penal, non-proportionate capital changes.*”

2.3.3 The Communication expects that “*the larger part of [the cost of strengthening the market infrastructure for OTC derivatives] will be borne by financial firms*” (Section 2.2) – but much of that cost will be a “pass-on” cost borne by end-users. There may be some “network” benefits, but it is over-optimistic of the Commission to assume that costs will decrease over time. In addition to the “pass-on” costs and as pointed out by the European Association of Corporate Treasurers, there will be a significant and ongoing increase in direct costs generated by the cash-flow burden of meeting daily and intra-day margin calls and requirements to use high-quality and more loss-resistant collateral.

2.3.4 Careful consideration must be given to the economic consequences of imposing “bomb-proof” capital requirements. It is this kind of “trade-off” which formed a central part of FSA’s Discussion Paper “Turner Review Conference Discussion Paper” (DP09/4) and generated its commissioning of a study of the cumulative economic/lending impact of capital and liquidity reforms (Chapter 4) – a study that has equal relevance in terms of assessing market impact.

2.4 Trade Repository Directive

2.4.1 The use of trade repositories should give the regulatory authorities better visibility of the macro- and micro-risk generated by dealings in individual OTC markets – providing they afford regulators open and unrestricted data access, irrespective of location.

2.4.2 Trade repositories should be subject to provisions and rules which are (i) harmonised globally; and (ii) directed towards ensuring the adequacy of arrangements for *inter alia*:

- (a) gathering and secure retention of trade data;
- (b) maintaining confidentiality and governing the basis of third-party disclosure;
- (c) aggregating data on positions, open interest, etc. for transparency purposes;
- (d) managing conflicts of interest;
- (e) preventing duplication in transaction reporting;
- (f) curtailing any unacceptable “monopolistic” consequences that may flow from the industry’s preference for a single trade repository for a single asset class.

In addition:

- (a) the regulatory authorities must be capable of analysing positions reported to them (but the reports will not include data on any underlying positions that are being hedged);
- (b) dealers should be required to report their OTC transactions either through the existing market infrastructure providers or, as may be necessary, to trade repositories or, in the absence of a repository for a particular class of OTC transaction (e.g. because for a small market it may not be economically viable), to the regulatory authority directly.

2.4.3 The FOA would prefer trade repositories to be licensed and supervised by their national supervisory authorities in accordance with global standards, rather than by ESMA. However, the key concern is more about the quality of licensing, regulation and supervision, rather than by whom it is undertaken or where a trade repository is based.

2.5 Further Issues

- 2.5.1 The FOA recognises the importance of keeping the Market Abuse Directive under regulatory review. Subject to issues of relevance and proportionality, it may be appropriate to extend its scope beyond regulated markets to cover MTFs.
- 2.5.2 The FOA notes the intention to provide member states with the “possibility” to set position limits, but is opposed to their use for the following reasons:
- (a) market participants should not be deprived of access to economically free markets unless that participation is unlawful (e.g. market abuse) or there is clear evidence that, although lawful, it is economically damaging to a particular market;
 - (b) there is no current evidence to suggest the upward (or downward) long-term trending of commodity prices has been driven by speculation;
 - (c) there is no evidence to suggest that the preferred UK approach of position management, which includes powers to require firms to close or reduce positions or to close them unilaterally (as opposed to position limits), has been found wanting.

The FOA agrees with the conclusion by the FSA in its 2009 paper that “*Given the complex, disparate and international nature of OTC markets, we consider position limits to be unworkable on a market-wide basis*” (para 9.11).

- 2.5.3 In considering the impact of financial participation in commodity markets, it should be remembered that:
- (a) financial traders deal in commodity markets for a variety of reasons, e.g. hedging portfolio risks and/or diversifying the risk profile of portfolios (because commodities move at different times in the economic cycle to the more traditional forms of investment) – and not just for “speculative” purposes;
 - (b) financial traders provide depth and essential liquidity to markets;
 - (c) because the trading motivation of financial traders is economically differentiated to that of commercial organisations, their readiness to accept the risk transfer trades of those organisations is critical to risk management and market functionality;
 - (d) as it is put by the FSA in its 2009 paper “*We do not consider activity by financial participants to be de facto manipulative*” and that “*The focus should be on combating ‘large positions that lead to manipulation’ irrespective of whether they are held by financial participants or not*”(para 9.19);
 - (e) as it is also put by the FSA in its 2009 paper “*To restrict participation to producers and end-users and to exclude, or even limit, financial players would, in the view of the UK Authorities, be likely to have a controlling effect on market prices, and potentially be detrimental to efficient markets and the price formation process in general*” (para 9.24).
- 2.5.4 The FOA supports the Commission’s intention to review the adequacy of collateral in relation to mitigating the risk of non-CCP cleared transactions, but:
- (a) any new collateral requirements should not be set at a punitive level;

- (b) any new requirements should take into full account the nature of the counterparty and the type of collateral that is readily available to them, e.g. requiring cash collateral would restrict the capability of non-financial institutions to use OTC derivatives to hedge risks; and
- (c) the value and the importance of other forms of credit risk mitigation, e.g. netting, letters of credit, parent company guarantees should not be discounted.

As it is put by FSA in para 5.9 of its 2009 paper, *“Improving the robustness of the collateralisation processes should be structured to ensure any changes are proportionate to the risk of the users of the system as a whole”* and, the FOA would add, to the nature of the counterparty and the kind of collateral that is readily available to that counterparty.

Anthony Belchambers
Chief Executive Officer
Futures and Options Association

29th January 2010

LIST OF MEMBERS OF THE FOA

FINANCIAL INSTITUTIONS

ADM Investor Services International Ltd
AMT Futures Limited
Bache Commodities Limited
Bank of America Merrill Lynch
Banca IMI S.p.A.
Barclays Capital
Berkeley Futures Ltd
BGC International
BHF Aktiengesellschaft
BNP Paribas Commodity Futures Limited
Crédit Agricole CIB London Branch
Capital Spreads
Citadel Derivatives Group (Europe)
Limited
Citigroup
City Index Limited
CMC Group Plc
Commerzbank AG
Credit Suisse Securities (Europe) Limited
Deutsche Bank AG
Fortis Bank Global Clearing NV - London
Fortis Bank SA/NV – London
GDI Markets Limited
GFI Securities Limited
GFT Global Markets UK Ltd
Goldman Sachs International
HSBC Bank Plc
ICAP Securities Limited
IG Group Holdings Plc
Investec Bank (UK) Limited
JP Morgan Securities Ltd
Liquid Capital Markets Ltd
LMAX Limited
M & G Investment Management Ltd
Macquarie Bank Limited
Mako Global Derivatives Limited
MF Global
Marex Financial Limited
Mitsubishi UFJ Securities International
Plc
Mizuho Securities USA, Inc London
Monecor (London) Ltd
Monument Securities Limited
Morgan Stanley & Co International
Limited
Newedge Group (UK Branch)
Nomura International Plc
ODL Securities Limited
Rabobank International
RBS Greenwich Futures
Royal Bank of Canada
S E B Futures
Schneider Trading Associates Limited
S G London
Standard Bank Plc
Starmark Trading Limited
The Bank of Nova Scotia
The Kyte Group Limited
Tullett Prebon (Securities) Ltd
UBS Limited
Wachovia Securities International Limited
WorldSpreads Limited

EXCHANGE/CLEARING HOUSES

APX Group
Bahrain Financial Exchange
CME Group, Inc.
Dalian Commodity Exchange
Dubai Mercantile Exchange
ECX
EDX London
European Energy Exchange AG
Global Board of Trade Ltd
ICE Futures Europe
LCH.Clearnet Group
MEFF RV
NYSE Liffe
Powernext SA
RTS Stock Exchange
Shanghai Futures Exchange
Singapore Exchange Limited
Singapore Mercantile Exchange
The South African Futures Exchange
The Tokyo Grain Exchange

SPECIALIST COMMODITY HOUSES

Amalgamated Metal Trading Ltd
Ambrian Commodities Limited
ED & F Man Commodity Advisers Limited
Engelhard International Limited
Glencore Commodities Ltd
Koch Metals Trading Ltd
Metdist Trading Limited
Mitsui Bussan Commodities Limited
Natixis Commodity Markets Limited
Phibro GMBH
RBS Sempra Metals
Sucden Financial Limited
Toyota Tsusho Metals Ltd
Trafigura Derivatives Ltd
Triland Metals Ltd
TRX Futures Ltd

ENERGY COMPANIES

Accord Energy Ltd
Atel Trading AG
BP Oil International Limited
British Energy Trading and Sales Limited
ChevronTexaco
ConocoPhillips Limited
E.ON Energy Trading SE
EDF Energy
EDF Energy Merchants Ltd
Gaselys
International Power plc
National Grid Electricity Transmission Plc
RWE Trading GMBH
Scottish Power Energy Trading Ltd
Scottish & Southern Energy Plc
Shell International Trading & Shipping Co
Ltd
SmartestEnergy Limited

PROFESSIONAL SERVICE COMPANIES

Allen & Overy LLP
Ashurst
Baker & McKenzie
Barlow Lyde & Gilbert
Berwin Leighton Paisner LLP
BDO Stoy Hayward
Cass Business School
Clifford Chance
Clyde & Co
CMS Cameron McKenna
Complinet
Contango Markets Limited
Deloitte
Denton Wilde Sapte
Eukleia Training Limited
Exchange Consulting Group Ltd
FfastFill
Fidessa Plc
Financial Technologies India
FOW Ltd
Freshfields Bruckhaus Deringer
Herbert Smith LLP
Hunton & Williams LLP
International Capital Market Association
ION Trading Group
JLT Risk Solutions Ltd
Katten Muchin Rosenman Cornish LLP
KPMG
Morgan Lewis & Bockius LLP
Mpac Consultancy LLP
Norton Rose LLP
Options Industry Council
PA Consulting Group
Patsystems (UK) Ltd
Pekin & Pekin
Pinsent Masons
Rostron Parry Ltd
RTS Realtime Systems Ltd
Simmons & Simmons
SJ Berwin & Company
Speechly Bircham LLP
SunGard Futures Systems
Swiss Futures and Options Association
Total Global Steel Ltd
Travers Smith LLP
Wragge & Co

INTRODUCTION TO DERIVATIVES

INTRODUCTION TO DERIVATIVES

Introduction

“Derivatives” are financial instruments whose primary role is to provide a means of “hedging” against future negative price movements across a range of exposures, including particularly in equities, bonds, credit, commodities, currencies and interest rates and indices. Their value is generally “derived” from the price of one or more underlying assets, rates or indices and, unlike the case with physical dealings, the vast majority of them are cash settled.

Using derivatives to control price risk has been an integral part of trade in commodities worldwide for centuries. Their emergence was generated by the need to develop some form of price certainty in the face of sudden fluctuations in commodity prices caused by, for example, irregular or cyclical production, changing weather patterns or political instability. The dismantling of Bretton Woods, which led to the privatisation of the process of stabilising money rates, resulted in derivatives being extended to cover the raw material of the financial world, namely, money and financial instruments.

Uses

- **Hedging:** At its simplest, a hedge is put on by taking a position in a derivative instrument that is equal and opposite in price sensitivity to an underlying cash or physical position or money rate, so that losses in the underlying position will be offset by a commensurate gain in the derivatives position, i.e. “going short” (to protect an existing position) or “going long” (to protect an anticipated physical position).

In this way, financiers and borrowers can fix the cost of lending/borrowing money; importers and exporters can protect themselves from adverse movements in exchange rates; producers can lock in their profits; factories can hedge against sudden rises in the cost of manufacture; lenders can hedge concentrations of credit risk; and farmers and growers are able to protect their budgeted farm profits. At the same time, managers of equity funds or individual portfolios can use derivatives to hedge against sudden fluctuations in the value of securities and/or undertake a whole range of investment strategies in diversified markets not otherwise available to them.

In the retail sector, their use has facilitated the development of fixed rate mortgages for homeowners, more stable retail prices for foodstuffs and, for the consuming public, interest-free credit.

- **Trading and Investment:** While the vast majority of market participants use derivatives as risk management / transfer instruments, some organisations trade them with a view to actually taking physical delivery of the underlying asset, others simply trading on price. In commodity derivatives markets, the non-commercial market participants play a fundamentally important role in sustaining high levels of market liquidity and taking the other side of the hedging positions of commercial market participants. This is because the trading motivation of a physical market participant is to protect trade profits, whereas the motive of the financial market participant is to secure a profit on anticipated price movements.

Types of Instruments

Derivatives cover a very broad range of contracts, which generally fall into three principal categories:

- **Futures (often called in the OTC markets “forwards”):** Agreements to buy or sell a commodity, financial instrument or other underlying property for an agreed price, but with delivery taking place on a specified date or range of dates in the future.
- **Options:** Agreements under which one party (i.e. the purchaser) acquires the right (but not the obligation) to buy (in the case of a “call option”) or sell (a “put option”) a commodity, financial instrument or other underlying property (including other derivatives) at a price ((the “strike price”) agreed at the time of the agreement (including an additional payment or “premium” for that right).
- **Swaps:** Agreements to “swap” a series of cash-flows determined by reference to an underlying instrument, product, index or notional amount (e.g. fixed rate of interest versus floating rate). These are part of a category of product called “contracts for differences” because the underlying product is not capable of delivery and has to be cash settled.

These instruments may generally be traded “on-exchange”, i.e. on a “regulated market” (or some other regulated multi-lateral trading facility) or off-exchange (otherwise over-the-counter (OTC)). The choice will depend upon the underlying needs of the counterparties and the prevailing liquidity of the market in question.

Characteristics

Whether derivatives are traded OTC or on a regulated exchange or some other execution platform, they all have a number of unique and shared characteristics:

- The ability to hedge/profit in falling as well as rising markets;
- The existence of a wide product range;
- Deep, liquid markets in the benchmark contracts;
- The ability to create immediate exposure quickly and often at low cost;
- Contracts can be traded on payment of a small proportion only of the total price exposure;
- Provision of a mechanism for formulating a view on forward prices over a chosen timeline.
- Targeted risk transfer through the blending of different derivative products covering different underlyings (e.g. bond risk, credit risk, currency risk, etc.)

The **OTC markets** are essentially wholesale professional markets (e.g. precious metals/bullion, foreign exchange, oil, interest rates, equity and credit), in which derivative contracts are traded bilaterally between banks, other financial institutions and large corporate organisations, often in large size. Most OTC contracts are comparatively straightforward and resemble exchange-traded contracts, whereas others are designed to cover complex underlying risks. The advantages of OTC transactions are:

- They can be tailored to meet the individual needs of the parties (thereby reducing “basis risk” or the risk that the hedging instrument is not precisely matched to the underlying asset or exposure)
- They enable organisations to access products that may not be available on an exchange
- They enable organisations to choose their own counterparties
- While the market place is not itself directly regulated, dealings are executed with regulated firms
- Some OTC contracts are significantly more liquid than their exchange-traded counterparts (i.e. they can only be accessed off-exchange, such as the foreign exchange market).

Exchange-traded contracts are fully standardised contracts executed in regulated wholesale professional markets and cleared by regulated clearing houses. As such, they offer the advantages of:

- Centrally-regulated markets which are supervised by the relevant national authority;
- Dealings in standardised products which enable buyers and sellers to trade multi-laterally and to open and close positions more easily
- A clearing house guarantee, which assumes and reduces therefore the counterparty risk of each buyer and seller and protects parties from counterparty default
- Real-time transparent price formation and discovery and automated transparent post-trade processes
- Loss mitigation through daily calls for “margin” (i.e. a deposit based on a percentage of the full contract value and calculated daily according to historic/possible market movement).

Growing convergence across products, increasing standardisation and the complementary nature of the different markets has resulted in some exchanges looking to offer non-standardised instruments; others are providing valuation, collateral management and other “back office” services to OTC dealers; and others yet are offering central clearing facilities for standardised OTC transactions.