Explanatory Memorandum: Annexure C

An Examination of the South African OTC Derivatives Markets to Recommend Measures for Strengthening their Regulatory Oversight

"Major failures of regulation and supervision, plus reckless and irresponsible risk taking by banks and other financial institutions, created dangerous financial fragilities that contributed significantly to the current crisis."

G-20 Final Communique, September 2009

Contents

The OTC Derivatives Working Group

This report reflects the deliberations and recommendations of a Working Group, whose members were appointed from regulatory and industry organisations involved in the local derivatives markets.

Members:

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Attendees from the Financial Services Board:

The meetings of the Working Group were attended by a number of representatives from various departments of the Financial Services Board.

Annah Manganyi	-	Senior Manager, Capital Markets Department
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Executive Summary

1. Purpose of report

This report was commissioned by the Financial Services Board of South Africa, in response to a call by the G20 for certain measures to be implemented in the OTC derivatives markets of member countries.

These measures include specific timetables for changes to fundamental business practices of market participants, in order "'*to improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse*".

The report also addresses a recommendation contained in the 2008 Financial Sector Stability Assessment of the International Monetary Fund (IMF), in respect of the need to 'strengthen surveillance of the local OTC markets'.

2. Terms of reference

The report has been compiled by a Working Group, comprising regulators and industry representatives, with a mandate to propose specific recommendations to the South African Financial Services Board for compliance with the demands of the G20.

3. Background sections

The report provides some background information for the layperson in this highly technical arena. Section 2 examines the nature of derivatives and the organisation of derivatives markets, and section 3 provides an overview of local and international regulatory norms and objectives for these instruments.

4. International developments

Since the G20 communique in September 2009, there has been considerable progress in implementing the required measures. The central reporting and central clearing of transactions is already at an advanced stage in key markets, and new and higher standards and procedures for the management of counterparty credit and other risks are being applied across the industry.

There have also been significant initiatives by international and national regulators, including unprecedented and expansive legislation, with far-reaching implications. Much of the detail of this legislation remains unwritten, but is currently being developed by appointed authorities against statutory deadlines.

Section 4 provides a review of these international developments and progress.

5. Key issues

For regulation to succeed in ensuring both efficiency and stability for these markets, there are a number of key issues that need to be resolved satisfactorily:

(i) *The regulatory approach of the authorities* – some changes may be damaging to the OTC markets and/or have perverse consequences, if designed or implemented unwisely. It is important, therefore, that regulatory agencies and industry representatives work closely together in drafting appropriate measures.

(ii) *The identification of appropriate standardisation criteria* - many of the challenges and concerns, surrounding the successful migration of OTC derivatives to central trading and clearing facilities, hinge on this ambiguous concept.

(iii) *Appropriate risk management requirements for non-centrally cleared derivatives* - this could include micro-prudential risk management requirements, including collateralisation amounts and procedures, and/or higher capital charges in line with higher systemic risk.

(iv) *Exemptions for end-users* – it would be inappropriate to impose the risk management and other requirements of the professional market on non-professional entities, who use derivatives as part of a corporate risk management programme.

These issues are examined in section 5.

6. Working Group findings

Section 6 contains the key observations and findings of the Working Group, which include:

(i) The South African financial system and financial markets are well-behaved and generally well-regulated.

(ii) There are some systemic weaknesses in the local financial system and markets, including the OTC derivatives markets, which reflect similar issues elsewhere.

(iii) There are some weaknesses in the local regulatory framework of the OTC derivatives markets, which are typical of other jurisdictions.

(iv) There is a need for changes to some fundamental business practices in the local OTC derivatives markets, in line with developing international best practice.

(v) There is no need for radical or urgent measures, at this time.

(vi) The required focus of regulation should be on the integrity of the professional participants in these markets, and on the market infrastructure.

(vii) Any significant changes should be preceded by an impact study.

7. Recommendations

Section 7 contains the recommendations of the report, which fall into three generic categories, risk measurement and management, governance standards, and other important policy issues.

Recommendation 1 - Central reporting of OTC derivatives

Derivatives activities of licensed entities should be subject to a well-defined reporting system that allows regulators to monitor the potential for systemic problems.

Recommendation 2 - Central clearing of OTC derivatives

OTC derivatives should be standardised to the fullest extent possible and settled through a licensed central clearing counterparty (CCP). Where central clearing is not used, there must be adequate risk management arrangements in place to mitigate counterparty credit and other risks. Capital requirements for non-centrally cleared derivatives should reflect their incremental risk to the system.

Recommendation 3 - Licensing of professional participants

Professional participants in derivatives markets should be licensed by a relevant authority, operating under a statutory framework. There should be minimum entry requirements and comprehensive prudential standards for these participants.

Recommendation 4 - Code of conduct for professional participants

A code of conduct for professional participants in the OTC derivatives industry should be drawn up by the regulatory authorities in consultation with key stakeholders. All licensed participants and their employees and agents should be bound by its terms.

Recommendation 5 - Systemic risk assessment of OTC cash markets

The South African regulatory authorities should conduct a review of the systemic risks in the local non-derivative OTC markets.

Recommendation 6 - Legal and accounting certainty

Regulators should ensure legal certainty for OTC contractual arrangements e.g. ISDA agreements, and the effect of set-off netting rules contained in the Insolvency Act. They should also work towards clear and uniform accounting standards for derivatives instruments.

Recommendation 7 - Monitoring of international developments

The South African regulatory authorities should closely monitor international developments with respect to regulation and self-regulation of OTC derivatives markets, and respond with appropriate and timely work streams.

1. Introduction

1.1. Background

There is an unprecedented focus currently on the need to strengthen the regulatory framework of financial systems, in order to minimise the risk of crises that destabilise the real economy.

At the macro-level, it is clear that the regulatory authorities in many countries failed to identify and/or address the build-up in risk concentrations that led to the failure and near-failure of a number of systemically important institutions during the global financial crisis that erupted in 2008.

At the micro-level, many large financial institutions neglected prudent risk management and corporate governance standards, in pursuit of ever-greater profits. The resulting bailout of these institutions using taxpayers' money has fuelled considerable public outrage and accusations of 'moral hazard'.

The crisis originated in excessive and imprudent lending practices following an unprecedented boom in residential property prices in the United States and elsewhere. Such real-estate lending excesses have characterised many previous crises, but the severity of this one has been attributed to significant changes in financial intermediation over the last decade. These changes facilitated a far greater increase in credit assets than would otherwise have been possible.

In particular, the extensive use of securitisation techniques led to an unprecedented transfer of credit risk from the banking sector to non-bank financial institutions, which pushed credit risk premia to historic lows, and created a large 'shadow banking' sector outside the purview of the authorities. The result was the build-up of large systemic risk concentrations with inadequate regulatory oversight.

A key development leading up to the crisis was the huge and rapid increase in the outstanding volume of credit default swaps (CDS) and other credit derivatives. These instruments had become popular as an efficient, synthetic alternative to conventional on- and off-balance sheet products for credit risk transfer and mitigation. In many instances, they had become an integral part of the price discovery mechanism for credit risk, and a crucial component of overall credit market liquidity.

These innovative credit instruments had been transacted almost exclusively in the over-the-counter (OTC) financial markets. These markets are characterised by a variety of contractual and institutional arrangements for the buying and selling of a range of financial instruments; key features include the private nature of transactions, flexibility regarding contract terms, and the establishment of bilateral legal relations between the counterparties.

The OTC markets have long been regarded as unregulated, in contrast to the regulated exchange-traded markets. Financial exchanges are normally subject to specific rules concerning all important aspects of their business, including governance standards and risk management procedures, and they are usually characterised by the centralised trading and clearing of standardised instruments.

Particular concerns shared by regulators, in respect of OTC markets, have traditionally focused on their general lack of transparency, when compared to exchanges, and the fragmented and uneven risk management arrangements employed there, which often

produce long 'risk chains' between a relatively small number of systemically important financial institutions.

Following the collapse of the US investment bank Lehman Brothers in September 2008, there was considerable concern in the financial markets regarding the solvency of many of these institutions. At the height of the crisis, a particular concern was the lack of reliable information concerning the credit and other exposures between systemically important institutions, especially in respect of derivative instruments.

A recent paper issued by The Joint Forum[1], to investigate the crisis, listed the following weaknesses of these markets:

- Inadequate risk governance
- Inadequate risk management practices and infrastructure
- Insufficient use of collateral
- Lack of transparency to both regulators and participants
- Vulnerable market infrastructure

A number of similar reports by leading international bodies have also referred to the need for some fundamental changes to the ways in which participants in the OTC derivatives markets conduct their businesses.

1.2. Terms of Reference

The Financial Services Board of South Africa has commissioned this report in accordance with measures called for by the Group of Twenty Finance Ministers and Central Bank Governors (G20). It also intended to address a recommendation contained in the 2008 Financial Sector Stability Assessment of the International Monetary Fund (IMF) "to strengthen surveillance of the local OTC markets".

Following the Pittsburgh Summit in September 2009, the G-20 Leaders called for the implementation of a number of key measures to reform the financial markets. These measures were broad, but contained a number of specific initiatives for the OTC derivatives industry and its regulators to pursue, in order to "*improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse*".

- All standardised OTC derivatives contracts should be traded on exchanges or electronic trading platforms, where appropriate.

- All standardised OTC derivatives contracts should be cleared through central counterparties by end 2012, at the latest.

- Non-centrally cleared contracts should be subject to higher capital requirements.

- OTC derivative contracts should be reported to trade repositories.

[1] The Joint Forum comprises representatives from the Basel Committee on Banking Supervision, the International Organisation of Securities Commissions, and the International Association of Insurance Supervisors.

1.3. Methodology

The report reflects the views of a Working Group, which was set up to recommend specific measures to strengthen the regulatory oversight of the OTC derivatives markets in South Africa. The Members of the Group represent a broad range of regulatory authorities, self-regulatory institutions, and industry associations, from the local financial markets.

The Group met on several occasions during the period from April to October 2010, and detailed minutes were recorded of its discussions.

Significant consideration was given to recent international initiatives to address weaknesses in OTC derivatives markets, and their relevance to the local landscape. This was to ensure that any recommendations proposed by the Group would, as far as possible, be compatible with global developments.

The Group decided against the use of a formal survey of market participants, preferring rather to rely on input from the appointed industry representatives, all of whom had appropriate knowledge of their constituents' derivative activities. It was agreed, however, that an opportunity should be provided for wider industry comment, before the recommendations contained in this report are implemented.

Several Members of the Group conducted informal interviews with key buy-side institutions and bank derivatives dealers, with a focus on the following areas:

- Risk management processes
- Reporting in respect of corporate governance structures
- Accounting treatment
- Valuation methodology
- Areas of concern
- Examples of problems experienced

Feedback from these discussions has been included in relevant sections of the report.

1.4. The Addendum

The report represents the consensus views of the Working Group, subject only to specific objections in the Addendum.

2. The Derivatives Markets

2.1. Definition

The classic definition of a derivative refers to:

"…a contract whose value depends on (or derives from) the value of an underlying asset, reference rate or index".[2]

Accordingly, the values of derivatives depend in some way on the values of the instruments in an underlying market, sometimes referred to as the 'cash market', which is the market for immediate delivery of the particular instrument or commodity to which the derivative refers.

There are some important and subtle aspects of this relationship, which explain many of the risk characteristics and other important features of derivative instruments:

(i) The link between cash and derivative markets is based on a general arbitrage relationship, according to which the essential economics of derivatives can be replicated by transactions in the underlying markets.[3] This provides boundaries for the prices of derivatives, as well as a means of hedging the risks which they pose. In practice, however, the synthetic replication of derivatives is based on mathematical models of varying degrees of abstraction and reliability, especially during stress periods.

(ii) Derivative values are also affected by other variables, unconnected to the value of the underlying cash instrument; these include financing costs, volatilities, and correlations.

(iii) The value of some derivative instruments is a complex non-linear function of the value of the underlying instrument, and the relationship between the two can be discontinuous, with derivatives suddenly 'jumping' in value, even following a modest change in the underlying market price.

(iv) Derivatives are generally unfunded while the underlying cash instruments are funded. Thus, the link between prices in the two markets is also affected by considerations of liquidity, which is not explicitly incorporated into most pricing models.

(v) Some derivatives exist in the absence of a transparent underlying market. For example, credit derivatives were often traded between counterparties on underlying assets that were not themselves traded, and thus had no visible or unambiguous market value.

(vi) In several key areas of financial intermediation, price discovery actually takes place in the derivative market, and it is the underlying cash market that derives its value from the prices of traded derivatives. For example, the huge liquid interest rate swap market in many countries is often the pricing benchmark for less liquid underlying debt instruments, rather than the other way around.

(vii) Derivatives markets are often open outside the normal hours for the trading of the underlying cash markets. For example, futures on share indices such as the S&P 500 trade around the clock, even though the underlying share market is only open for a

[2] - Group of Thirty (1993); a similar definition to the one in the local Securities Services Act 2004.
[3] For example, a forward contract to buy a share can be theoretically replicated by an immediate purchase of the underlying share and a cash borrowing to fund that purchase.

limited number of hours each day. As a result, the opening prices of the cash market instruments are initially derived from the market prices at which the derivatives have been trading.

(viii) Derivatives markets are often larger than the underlying markets, to which they refer.[4]

2.2. Instrument types

In essence, there are two basic types of derivative instrument: forward-based and option-based. These may be stand-alone, with a variety of locally-preferred names, or may be found embedded in other instruments, often known as structured products.

2.2.1. Forward-based contracts

Forward-based contracts represent an agreement to exchange an underlying instrument, commodity, or defined cash flow at a pre-agreed price at some point or points in the future. The exchange may be physical, whereby the parties swap full principal amounts in settlement of their obligations under the contract, or notional, whereby a single cash payment between the parties is all that is required.[5]

This category of derivative includes the instruments known as forward contracts, futures contracts, and swaps.

2.2.2. Option-based contracts

Option-based contracts provide the right to one of the parties to choose whether or not to buy or sell something at a pre-agreed price at some point or points in the future. This 'right to choose' makes options more complex than forward-based derivatives, and they require more specialised risk management skills and procedures.

This category includes a variety of vanilla and exotic instruments, and the instruments known as warrants, which are often listed as conventional securities, rather than as derivatives per se.[6]

There are also options on futures, swaps, and even on other options, known as compound options.

2.2.3. Structured products

Derivatives are often 'embedded' in other instruments such as bonds or notes to create structured products, typically to provide an enhanced yield for investors or a lower borrowing cost for issuers. These products are often bought or sold with no explicit reference to the embedded derivative, even though this radically alters the value and risk profile of the instrument.

[4] In South Africa, the traded volumes of some derivatives contracts, such as those on foreign exchange, equities, and agricultural products, exceed the size of their respective underlying markets.
[5] Known as 'net cash settlement' or simply 'cash settlement'.
[6] Common names for options and combinations of these instruments include calls, puts, caps, floors, swaptions, spreads, and collars. The names of exotic option instruments are numerous, reflecting the huge variety of payoffs available; they include barrier options, Asian- and American-style options, cliquets, range accruals, and lookbacks, to name but a few.

Structured products are popular with a number of end-users in the investment world, who require highly customised products to meet their needs, which often include some form of capital preservation guarantee, with upside participation in an equity-based, commodity, or other index. These needs are often best served with a combination of cash and derivative instruments, such as a bond and a call option, to create a structured product tailored to the investor's specific requirements.

These products remain popular in South Africa and internationally, despite some allegations of opaque and unfair pricing, as well as a typical lack of secondary market liquidity and high unwinding costs. There have also been reports of their use to evade asset allocation and other regulations.

2.3. Risks associated with derivatives

In general, derivative instruments are affected by the same risk factors as the underlying cash instruments, and it is possible to categorise these under the conventional typology of credit, market, liquidity, operational, and legal risks. Certain of their features can, however, amplify the risk, speed, and magnitude of losses from adverse events.

2.3.1. Leverage

Transactions in derivatives markets are rarely, if ever, fully funded, which provides an opportunity for leverage by users. Although a number of mechanisms exist to provide leverage in underlying cash markets, for example via the use of repurchase agreements, leverage is generally easier and quicker to obtain in derivatives markets.

The use of leverage increases the speed and extent of potential losses, and can lead to financial ruin far quicker than an unleveraged position. This obviously places a premium on timely and sound risk management policies and controls, especially in respect of participation by unsophisticated retail users in these markets.

Some derivatives instruments are explicitly designed to leverage sensitivity to one or more risk factors, which further amplifies potential losses; examples include leveraged swaps, and many exotic options.

2.3.2. Timing of settlement

Derivative transactions are normally contracted to settle cash flows between the parties at a date or dates beyond the normal underlying market settlement horizon, which is typically a few days. While many of these transactions are of a relatively short duration, typically a few days up to a few months, they can last for several years, for example in the interest rate swap market.

The deferred settlement of derivatives has important consequences for the credit risk they pose, which is measured by their replacement cost, should one of the parties to the contract default. This cost becomes potentially greater, the longer the period until settlement, which can lead to a substantial build-up of credit risk, especially in the absence of effective collateralisation arrangements between the parties.

2.3.3. Complexity

Derivatives are generally more complex than the instruments found in the underlying cash markets, since their value is often a complex function of the values of one or more of those instruments.

Conventional methods of pricing and hedging derivatives rely on 'no-arbitrage' or 'synthetic replication' models, which involve the use of portfolios of underlying cash instruments to mirror the economic behaviour of a derivative instrument. In this way, a derivative contract can be sold to a client, and the risk to the dealer can be hedged by assembling the appropriate cash portfolio to mirror the economic behaviour of the derivative. The price of the derivative is then simply the cost incurred by the dealer in setting up and maintaining this portfolio, plus a profit margin.

Many of these synthetic replication models abstract from important real-world issues, such as changes in market volatility and liquidity, which can significantly affect the cost of hedging a derivative instrument in this way. As a result, the correct price for a derivative instrument can only truly be determined after it has ceased to exist, by which time the real cost of hedging it is known. This is obviously a problem for sellers of derivatives, since prices are generally fixed in advance.[7]

Many derivative models have turned out to be flawed in some key respects, and there have been episodes, both locally and internationally, of substantial losses from 'model risk'. While this is normally more of a concern for 'exotic' or non-standard instruments, even some vanilla derivatives use models that require careful and subjective interpretation and modification.[8]

End-users of derivatives often struggle to assess fair values for these instruments, due to the complexity of the modelling issues and/or the availability of reliable input data. These users are often forced to rely for valuations on the vendor of the particular instrument, which creates a potential conflict of interest.[9]

2.3.4. Accounting treatment

Derivatives are often less transparent in financial statements than equivalent transactions in the underlying markets, largely as a result of their traditional accounting classification as 'off-balance sheet'. This has allowed many transactions involving their use to escape the attention of regulators, investors, and even auditors.[10]

Recent changes to accounting standards have sought to ensure that derivatives are recorded on the balance sheet at fair value, but there are exceptions to this general principle. The key standard in this regard, IAS 39, has been the subject of much debate and disagreement, and is not applicable in the United States, which relies on FAS 133 of US GAAP.

[7] This can be especially problematic for the pricing and hedging of option-based derivatives.
[8] For example, the venerable Black-Scholes model is still widely used for option pricing, despite many of its assumptions being recognized as incorrect.
[9] The provision of deliberately misleading valuations for derivative instruments was a key factor in the litigation between the US derivatives giant Bankers Trust and several of its clients in the early 1990s.
[10] Derivatives have been used extensively in creative accounting schemes, such as those employed by Enron.

2.3.5. Liquidity

Some derivative instruments are extremely illiquid, which impacts their market and credit risks, and raises issues regarding their timely and accurate valuation.

Even when the derivative market is liquid, liquidity risk can still be a problem if the derivative market is bigger than the underlying market, especially when a derivative contract calls for physical settlement of the underlying instrument. This problem was particularly evident in the credit derivatives markets, but has also previously surfaced with some equity derivatives.[11]

2.3.6. Legal uncertainty

It is often argued that enforceability represents the greatest risk that participants face in certain types of derivatives transactions, and there have been instances of courts refusing to enforce derivatives contracts, for a variety of reasons.

An ongoing concern in most jurisdictions, including in South Africa, relates to the validity of key terms in 'master agreements', which are used by counterparties to govern their legal relationship in the OTC derivatives markets. In particular, provisions that permit the setting-off of obligations, in the event of insolvency, often conflict with legal rules.

2.4. Market profile

2.4.1. Scope and participants

Derivative instruments are used for a variety of purposes by a number of professional and non-professional participants across a wide range of asset classes. The major uses include speculation, investment, risk management ('hedging'), and economic and regulatory arbitrage.[12]

The markets have traditionally been dominated by large banks, institutional investors, and corporations, and benchmark pricing reflects the typical high credit rating of many of these entities. For example, the largest market is for interest rate swaps, and it is widely acknowledged that the benchmark swap curve is in respect of AA-rated entities.[13]

The last several years have witnessed increased participation from retail investors in these markets, in South Africa and elsewhere, largely as a result of extensive product development and marketing initiatives by the large professional firms. These include listed single stock futures and warrants, as well as non-listed 'contracts for difference' (CFDs).

2.4.2. Market size

The market for OTC derivatives reached a peak of more than $680 trillion of gross outstanding notional value by June 2008, which represented a 535% increase from seven years earlier. [14] At the same time, the amount for exchange-traded contracts was $82 trillion.

[11] Derivatives have previously been used to deliberately 'corner' markets suffering from short supply.
[12] Arbitrage in derivatives markets is a generic term to refer to a number of techniques to exploit pricing and/or regulatory anomalies.
[13] The original Basel Accord explicitly acknowledged the higher credit rating of derivative counterparties by according them a 50% risk-weighting.
[14] The data quoted here is all taken from the regular market surveys conducted by the BIS and ISDA – see www.bis.org and www.isda.org .

Eighteen months later, these figures had declined to $615 trillion and $73 trillion respectively. [15]

Gross outstanding volumes of derivative instruments overstate the true size of these markets, however, and the figures for end-2009 show an outstanding *gross market value* for OTC derivatives of $21.6 trillion, which is a considerably more modest figure.[16]

The latest OTC data show that 73% of the outstanding notional amount of derivatives is accounted for by interest rate derivatives, mainly single-currency swaps (IRS), and forward rate agreements (FRAs). Foreign exchange and credit derivatives represent 8% and 5% respectively of this total, while equity and commodity derivatives represent 1% and 0.5%.

Figures for the South African market are available from data collated by the South African Reserve Bank, but only in respect of banks. These figures show outstanding volumes and turnover by asset class for exchange-traded and OTC instruments. For June 2010, the report shows outstanding volumes of ZAR 24 trillion for OTC derivatives, and ZAR 800 billion for those traded on exchanges.

In line with international norms, the local derivatives data show the substantial dominance of interest rate and foreign exchange instruments in the OTC markets, and that of equity and commodity derivatives on exchanges.

The local data does not include non-bank institutions, and suffers from a number of defects, especially with respect to the type of data submitted and collated. This point is considered further below, and informs one of the recommendations of this report.

2.5. The organisation of derivatives markets

2.5.1. Exchange-traded derivatives

A derivatives exchange, sometimes known as a futures exchange, is a central financial market for the buying and selling of futures contracts on a range of commodities and financial instruments. It can operate in a physical location or via an electronic network, and sometimes both.

Exchanges are usually licensed and closely supervised by an appointed statutory authority, which sets comprehensive rules in a number of areas, including:

- The licensing of and prudential requirements for professional participants.
- The establishment and licensing of centralised and automated trading, clearing, and settlement facilities, designed to ensure pre- and post-trade transparency and adequate risk management.
- Measures to safeguard the interests of consumers.
- Mechanisms for detecting and punishing errant behaviour.

[15] OTC and exchange data are not directly comparable, due to the multi-lateral netting and generally shorter terms typical of exchange-traded instruments.
[16] Gross market values show the cost of replacing all contracts at current prices. Gross credit values are even lower than this figure, due to the existence of legally enforceable bilateral netting agreements.

The early derivatives exchanges were created to formalise and secure contractual and risk management arrangements between interested parties for physical commodity transactions, known as 'forward contracts', many of which were not honoured. Early on, these parties realised the importance of the standardisation of contracts, in order to increase liquidity and thus make it easier for willing buyers and sellers to transact, as well as to replace defaulted contracts. This led to the development of standardised 'futures' contracts, which now include futures on financial instruments as well as on commodities.[17]

Most major derivatives exchanges are public companies, or divisions of public companies, including the Johannesburg Stock Exchange in South Africa (JSE), which operates the only licensed derivatives exchange in the country. As such, they do not normally possess an explicit government guarantee, in the event that they could not fulfil their obligations. At the same time, the sheer size and value of the transactions concluded there renders them systemically important institutions, especially given a number of large-scale mergers of these exchanges in recent years.

Derivatives exchanges have a long and successful record of meeting their obligations, even during times of stress, due to a number of key features of the arrangements typically employed there.

(i) Standardisation and fungibility

Derivative contracts traded on an exchange are generally standardised, with precise specifications, notional values, and maturities. These contracts are generally fungible within each class, and enjoy greater liquidity due to the concentration of all trading on a limited number of listed contracts.[18]

Standardisation has tended to deter some potential end-users of exchange-traded derivatives, however, including those who use these instruments for the hedging of commercial risk exposures. These users often have highly customised requirements in terms of specifications such as settlement method, timing, amount, and location.

Derivatives exchanges have tried to incorporate some flexibility into their contract specifications by, for example, allowing for an ex-post adjustment to the contract price, to permit a range of delivery options and specifications.[19]

(ii) Central trading platform

The centralisation of all trading on the order book of the exchange provides comprehensive and transparent information concerning market activity and counterparty exposures.

Prices and trading volumes are visible to professional and non-professional participants, who all have access to the available prices, with varying degrees of delay for the latter. These prices are streamed from multiple market participants, acting both as agents and principals to transactions, with clear rules and procedures in respect of both.

[17] Derivatives traded on exchanges also include options on futures, and other product names are also used, including index futures, swap futures etc.

[18] Fungibility refers to the extent to which one futures contract is perfectly substitutable with another one of the same class, and represents an important element of standardization, both legally and economically.

[19] Delivery obligations of US Treasury Bond futures contracts can be settled with a choice of several underlying bonds, and many commodity futures contracts permit a range of delivery options, with appropriate price adjustments. A local initiative, 'Can-Do' derivatives, has been internationally recognised for permitting the extensive customisation of product features for listed derivatives.

Most major centres impose 'best execution' rules which require that all transactions be concluded at the best available buying or selling price for the particular derivative instrument, irrespective of the identity of the entity wishing to transact.

Some exchanges, including the JSE, allow for certain transactions to be negotiated privately between counterparties, and only then booked via the central trading system.

(iii) Clearing, settlement, and the management of counterparty credit risk

Clearing refers to a number of post-trade operations, including trade-matching, confirmation, registration, and related risk management functions such as netting, collateralisation and margining procedures. Settlement refers to the transfer of money and/or assets to discharge legal obligations.

Trades on an exchange are usually cleared and settled through a central clearing counterparty (CCP), known as the clearing house, which is also a regulated and licensed entity. The clearing house has strict rules concerning prompt and automated deal matching and submission, which significantly reduces operational risks in the settlement process.[20]

The clearing house also reduces credit risk by substituting itself as the principal counterparty to all of the trades executed via the exchange, becoming the 'buyer to every seller' and the 'seller to every buyer'**.** This practice, known as novation, permits the multilateral netting of exchange members' obligations to one another, and their replacement with a far smaller number of contracts with a single risk-averse counterparty.

To protect itself from the consequences of a member defaulting, the clearing house employs a system of **'**margining', which is designed to ensure that potential losses from a default are minimised. This entails each member placing a good faith deposit with the clearing house for each contract traded, known as initial margin, and a daily settlement of profits and losses on all open positions, known as variation margin.

The successful mitigation of credit risk is recognised by the Basel Accord, which recommends that a zero counterparty credit risk-weighting be applied to approved clearing houses, when calculating regulatory capital requirements.

Although a clearing house only collects margin from its members, they in turn are required to impose the same or higher margin requirements on their clients.

(iv) Limits and curbs

Other features of some derivatives exchanges include limits for permissible open interest, at both an individual and aggregate level, and price curbs to limit excessive fluctuations during periods of market turbulence.[21]

2.5.2. Over-the-counter derivatives

85% of all derivative transactions take place outside exchanges, in the over-the-counter (OTC) markets, according to data from the BIS.[22] These markets are often labelled as 'unregulated' since, in most centres, there are very few rules laid down by the authorities that directly refer to their activities. This is despite the fact that most of the professional

[20] Derivative transactions on the JSE are cleared by the Safex Clearing Company Ltd (SAFCOM).
[21] These limits are not currently employed in the South African market.
[22] BIS 2008

participants in these markets, such as banks, are regulated in terms of their general activities and conduct, and these markets also fall within the scope of a range of common law and statutory legal codes.[23]

The major institutions in the OTC markets also subscribe to a number of self-regulatory codes and 'protocols', led by the International Swaps and Derivatives Association (ISDA), which has developed the status of a 'quasi-regulator' for the industry.

OTC derivatives are sometimes referred to generically as 'swaps', which represent the largest type of derivative instrument in the market, but this category also includes forward contracts, options, and warrants, as well as structured products that contain embedded derivatives.

The OTC derivatives universe is vast and varied, even though the majority of transactions are vanilla interest rate and foreign exchange swaps. These instruments typically share certain features.

(i) Bilateral legal relations

The essence of an OTC transaction is the establishment of bi-lateral legal relationships between parties. Accordingly, it is regarded as essential best practice that an OTC derivative be concluded under a relevant bilateral framework agreement, typically an ISDA Master Agreement. This document contains general terms and conditions, such as provisions relating to payment and close-out netting, representations, basic covenants, and events of default.

Once a master agreement is in place, subsequent transactions between the parties can usually be concluded with a minimum of paperwork, in the form of a short 'confirmation' of the key economic terms.

Close-out netting provisions in master agreements are a key element of the credit risk management of OTC derivatives, as we shall see below. These provisions stipulate that, upon the insolvency or other event of default of a counterparty, all outstanding positions between the parties are reduced to a single net amount. This can help prevent the practice known as 'cherry-picking', which refers to the ability of a liquidator to selectively enforce only those contracts with a positive value. This practice has serious risk management implications for OTC derivatives markets, insofar as it prevents the netting and termination of transactions, which increases the risk of a chain of interrelated defaults, and thus systemic risk.

The legal enforceability of netting provisions in ISDA agreements is fairly well established in most centres for derivatives trading, but there is still some uncertainty in some jurisdictions, including South Africa.

(ii) Customisation and innovation

Unlike the majority of exchange-traded derivatives, the parties to an OTC derivative transaction are free to negotiate the specific terms of the contract, which is especially useful for end-users of these instruments seeking to tailor the contract specifications. [24]

[23] In South Africa, these range from laws covering the provision of financial advice, through to the combating of money laundering and the enforcement of exchange controls.
[24] According to the 2009 ISDA Derivative Usage Survey, 94% of Fortune 500 companies use derivatives for hedging.

This flexibility leads to significant innovation in OTC derivatives markets, but also generally less standardisation and liquidity, and greater complexity. As a result, valuation disagreements are more likely to arise, especially in the absence of a central clearing counterparty as independent arbiter of contract values.

(iii) Decentralised trading

OTC derivatives transactions are executed either via the phone or electronically. Transactions between professional participants are often via inter-dealer brokers, who greatly assist with the transparency of prices to these participants, via the provision of multi-participant platforms for price matching and deal execution.

End-users of OTC derivatives typically use either the phone, or a proprietary electronic dealing platform provided by a professional participant, which provides access to that participant's prices only. This limits pre-trade pricing transparency for such users, who are not permitted access to the inter-dealer brokers. Prices are available on information systems of third party vendors, such as Bloomberg and Thomson Reuters, but these are only for standardised instruments, and are generally for indication purposes only.

In practice, end-users overcome this 'information asymmetry', and achieve greater transparency, by simultaneously requesting prices from several professional participants.[25]

(iv) Decentralised clearing and settlement

OTC derivative markets have traditionally utilised a variety of bi-lateral arrangements for the clearing and settlement of transactions, and post-trade processing has typically necessitated significant manual intervention, with a resulting increase in operational risk events.

The bi-lateral clearing of OTC derivatives markets has also led to a proliferation of redundant contracts and interconnected counterparty credit exposures, as a result of parties writing offsetting contracts to close out existing positions.

There has been significant progress in recent years, however, and the clearing and settlement of OTC derivatives is becoming more automated and centralised. This has been assisted by the development of a number of important third party services for automated trade affirmation and confirmation, collateral management, and even centralised clearing facilities, similar to those provided by the clearing houses of derivatives exchanges. [26]

(v) Mitigation of credit risk

Unlike their exchange-traded counterparts, OTC derivative transactions have not historically been subject to formal collateralisation and margining requirements, with many transactions involving no exchange of collateral whatsoever.

The ISDA 2010 Margin Survey reports that 70% of all OTC derivative trades executed during 2009 were subject to collateral arrangements, as part of a rapidly growing trend; this increases to 93% for credit derivatives [27]. The Survey shows that the category of counterparty with whom the highest trades are collateralised was hedge funds, and the lowest was with non-financial companies (47%). ISDA argues that many of these users do

[25] Sometimes 'two-way' prices are requested, which means that the quoting dealer must show the respective prices at which he is prepared to both buy and sell the derivative, in order to ensure that these prices are not significantly above or below the fair value of the instrument.
[26] 'New developments in clearing and settlement arrangements for OTC derivatives' – CPSS March 2007
[27] However, other studies have shown that over half of OTC derivatives transactions are uncollateralized – ECB 2009.

not trade derivatives frequently enough to justify the operational burden and expense associated with the complex collateral process.

OTC derivatives participants increasingly utilise an ISDA Credit Support Annex to formalise collateral arrangements. This Master Agreement 'add-on document' records agreement between the parties in respect of eligible collateral, valuation regularity, minimum transfer amount, and ratings triggers. In general, no initial collateral is exchanged, unlike exchange-traded derivatives.

ISDA reports in its 2010 Margin Survey that 82% of dealers utilise the collateral received in respect of OTC derivatives transactions for their own funding purposes, known as 'rehypothecation'. As a result of problems experienced during the crisis, some regulators and end-users are questioning the continuation of this practice.

2.6. OTC derivatives and systemic risk

2.6.1. Definition and assessment of systemic risk

One definition of systemic risk is:

"a risk of disruption to financial services that is (i) caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy." [28]

Possible criteria for assessing this include:

(i) *Size* - In general, the larger an institution or market, the more severe the potential disruption to clients and other counterparties.

(ii) *Substitutability* - If the function of a distressed market or institution cannot be replicated via alternative channels, the potential economic impact is increased.

(iii) *Interconnectedness* - A key element of a systemic crisis is a 'chain reaction' throughout the system, which is more likely when there is a large number of links between institutions.

2.6.2. Systemic risk features of OTC derivatives

There is little doubt that OTC credit derivatives played an important role in the recent crisis, and contributed to the overall loss of confidence and resulting fallout in the credit and wider financial markets.

At the same time, the majority of the other OTC derivatives markets continued to function without major difficulty during this period, mirroring the situation in previous crises. Some commentators even argue that these instruments reduce systemic risk rather than increase it, due to the manner in which they allow unwanted risks to be unbundled, priced, and transferred in an orderly fashion.

[28] IMF/BIS/FSB 2009

Certain features of these markets do, however, have the potential to amplify, if not actually cause, systemic crises in financial markets:

(i) Size

The rapid growth and sheer size of the markets for these leveraged instruments is clearly a concern. In many instances, they have developed to a point where they are an integral feature of the wider financial markets, especially for price discovery and liquidity, and some of their functions would be difficult to replace in a hurry.

(ii) Lack of transparency

The general lack of transparency of these transactions makes it difficult to assess the true financial condition of market participants, and their exposure to other counterparties.

Equally, the lack of comprehensive central reporting makes it difficult, if not impossible, for regulators to identify the build-up of systemic risk concentrations. This is especially significant given that derivatives are sometimes employed as a means of indirectly gaining access to a regulated market.[29]

(iii) Industry concentration

In the leading financial centres, origination and trading activity in these markets is concentrated in a few large firms, most of which are banks. These institutions rely on OTC derivatives activities for a significant portion of their earnings.

(iv) Clearing and settlement

The prevalence of bi-lateral arrangements in OTC derivatives markets increases interconnectedness via large risk chains between professional participants, and current arrangements for counterparty credit risk management are fragmented and inconsistent.

(v) Complexity

Some of these instruments are complex and illiquid, which can pose considerable valuation and risk management difficulties, especially during crises, which can make collateralisation arrangements complex and contentious.

(vi) Legal risk

The enforceability of OTC derivative agreements generally, and key provisions in respect of close-out netting specifically, remains a concern in many jurisdictions.

[29] For example, the use of credit derivatives permitted a host of non-bank entities to synthetically transform themselves into credit institutions, but with minimal prudential oversight from the responsible authorities.

3. The Regulation of Derivatives Markets

3.1. Financial regulation and supervision

The term *regulation* refers to a set of binding rules issued by a private or public body. The regulatory framework can be composed of primary enabling legislation, secondary legislation, principles, rules, and codes, and guidance or policy directives.

The term *supervision* is often used synonymously with regulation, but is sometimes used to refer to a less rigid and more qualitative exercise of powers of oversight and inspection.

In a global and interconnected financial world, regulations are becoming increasingly harmonised across jurisdictions, to ensure a level playing field and resist efforts at cross-border regulatory arbitrage. A number of international bodies have produced authoritative recommendations for best practices in this regard, and their adoption by local regulatory authorities is generally regarded as a key indicator of the soundness of a financial system.[30]

3.2. The nature of regulatory regimes

3.2.1. Regulatory philosophy and trend

The regulatory philosophy and framework of a particular jurisdiction is influenced by a number of ideological, legal, and historical factors. In recent decades, most leading financial centres have tended to move towards a 'market-orientated' approach to financial regulation, in line with the adoption of liberal economic policies generally.

This approach assumes that the market mechanism will best allocate financial resources efficiently, and that the self-interest of market participants will lead to effective and sufficient self-regulation. Advocates of this approach argue that government regulation should be limited primarily to remedying perceived failures in the market mechanism, since externally-imposed regulation can impede efficiency and innovation, and lead to perverse outcomes.

The recent trend has been for less regulation of the scope for participants to innovate and stretch beyond traditional functional and geographical boundaries, but for more regulation in terms of standards of disclosure, risk management, and corporate governance i.e. the 'rules of the game'.[31]

OTC derivatives are very much a phenomenon of the last few decades, and their regulation, or lack of it, reflects the dominant ideological thinking in respect of financial markets generally over this period.

3.2.2. Functional versus sectoral regulation

Financial regulation can be focused on specific functions of financial institutions, or on the different sectors of financial intermediation. Sector specific regulation, which is the norm in most countries including South Africa, tends to focus separately on institutions such as

[30] Examples include the work of several Basel Committees, the International Monetary Fund, the International Organisation of Securities Commissions, and the International Association of Insurance Supervisors.
[31] See Falkena et al. 2001, for an in-depth discussion of the regulation of financial systems and markets.

banks, securities firms, and insurance companies. Functional regulation, as the name suggests, focuses on specific activities across sectors.[32]

Critics of sector specific regulation point to the different prudential and other requirements afforded to different entities performing the same activities, and the resulting lack of a 'level playing field'. This provides the opportunity for regulatory arbitrage between regimes, and 'regulatory gaps' that allow access to unregulated participants, both of which can increase systemic risk and the potential for market abuse.[33]

3.2.3. Rules-based versus principles-based regulation

There is currently much debate taking place concerning the most effective approach to financial sector regulation, much of which revolves around a preference for either a rules-based or principles-based approach.

A rules-based approach requires that regulators prescribe detailed standards and procedures for how business should be conducted, backed up by a 'box-ticking' supervisory approach.

It is believed that rules provide greater certainty concerning requirements for compliance, and can therefore be used to quickly change behaviour, which explains why they are often considered following a crisis. At the same time, such an approach suffers from a number of weaknesses, especially when taken to the extreme; in particular, rules can stifle innovation, become quickly outdated, and can encourage institutions to find ingenious ways around them, known as 'regulatory arbitrage'.

A principles-based approach involves the regulator defining a set of general principles aimed at achieving normative outcomes, while leaving a lot of freedom regarding implementation to individual organisations, in the light of their particular circumstances.[34] It is argued that this approach is more consistent with a system of corporate governance, and transforms the role of regulators into that of 'governance supervisors', with the senior management of an institution tasked with ensuring compliance with the spirit of the principles, under the supervision of the regulatory authorities.[35]

For this to work, therefore, there has to be frequent and meaningful dialogue between the two, to ensure an understanding of what constitutes acceptable and unacceptable interpretations of the principles. There must also be appropriate sanctions for non-compliance, as well as systems to detect this.

A principles-based regulatory system without adequate supervision is a potential recipe for disaster, especially if one accepts that the incentives of managers of financial institutions are not always aligned with those of supervisors.

Most regulatory systems contain a mixture of principles and rules, and it is sometimes argued that too much emphasis is placed on this dichotomy, which is really more of a continuum. For example, the Financial Services Authority in the UK is a self-styled principles-based supervisor, but its 11 Principles are backed by an 8,500 page rulebook.

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[32] The Australian financial system is an example of predominantly functional regulation.

[33] To address this, the Joint Forum of the Basel Committee and the G-20 have both called for greater consistency in the regulation of similar instruments and of institutions performing similar activities, both within and across borders.

[34] An example of the general wording of a principle, taken from the 11 Principles of the UK's FSA, is "A firm must conduct its business with integrity."

[35] See Quintyn 2010

3.3. The objectives of financial regulation

The serious risks posed by financial crises to the real economy underscore the importance of adequate regulation and supervision of the financial markets and financial institutions. These institutions include the custodians of a nation's savings, and the entities responsible for critical services such as payment facilitation and credit extension.

The three specific objectives of financial regulation can be summarised as follows:

(i) Reducing systemic risk
(ii) Ensuring that markets are fair, efficient, and transparent
(iii) Protecting investors

There are a number of important functions that arise from these objectives: -

- *Determining and enforcing prudential standards for institutions*. Such standards include capital adequacy and reserve requirements for banks, through to restrictions on asset allocations and leverage for investment institutions.
- *Imposing minimum entry requirements* such as 'fit and proper' criteria and capital resources.
- *Prescribing standards of behaviour* e.g. advice given to clients and disclosure of activities.
- *Delineating functional responsibilities.*
- *Detecting and punishing errant behaviour* such as insider trading and market manipulation.
- *Establishing mechanisms for market support in times of crisis*.

In addition to micro-prudential and market integrity regulation, the recent financial crisis has underscored the importance of 'macro-prudential' policies for financial stability. These policies focus on systemic inter-linkages and risk concentrations across the different financial sectors, and have recently been emphasised by the G-20:

"… national financial regulatory frameworks should be reinforced with a macro-prudential overlay that promotes a system-wide approach to financial regulation and oversight and mitigates the build-up of excess risks across the system."

A key aspect of macro-prudential policy, it is argued, is ensuring safe and sound post-trade processing and settlement arrangements in systemically important markets. Such processes have often been dismissed as 'mere plumbing', but are increasingly regarded as the 'central nervous system' of the financial system.[36]

3.4. The history of derivatives regulation

3.4.1. Early regulatory initiatives

Derivatives are often regarded as the 'enfants terribles' of the financial world, largely due to their association with a number of sensational losses by both professional and non-professional end-users. This has periodically led to calls for these markets to be subject to tighter controls and oversight.

[36] Michael Moskow, Chicago Federal Reserve Bank.

While regulation of derivatives traded on exchanges was developed early on, the OTC markets were largely excluded from this framework. During this time, derivatives traded off-exchange were of dubious legality and were considered as 'wagers' or 'bets', similar to bets on other uncertain outcomes such as horse races and sports events.

Known as 'difference contracts', many of these were regulated in the US and UK under the common law 'rule against difference contracts'. Accordingly, they could only be legally enforced if it could be shown that at least one of the parties had a real economic interest which was being hedged by the transaction.[37]

3.4.2. Market growth and ISDA

The uncertain legality and enforceability of derivatives traded outside a regulated exchange continued until the 1980s, by which time the OTC markets had begun to develop a range of derivatives contracts on financial instruments, especially interest rate and foreign exchange swaps. This growth increased concerns and prompted calls for these markets to be brought within a concise regulatory framework, especially since much of their use was recognised as being for legitimate risk management purposes by a variety of end-users.

One consequence of this was the focus afforded to derivatives in the 1988 Basel Accord. Another was the development of standard terms and legal documentation for OTC derivatives by the International Swap Dealers Association, now known as the International Swaps and Derivatives Association (ISDA), which culminated in the publication in 1992 of the ISDA Master Agreement. This provided a number of contractual arrangements for netting agreements in the event of insolvency, and the definition of key terms.

The widespread adoption of ISDA, and other similar agreements for OTC derivatives, was seen by market participants as a sufficient self-regulatory initiative to deal with these instruments, notwithstanding uncertainty regarding the legal enforceability of certain provisions.[38]

3.4.3. Derivatives disasters

Continued rapid growth and a number of sensational losses in the early 1990s, by both professional and non-professional users of derivatives, led to renewed calls for more direct regulation of OTC derivatives. Of particular concern was the proliferation of increasingly exotic mutations of standard derivatives, and allegations from end-users of inadequate risk disclosure and improper conduct by some professional participants.[39]

The industry responded with a number of initiatives to allay the concerns of the authorities, principally by formulating codes of best practices for their members. One such initiative was a report by a number of industry professionals under the auspices of the Group of Thirty. This report contained twenty recommendations for how firms should manage their derivatives activities, with an additional five recommendations for regulators.[40]

[37] The U.K. authorities eliminated the rule against difference contracts in 1986, which is regarded as one of the main reasons for the size of the OTC derivatives industry in that country (43% of the global total – BIS).
[38] Other agreements include BBAIRS, FRABBA, IFEMA, and ICOM.
[39] Famous episodes include end-users such as Metallgesellschaft, Allied Lyons, Orange County, and Proctor & Gamble.
[40] Global Derivatives Study Group 1993

These recommendations included common sense advice regarding senior management oversight of derivative activities, the adoption of best practices for valuation and risk management, and the importance of adequate legal documentation.

3.4.4. Liberalisation

In 1992 the Futures Trading Practices Act gave partial recognition to the legality of OTC derivatives in the United States, insofar as it permitted certain swaps to be exempted from the requirement that derivatives should be traded on an approved exchange. The Commodity Futures Modernisation Act in 2000 finally removed any lingering doubts about the legality of the OTC derivatives market in that country.

Many commentators ascribed this enactment to the prevailing 'laissez-faire' political environment under a Republican government and the highly influential views of the then Chairman of the Federal Reserve Bank, who was a fervent supporter of self-regulation for financial markets. The years immediately following this decision witnessed explosive growth in all types of OTC derivative instruments, and significant increases in the volumes of credit and commodity derivatives.

Developments in other major centres for derivatives followed the US, with some leads and lags in terms of regulatory intervention. For example, the United Kingdom established the legal certainty for OTC derivatives earlier than most other countries, which is often cited as an important factor in the UK's predominance in the industry.

The situation today in most major financial systems is one of two adjacent derivatives markets, fulfilling similar functions, but subject to different degrees of regulatory supervision and risk management practices. This is despite the fact that there is significant overlap between professional participants, asset classes, and types of instrument. For example, the portfolio of a typical professional participant may include both OTC and exchange-traded derivatives, sitting side by side, with one being used to hedge the risks of the other.

3.5. The South African regulatory authorities

In 1971 the South African Department of Finance transferred responsibility for the regulation and supervision of all non-banking institutions to the Financial Services Board, and the responsibility for banks to the South African Reserve Bank.

This system of regulation has coped adequately with a number of crises, and the 2008 Financial System Stability Assessment of the IMF remarks on the "*modern and generally effective*" regulation of the South African financial system. It does, however, refer to the excessive inter-linkages in the financial sector, which make supervisory cooperation critical.

"There is a need to strengthen supervision of conglomerates with a focus on risks that span more than one sector, and to further promote cooperation, consistency, and effectiveness among regulators."

The report also remarked on the need to "*strengthen the surveillance of the OTC markets*".

3.6. Regulation of listed derivatives by the Financial Services Board

3.6.1. Objectives of the Securities Services Act 2004

The Financial Services Board (FSB) operates under the Securities Services Act of 2004, and other legislation, for the regulation and supervision of the South African securities markets.

The Act applies to "*regulated persons and the securities services which they provide, issuers of securities, and clients*". It empowers the FSB, through the Registrar and Deputy Registrar of Securities Services, to supervise compliance with a number of stipulated 'objects' or aims of the Act, which are to:

(a) "increase confidence in the South African financial markets by-

(i) requiring that securities services be provided in a fair, efficient, and transparent manner; and

(ii) contributing to the maintenance of a stable financial market environment;

(b) promote the protection of regulated persons and clients;

(c) reduce systemic risk; and

(d) promote the international competitiveness of securities services in the Republic."

In performing these functions, the Act requires that the Registrar and Deputy Registrar should have regard to the following:

(i) "international supervisory standards;

(ii) the principle that a restriction which is placed on a regulated person, or on the rendering of securities services, should be proportionate to the purpose for which it is intended;

(iii) the desirability of facilitating innovation in securities services;

(iv) the international nature of regulated persons and securities services;

(v) the principle that competition between regulated persons should not be impeded or distorted; and

(vi) the need to use resources in the most effective and cost-efficient way;"

3.6.2. Scope of the Act

The Act is explicitly market-orientated, and consists of a number of regulations, many of which are framed as principles rather than specific rules. These include provisions in respect of the following:

- Licensing and conduct of business requirements for exchanges, central securities depositories, and clearing houses.

- Rules for trading in listed securities.
- A code of conduct for authorised users.
- The detection of and penalties for market abuse.

The Act permits the Registrar to delegate certain regulatory and supervisory functions to licensed 'self-regulatory organisations' such as a licensed exchange, or to a licensed central securities depository.[41] Although these may be private companies, the Act prescribes specific ownership restrictions in respect of these systemically important organisations.

It also places a reporting requirement on financial institutions in respect of any transaction in listed securities concluded outside an exchange, if it results in a change of beneficial ownership of those securities.

The definition of a security under the Act includes derivatives, but the focus is very much on listed instruments. Nevertheless, it does remove all derivative instruments, listed and unlisted, from being considered as 'wagers', insofar as section 3.3 states: -

"Any law or the common law relating to gambling or wagering does not apply to any activity regulated by or under this Act."

3.6.3. Regulation of unlisted securities

The Act briefly discusses 'unlisted securities', which includes OTC derivatives, and gives the Registrar certain powers in these markets:

(i) "to prohibit a person from carrying on the business of buying or selling unlisted securities"

(ii) "to impose conditions for the carrying on of such business"

(iii) "to prescribe conditions in terms of which specified types of unlisted securities may be bought or sold"

To-date, the FSB has not used these powers to exert control over the OTC derivatives markets, since it defers to the Banking Supervision Department of the South African Reserve Bank for the regulation and supervision of banks, which have traditionally been the largest participants in the professional OTC derivatives markets of South Africa and elsewhere.

3.7. Restrictions in respect of derivatives usage by regulated entities

3.7.1. Retirement funds

Section 36(1)) of the Pension Funds Act of 1956, as effected by Regulation 28, empowers the Minister of Finance to stipulate prudential limits for retirement funds. Since derivatives are not defined by the regulation, they fall within the category of 'other assets', for which there is an investment limit equivalent to 2.5% of total assets.

[41] A central securities depository (CSD) provides a range of clearing, settlement, and custody services to participants in securities markets. In South Africa, Strate Ltd is the only licensed CSD currently, and provides for the electronic settlement of securities in the fixed income, equity, and some derivative markets.

Changes are currently being considered to the Regulation, which may include:

(i) Higher limits for derivatives usage by retirement funds, albeit restricted primarily to hedging and portfolio management.

(ii) The introduction of a 'look-through principle', designed to prevent the misuse of derivatives and other mechanisms to evade prudential limits on asset allocations.

3.7.2. Collective investment schemes

The Collective Investment Schemes Control Act of 2002 permits the use of both listed and unlisted derivatives in investment portfolios, provided they are used to hedge underlying assets or financial instruments, or to synthetically create an unleveraged exposure to such assets or financial instruments.

3.7.3. Insurance companies

There are similar provisions in the two Acts which govern the short- and long-term insurance industries in South Africa.[42] These provisions are quite substantial and permit the use of derivatives for reducing investment risk or for efficient portfolio management. They also require that a derivative be in respect of assets in excess of the assets required to meet the short or long-term insurer's liabilities under their respective policies.

There is a requirement that a derivative instrument relates to an asset that the insurer will, or reasonably expects to, own at the settlement date of the derivative and which will discharge the obligations of the derivative contract.[43]

Derivatives are included as permissible assets under Schedule 1 of both Acts, subject to a requirement that OTC derivatives are capable of being readily closed out and are entered into with a 'counterpart' approved by the Registrar.[44]

Schedule 2 of both Acts discusses the valuation of assets, and requires that derivatives be marked-to-market, or valued by such other method as determined by the Registrar.

3.8. Consumer protection

Non-professional users of derivatives often lack sufficient understanding of their valuation and risks, and it is important that there are adequate standards for their protection; this is especially important given the participation of retail individuals.

A major development in this regard has been the Financial Advisory and Intermediary Services (FAIS) Act of 2002. This provides standards for the market conduct of financial services providers and their representatives, with a focus on consumers receiving fair treatment and full disclosure of relevant information.

The functional approach of the Act gives it a wide ambit in terms of activities and institutions covered, and its provisions cover derivative instruments, as defined in the Securities

[42] Section 33(2)The Short-Term Insurance Act 1998 and section 34(2) of the Long-term Insurance Act 1998
[43] This is generally known as a 'covered' derivative, although the legislation does not use this term.
[44] There is a fairly comprehensive application process for obtaining such approval.

Services Act. To-date, the Act has resulted in the development of specific codes of conduct for certain industry sectors, but there is, at present, no specific code in respect of OTC derivatives.

3.9. Regulation of derivatives activities of banks

3.9.1. The Banks Act

The responsibility for the regulation and supervision of local and foreign banks in South Africa falls under the Bank Supervision Department (BSD) of the Reserve Bank, which executes the functions assigned to the Registrar of Banks in terms of the Banks Act 1990. Its stated mission is:

"To promote the soundness of the banking system through the effective and efficient application of international regulatory and supervisory standards." [45]

The approach taken to-date by the Bank has been a market-orientated and largely principles-based one, which can be seen by the following excerpt from its 2009 report:

"Market principles underlie all our activities and decisions … (W)e follow a risk-based supervisory approach, not one of inspection, and our objective is to add value. Consequently, our role is that of a 'watchdog', not that of a 'bloodhound'."

Derivatives are not explicitly authorised under the Banks Act, since they do not fall within the definition of the authorised activities of a depository institution. The banks' activities in these markets fall under general prudential and conduct of business rules contained in the Act and associated regulations.

3.9.2. Regulatory capital requirements

South Africa subscribes to the Basel Core Principles for Effective Banking Supervision, established in 1997 and updated in 2006, and imposes capital adequacy requirements on all local banks in respect of credit, market, and operational risks. In line with the recommendations of the Basel Committee for Banking Supervision, the relevant local regulations explicitly include derivatives.

The BA320 is a monthly return in respect of market risk, and includes information with respect to derivatives portfolios specifically. It stipulates different requirements in respect of the major derivative asset classes as well as requirements in respect of options under the Standardised Approach for calculating regulatory capital.

Where it deems necessary, the Reserve Bank is permitted to require banks to strengthen their risk management and internal control policies and procedures, and to hold additional capital.

3.9.3. Monitoring of market activity

Banks in South Africa are required to submit a monthly summary of derivatives activities via the BA350 return to the Reserve Bank. The return was originally developed to provide

[45] 2009 Bank Supervision Department Annual Report

statistical insight into the degree of derivative activity in which banks were involved, and whether banks' positions were significant contributors to profit or loss.

The form requires banks to provide information concerning:

1. Gross notional amounts of all contracts in derivative instruments that matured, expired or were terminated during the reported month (regardless of when they were initiated).

2. Gross notional amounts of all outstanding derivative contracts at the end of the reporting month.

3. The net fair value of all outstanding derivative contracts at the end of the reporting month on the basis of market value.

The information contained in the BA350:

- distinguishes between credit derivatives and other derivatives.

- divides derivatives into broad risk categories – credit, interest rate, foreign exchange, equity, and commodity.

- divides derivatives into types of instrument – forwards, swaps, and options.

- determines whether the reporting bank primarily conducts business in OTC or exchange-traded contracts ("*in order to distinguish risk profiles*").

- determines whether derivative instruments are used for trading purposes or banking purposes, such as hedging.

- does not eliminate double-counting between banks, since two banks that are counterparties to one another on a transaction are both required to report the position in gross notional terms.

- exaggerates the degree of activity by requiring banks to report turnover and month-end exposure in gross notional terms. The underlying value of both legs of a transaction, with a potentially negligible net exposure, are required to be grossed and reported.

Regulation 32, which prescribes reporting on the form BA350, also stipulates other important requirements in regulation 32(4), namely: -

A bank shall have in place a written policy relating to derivative instruments, which: -

a) shall be approved by the bank's board of directors.

b) specifies the criteria for determining which instruments are banking book and which are trading book.

c) specifies any relevant limits relating to transactions in derivative instruments.

d) shall ensure that transactions in derivative instruments are subject to adequate internal controls and appropriate internal audit coverage.

The return also defines the meaning of notional amount and fair and market value.

4. Review of International Initiatives and Progress

4.1. The G-20 reform agenda

In accordance with the reform measures called for by the G-20 Leaders at the Pittsburgh Summit in 2009, a large number of work streams were commissioned by international regulatory, self-regulatory, and industry bodies.

During this process, the major role players have all acknowledged that some changes to the OTC derivatives landscape are required, especially regarding the automation of key processes, transparency of risk positions to regulatory authorities, and more formal and robust procedures for mitigating counterparty credit exposures.

Further, all parties agree that there needs to be international cooperation in introducing regulations and setting standards, in order to ensure a level playing field and limit opportunities for regulatory arbitrage. There is, however, disagreement concerning the need for and viability of mandatory central clearing and trading for OTC derivatives, and the required scope of exemptions for end-users of these instruments for hedging purposes.

The two largest centres of the OTC derivatives industry, the United States and the European Union, have already created legislative frameworks for reforming the OTC derivatives industry. Both sets of legislation have benefited from reports from several influential bodies, and have been subject to extensive consultation during periods for public comment.[46]

4.2. US Dodd-Frank Act

4.2.1. Regulation of 'swaps'

The Dodd-Frank Wall Street Reform and Consumer Protection Act ('Dodd-Frank') was passed by Congress and signed into law by President Obama in July 2010. It is a far-reaching enactment, and has been called 'the biggest expansion of government power over banking and markets since the Great Depression'.

Title VII of the Act –'Wall Street Transparency and Accountability', represents a significant part of the overall enactment. It provides for a comprehensive framework for regulating the OTC derivatives markets, and seeks explicitly to avoid future taxpayer bailouts of professional market participants.

The Act confers expansive new authority for non-security-based derivatives on the Commodity and Futures Trading Commission (CFTC), and for security-based derivatives on the Securities Exchange Commission (SEC). A Financial Stability Oversight Council has been created to resolve disputes between these regulatory agencies.[47]

The CFTC and SEC have been given a deadline of one year (360 days) to implement the required rulemaking under the Act, and much will depend on their interpretations in the light of intense industry lobbying.

[46] The Japanese authorities have also legislated for certain derivatives (IRS and CDS) to be cleared centrally and data to be reported to authorities, with these requirements becoming effective by late 2012.
[47] Disputes, especially 'turf wars', have long characterised the relationship between these two agencies.

The Act refers mainly to 'swaps', but it is clear from the definition provided in the Act that the word swap is a generic term for all OTC derivatives, including swaps, forward contracts, and options in all asset classes. The legislation gives the Treasury Secretary the discretion to exclude FX derivatives from the clearing and trading rules, but they must still be reported. The Act also exempts from the definition:

"the sale of a non-financial commodity or security for deferred shipment or delivery, so long as the transaction is intended to be physically settled".

The Act does not apply to derivatives traded outside the US, although regulators can impose regulations on entities from other countries.

4.2.2. Registration of swap dealers and major swap participants

While dealers in OTC derivatives have generally been part of regulated financial entities, usually banks, the Act requires the registration and regulation of these dealers explicitly under a separate 'swap dealer register'.

Accordingly, entities that are defined by the CFTC to be 'swap dealers', or 'major market participants' (MSPs), will be required to register with the CFTC, and abide by a number of conduct of business rules e.g. record keeping and capital requirements.[48]

A MSP is defined as an entity which: -

"maintains a substantial position in swaps, exclusive of positions held for hedging or mitigating commercial risk including an employee benefit plan, and whose swap positions create substantial counterparty credit exposures that could seriously affect the stability of the US banking or financial systems; or

is highly leveraged and not subject to capital requirements established by an appropriate Federal banking agency, while maintaining a substantial position in outstanding swaps in any major category as determined by the CFTC."

The Act recognises that an entity may be declared a MSP for one category of swap, but not necessarily for all of the categories in which it is active.

It is possible that the definition of a MSP could apply to some buy-side institutions e.g. hedge funds, which actively trade in derivative instruments, although recent comments from the CFTC Chairman have suggested that the number of companies that will be designated as MSPs should be 'very small'.[49]

4.2.3. Central reporting

There is a requirement for the majority of swap transactions to be reported to a 'swap data depository', which may be a private facility, or one set up and administered by the CFTC itself.

The reporting requirement will be on the 'swap dealer', unless neither of the counterparties is a dealer, in which case they must decide which of them is responsible for reporting.

[48] Dealers that are banks will still only be subject to bank capital requirements.
[49] Comments made during testimony to the Senate Banking Committee and reported in the Wall Street Journal Online on September 30, 2010.

Swaps traded on an exchange or 'swap execution facility' (SEF) must be reported in real-time, and there will be no 'grandfathering' exemption for existing transactions.[50]

4.2.4. Central clearing of standardised derivatives

Swaps meeting certain criteria, to be determined by the CFTC, will have to be processed by a derivatives clearing organisation (DCO), although there will be a 'grandfathering' exemption for existing transactions, and an exemption for end-users. The Act formally recognises that DCOs are themselves systemically important institutions, and creates governance and conduct of business rules for a number of exchanges and clearing houses, intended to limit conflicts of interest.

The Act lays down five criteria for the CFTC to consider when deciding which contracts should be cleared:

(i) The existence of outstanding notional exposure, trading liquidity, and adequate price data.

(ii) The availability of rule frameworks, capacity and other resources and expertise to clear the contract on terms consistent with material terms and trading conventions on which the contract is traded.

(iii) The effect on the mitigation of systemic risk.

(iv) The effect on competition.

(v) The existence of reasonable legal certainty regarding the treatment of customer and swap counterparty positions in the event of the insolvency of the relevant derivatives clearing organisation or one or more of its clearing members.

End-users can be exempted from central clearing provided:

- they are not 'financial entities'
- they are not MSPs
- they use swaps to hedge commercial risk
- they can demonstrate how they meet their financial obligations associated with entering non-cleared swaps.

4.2.5. Mandatory margin requirements for non-clearing eligible trades

Where swaps are not centrally cleared, the regulators are responsible for setting mandatory minimum initial and variation margin requirements. The Act provides no exemption for end-users, despite such a provision in some drafts of the Act.[51]

[50] An interim final rule of October 1, 2010, requires registration of pre-enacted unexpired swaps within 60 days of registration of the appropriate swap repository.
[51] It is still possible that some form of exemption will be included by the authorities, which would appear to have been the intention of the parties responsible for introducing the legislation.

4.2.6. Central trading of standardised derivatives

Swaps that are required to be centrally cleared must be executed on a 'designated contract market' (DCM), or on a new class of exchange known as a 'swaps execution facility', which is a trading platform with bids and offers available to participants from multiple dealers.

4.2.7. Restriction on activities

The Act also seeks to address the 'too big to fail' issue directly, by requiring banks to 'push out' certain of their derivatives activities to separately capitalised subsidiaries from 2013, but with grandfathering expected to be permitted. These activities are defined to include:

"non-cleared CDS, CDS against ABS, and commodity, equity, and energy derivatives".

A bank that does not comply with this regulation could lose Federal assistance in such areas as accessing the Fed discount window and FDIC insurance. Depository institutions will, however, be permitted to engage in derivatives businesses characterised as:

"bona fide hedging and traditional bank activities, such as interest rate swaps, FX forwards and swaps, and centrally cleared CDS".

The Act also expands the CFTC's power to impose position limits on certain categories of swaps, especially where they relate to instruments on regulated markets, for example equities.

The much-vaunted 'Volcker Rule', prohibiting banks from engaging in proprietary trading, is included in the legislation, but is subject to a number of exceptions known as 'permitted activities'. These include risk mitigation activities and transactions on behalf of customers.

4.3. The EU Draft Regulation

On 15 September, the European Commission tabled a proposal for legislation in the EU - the 'Draft EU Regulation on OTC Derivatives, Central Counterparties, and Trade Repositories', with the explicit purpose to "*introduce more transparency to the OTC derivatives markets*".

The Draft now passes to the European Parliament and EU member states for debate and amendments, and is scheduled to be adopted formally in 2011 and apply from end-2012.

The Regulation covers all OTC derivatives, as listed in Annex 1 of the Markets in Financial Instruments Directive of the European Union (MiFID), and applies to both financial and non-financial firms. The provisions are very much in line with previous consultation papers, and are explicitly intended to be aligned with US legislation.

Although providing more details in key areas than Dodd-Frank, the Regulation will still require significant 'fleshing out', and much of the responsibility for this is given to the newly-established European Securities and Markets Authority (ESMA), and the European Commission (EC).[52]

[52] ESMA replaces the previous Committee of European Securities Regulators (CESR) from January 2010.

4.3.1. Reducing operational risk

The Regulation specifically addresses the seriousness of operational risk in the OTC derivatives industry, as a result of "*highly bespoke and complex contracts which require significant manual intervention in many stages of processing*".

It requires market participants to "*measure, monitor, and mitigate this risk by, for example, electronic confirmations*".

4.3.2. Central reporting

The Regulation requires all OTC derivative transactions to be reported to a trade repository (TR) "*within one working day following execution, clearing or modification*". The TR must be approved by ESMA, and may be based outside the EU provided that it meets certain requirements regarding supervisory rules and access to information.

The Regulation imposes a number of standards for these repositories, ranging from governance, compliance, operational systems, and the safeguarding of data integrity.

The EU Commission is charged with determining the required details and frequency of reports, in accordance with technical standards to be developed by ESMA. The Regulation requires that these reports contain at least the identities of the parties to the contract, and the main characteristics including their notional value.

4.3.3. Central clearing of standardised derivatives

The Regulation mandates that standardised OTC derivatives be cleared through CCPs listed on a register maintained by ESMA. Authorisation of a CCP is by a 'competent national authority', but there is scope for recognition by ESMA of CCPs from non-EU countries.

A contract's eligibility for clearing is to be determined through a dual process involving both a bottom-up and a top-down approach.

(i) Bottom-up approach

Once a CCP has been authorised by its competent authority to clear a class of derivative, ESMA must decide whether a clearing obligation should apply to all such contracts within the EU, based on the following criteria:

a) Reduction of systemic risk.
b) Liquidity of contracts.
c) Availability of pricing information.
d) Ability of the CCP to handle volume of contracts.
e) Level of client protection afforded by the CCP.

ESMA is also required to conduct a public consultation and consult with competent authorities, including in non-EU countries, before employing this approach.

(ii) Top-down approach

ESMA and the European Systemic Risk Board can also determine that certain classes of contracts, although not yet cleared by a CCP, should nevertheless be subject to the clearing obligation.

This approach is clearly more contentious, since it raises the possibility of ESMA mandating central clearing for certain types of contracts, even though market participants may deem this unsuitable.

4.3.4. Regulation of CCPs

The Regulation recognises CCPs as systemically important institutions, and imposes a number of financial, governance, and conduct of business requirements on them. These include: -

- Access to adequate liquidity.
- Adequate capital.
- Contingency plans.
- Governance requirements to include partial or full change of ownership.
- Conduct of business requirements, e.g. criteria for admitting clearing members.
- Prudential requirements – to include initial and variation margin, eligible collateral, and a default fund. In particular, the CCP must be able to withstand the default of the two largest clearing members.
- 'Interoperability' requires regulatory approval, and is restricted to 'cash securities' for now.[53]

The Regulation requires that a CCP must accept clearing of contracts on a non-discriminatory basis, regardless of the execution venue, in order to prevent anti-competitive behaviour from CCPs that are aligned to a specific central trading platform.

4.3.5. Requirements in respect of non-clearing eligible derivatives

Where derivatives are not cleared centrally, the Regulation proposes a number of requirements, including: -

- Electronic means of timely confirmation.
- Robust processes to reconcile, risk manage, and value portfolios.
- Timely, accurate, and segregated exchange of collateral.
- Additional capital.

4.3.6. Exemptions for non-financial counterparties

There is a partial exemption for non-financial counterparties from the reporting and clearing obligations, provided that their activities remain below defined information and clearing 'thresholds'. These thresholds are to be defined separately by the EC, taking into account "*systemic relevance per class of derivative*".

These counterparties will only be subject to a reporting or clearing obligation, if they are active participants with positions above the relevant threshold and are considered to be systemically important.

Importantly, derivatives used for hedging are excluded from the threshold calculation. However, if a non-financial counterparty triggers a threshold and is considered systemically

[53] Interoperability may, for example, include margin being transferred across CCPs.

important, it will be subject to the same regulatory requirements as financial counterparties for all derivatives activities, not just those above the threshold.

4.4. Differences between US and EU regulations

There is undoubtedly much common ground between the regulators on either side of the Atlantic, but there are also a number of potentially significant differences:

(i) While both sets of legislation propose clearing exemptions for end-users hedging with derivatives, the EU exemption is based on a threshold and is thus wider than the US provision, which only exempts non-financial users in respect of hedging positions under certain conditions.

(ii) The US requires central reporting of all transactions, while the EU has an information threshold for end-users.

(iii) The US links central clearing to execution on an exchange or swap execution facility. The EU draft does not look at execution venues, and will only examine this in 2011.[54]

(iv) The US forces banks to 'push out' equity and commodity derivatives to affiliates, but there is no such requirement in the EU draft.

(v) The US stipulates that the clearing house collateral from a US derivatives customer will have to be held in the US, but the EU position on this has not yet been articulated.

(vi) While the US requires the CFTC to establish conduct of business rules, including issues of trading, transparency, and the registration of dealers, this will be dealt with separately under the EU's review of MiFID.

(vii) The US considers whether banks and financial holding companies should be allowed to own CCPs, as well as the need for limits on TR ownership.

(viii) The US is putting into place legislation to tame speculative activity in the physical commodity markets, and setting position limits for OTC derivatives that perform or affect a significant price discovery function with respect to regulated markets.

The EC is proposing to rather review the Market Abuse Directive, and extend its scope to derivatives and to the supervision of markets for raw materials; it also wishes to introduce short-selling restrictions on certain instruments, including CDS.

4.5. The UK perspective

The United Kingdom is a member state of the European Union, and bound by regulations enacted by the European Parliament. However, as the largest centre for OTC derivatives activity, it is important to note that the authorities there favour a less interventionist approach to financial market reform, compared to their colleagues in Brussels.

[54] Nevertheless, recent comments by the CESR, soon to become ESMA, have suggested that it favours setting ambitious targets for the central trading of derivatives – 'Watchdog wants targets for EU derivatives trading', Reuters, October 13, 2010.

The key report to-date of the UK Financial Services Authority (FSA) shares some common ground with the wider EU draft Regulation. For example, it calls for a greater standardisation of OTC derivatives contracts, more robust counterparty credit risk management generally, the registration of OTC derivatives trades in a trade repository, and higher capital charges for non-centrally cleared trades. It also proposes that there should be international agreement by both regulators and CCPs as to which products are eligible for clearing.[55]

There are, however, some areas of fundamental disagreement; for example, the FSA does not believe that mandatory central clearing and trading are necessary at this stage, nor does it believe that there are grounds for introducing position limits on OTC derivatives markets. These disagreements will undoubtedly be aired during the forthcoming process of debate and amendment of the draft Regulation by EU member states.

4.6. Revised capital requirements

In a recent report to the G-20, the Basel Committee on Banking Supervision (BCBS) acknowledged that the depth and severity of the recent crisis were amplified by weaknesses in the banking sector such as excessive leverage, inadequate and low-quality capital, and insufficient liquidity buffers. It further agrees that the crisis was exacerbated by a pro-cyclical deleveraging process and the interconnectedness of systemically important institutions.[56]

The BCBS has responded with new global standards to address both firm-specific and broader systemic risks. These were agreed and issued by the Committee and the Governors and Heads of Supervision between July 2009 and September 2010, and are collectively referred to as 'Basel 3'. Relevant measures include:

(i) Raising the quality of capital to ensure banks are better able to absorb losses on both a going concern and a 'gone concern' basis. The minimum common equity requirement rises from 2% to 4.5%, and there is a mandatory capital conservation buffer of a further 2.5%, to deal with stress periods. Thus, the fully loss-absorbing capital total requirement rises from 2.5% to 7%.

(ii) Initiatives to strengthen the risk coverage of the capital framework, in respect of trading activities, securitisations, and counterparty credit exposures arising from derivatives. There will be higher capital requirements for trading and derivative activities, and capital incentives for banks to use central counterparties for over-the-counter derivatives.

(iii) A risk weight for CCPs is proposed, "*so that banks remain cognisant that CCP exposures are not risk free*."

(iv) Introduction of an internationally harmonised leverage ratio to supplement the risk-based capital measure and to contain the build-up of excessive leverage in the system. This will be initially calibrated at 3% during a parallel run period, and will include derivatives.

(v) Introduction of a counter-cyclical capital framework that encourages a build-up of capital in good times.

[55] Reforming OTC Derivatives Markets – A UK Perspective, December 2009
[56] BCBS October 2010

(vi) A new global minimum liquidity standard for internationally active banks, to ensure a buffer of high-quality liquid assets to withstand a stressed funding scenario specified by supervisors. There will also be a longer-term structural ratio ('net stable funding ratio') to address liquidity mismatches.

(vii) Raising standards for supervisory review and public disclosures of risk positions. This will include additional guidance in the areas of sound valuation practices, stress testing, liquidity risk management, corporate governance, and compensation.

(viii) Increased regulatory capital for the trading book.

The Committee is also working with the Financial Stability Board to address the risks of systemic banks, and to ensure that they have loss absorbing capacity beyond the minimum standards of the Basel 3 framework.

National implementation of these reforms will commence in 2013, with parallel runs in some instances, and final implementation only by 2018.

4.7. Revision of accounting standards

The International Accounting Standards Board has been conducting a complete revision of accounting standards for financial instruments, in response to calls from the G-20 for improvements in this area.

The aim of the Board is to replace IAS 39 with a new standard IFRS 9, which sets out the classification and measurement requirements for financial assets, and which should be hopefully less complex and controversial than its predecessor.

The Board also seeks to make accounting for hedging more principles-based and aligned with risk management practice.

4.8. Industry initiatives

4.8.1. ISDA and the G14

The response of the derivatives industry has been far from tardy, and much progress has been achieved in a number of key areas, especially where regulation is anticipated.

The International Swaps and Derivatives Association (ISDA) has been actively involved in amending existing protocols and developing new ones, to reduce counterparty credit and operational risks, and to address new regulatory requirements.[57]

ISDA has also worked with the G14 member banks and leading buy-side institutions in formulating a series of commitments, which have been periodically communicated by letter to the major regulatory agencies, with appropriate progress updates.

These commitments have included:

- Clearing for OTC standardised derivative products.

[57] These include the 'Small Bang' and 'Big Bang' protocols in respect of CDS contracts.

- Implementing data repositories for non-cleared transactions.
- Enabling direct or indirect customer access to clearing with initial margin segregation and position portability.
- Delivering robust collateral and margining processes and improved dispute resolution mechanics.[58]
- Updating industry governance to be more inclusive of buy-side participants.
- Driving improvements in industry infrastructure.

In particular, the Group has focused on four key operational areas for improvement:

(i) Submission and matching with an end goal of T+0 confirmation.

(ii) Increased electronic processing across asset classes.[59]

(iii) Increased standardisation of confirmation documentation, with focus on equities.

(iv) Continued focus on aged confirmation reduction targets.

4.8.2. Progress and current workload

The progress to-date was recorded in the March 2010 letter as:

- Implementation of the industry governance model put forward by ISDA in 2009.
- Further standardisation of credit derivatives.
- The successful launch of CDS clearing in Europe.
- Initial extension of clearing services to buy-side firms.
- Substantial progress in the implementation of global data repositories.
- Delivery of proposals for improvements to the OTC bilateral collateral processes.
- Continued improvement in industry infrastructure. [60]

The Group committed in the same letter to the following key initiatives:

[58] Portfolio reconciliation for OTC derivatives in now becoming more common and proactive, since it seeks to address portfolio differences before collateral disputes arise. The triResolve service of TriOptima is especially popular for this.
[59] In South Africa, the 'Big Four' banks have adopted the Markit Wire trade processing platform, initially for interest rate derivatives. Markit Wire delivers real-time legal confirmation, trade capture, and straight through processing for sell-side and buy-side firms.
[60] 'Portfolio compression' services, such as TriOptima's triReduce, have been successful in reducing the number of redundant OTC derivatives contracts. According to data provided by the company, by 2009 this service had eliminated $60.2 trillion in notional outstandings of credit default swaps, and $61.1 trillion in interest rate swaps - www.trioptima.com

(i) Market participants will provide regulators with data and analysis to evaluate how greater price transparency in the OTC derivatives markets might improve financial stability.

(ii) Market participants will expand central clearing in the credit and interest rate derivatives markets.

(iii) Market participants will work with supervisors to evaluate and prioritise levels of standardisation in credit, equity, and interest rate products.

(iv) Market participants have committed to implementing best practices for collateral management to help reduce counterparty credit risk.

5. Key Issues

The progress to-date in implementing the measures called for by the G-20 has been considerable, thanks to both regulatory and industry efforts.

Going forward, several key issues will need to be addressed to effectively achieve regulatory objectives, and simultaneously assuage industry concerns. This section discusses the current debates talking place in respect of these issues, and attempts to identify main areas of consensus and disagreement.

5.1. Regulatory approach

Industry participants are concerned that regulators may pursue a less market-orientated and somewhat punitive approach, which could include measures that are regarded as essential for systemic stability, but which are damaging to the efficiency of the derivatives industry. For example, onerous collateralisation requirements for end-users, which may deter them from using these instruments for legitimate risk reduction purposes.

There also concerns that regulation could be counterproductive, and actually increase systemic risks. For example, a requirement to centrally clear some instruments and not others could actually increase counterparty credit risk.

It is beyond doubt that every OTC derivative could be centrally traded, reported, and cleared, if that is what the parties truly desired; the only questions are the cost of achieving this, who bears this cost, and the impact this would have on the availability and liquidity of certain instruments.

5.2. Standardisation of OTC derivatives

Many of the current reforms being advocated for the industry require some degree of 'standardisation' of derivative instruments. This is seen as essential for the greater automation of trading and settlement processes, more pre- and post-trade transparency, and better risk management practices.

Equally, there is general agreement that the standardisation criteria for central trading, central reporting, and central clearing of OTC derivatives are different, and require greater or lesser degrees of fungibility and liquidity.

The CESR proposes three elements for consideration in relation to standardisation:[61]

(i) Legal uniformity

Widely considered as the 'driver' to achieving other elements of standardisation, legal uniformity includes standard documentation and definitions for derivatives contracts.

(ii) Process uniformity

This refers to a number of elements, most of which hinge on the use of automated electronic procedures.

[61] CESR July 2010

(iii) Product uniformity

This refers to unique economic terms of a contract such as settlement dates, size, and valuation methodologies.

5.3. Central trading of OTC derivatives

There appears to be little enthusiasm among industry participants for a wholesale migration to centralised trading facilities, since trading large volumes of OTC derivatives on central platforms requires high levels of product standardisation, which is seen as unsuited to the needs of many users.

The opinion of many professional participants, as represented by ISDA, is that macro- and micro-prudential objectives can be addressed by central reporting and clearing, and that centralised trading does not, in itself, reduce risk. The only real benefit of centralised trading, it is argued, lies in greater pre-trade transparency for market users, which is not a systemic concern, nor does it seem to be an industry concern at present.

A recent ISDA survey shows that 59% of 234 end-users in the market for interest rate derivatives believe pre-trade price transparency is satisfactory and only 17% believe it is inadequate.[62] On the other hand, interest rate derivatives are one of the most liquid and standardised of the OTC markets, and it is possible that a survey of users of less liquid instruments would reveal different views. Ironically, however, the markets that may benefit from greater pre-trade transparency are also the ones least likely to lend themselves to centralised trading, such as exotic and structured derivative products, with highly customised and unique features.

Whatever the industry view, US legislation has required that clearing-eligible transactions are also traded on central facilities, and recent statements from the CESR, soon to become ESMA, point to the setting of targets for this in the EU.

5.4. Central reporting of OTC derivatives

The characteristic lack of transparency of OTC derivatives markets is fast becoming a thing of the past, as everyone agrees on the need for reporting to a central trade repository, which must be accessible by regulators.

A recent report from the CPSS and IOSCO defines a trade repository (TR) as "*a centralised registry that maintains an electronic database of the records of open OTC derivatives transactions*." The report acknowledges that TRs are becoming a core component of the post-trade infrastructure, and may be considered the 'official legal record' of a transaction for lifecycle events. [63]

Issues regarding the setting up these entities include the optimal number per asset class and jurisdiction, regulation and governance principles, confidentiality of and access to data, and interoperability with other TRs and CCPs.

Issues regarding the submission of information to a TR and the use thereof include:

- Responsibility for reporting.

[62] ISDA End-User Survey, August 2010
[63] May 2010 - 'Considerations for Trade Repositories in OTC Derivatives Markets.

- Reporting frequency and method.
- Information required.
- Standardisation criteria.

Some important conclusions at this stage include:

- Regulators need to define purposes for which the data are required and thus the type and granularity of information to be submitted, which may vary across instruments and asset classes.

- TRs should update the central registry ideally in real-time and no later than one business day following receipt.

- TRs may require valuation capabilities to provide an ongoing picture of positions and exposures from previously reported trades.

- There should be no discrimination re: costs and access to TRs in respect of competitors.

5.5. Central clearing of OTC derivatives

5.5.1. Benefits of using a CCP

The use of a robust central clearing counterparty (CCP) provides a number of benefits to market participants, insofar as it may reduce certain undesirable risks. The novation of transactions by the CCP 'standardises' credit risk, which reduces search and information costs for participants. It also leads to multi-lateral netting, which significantly reduces the operational and other risks associated with a large number of redundant contracts.

For regulators, CCPs can lead to a reduction in systemic risk, due to the typical rules under which they operate, which are often set by the regulators themselves. These rules include procedures for measuring, mitigating, and ultimately mutualising, counterparty credit exposures, which participants effectively 'outsource' to the CCP. Since counterparty credit risk is particularly significant for derivatives, due to their delayed settlement compared to other financial instruments, this is potentially very appealing.

At the level of the firm, the business and risk management practices of a CCP member are also usually subject to detailed rules.

5.5.2 Central clearing versus central trading

The use of CCPs in derivatives markets has traditionally been for instruments traded on exchanges, with the clearing entity typically affiliated to the exchange itself. There is clearly huge synergy between central trading and central clearing, not least of which is the greater standardisation and liquidity associated with both, as well as the greater use of automation that is typical of their market infrastructures.

The extension of central clearing to OTC derivatives is currently being proposed and implemented for some instruments, even though trading of these instruments is continuing on a decentralised basis. This raises the question as to whether the use of a central trading

platform is a necessary condition for central clearing, which seems to be the stance of US lawmakers, or whether centralised clearing is still possible and desirable without it.

Support for considering central clearing separately from central trading comes from a recent report by the IMF, which argues that the focus for reform of the OTC derivatives markets should first be on centralised clearing, and only then on exchange trading.[64] This is in accordance with some recent CPSS-IOSCO guidelines on CCP usage for derivatives, which do not prescribe centralised trading as a requirement for the implementation of centralised clearing.[65]

The latest figures from LCH.Clearnet Ltd show that over 40% of all interest rate swaps are now centrally cleared via its SwapClear service, even though decentralised trading of these derivatives is still the norm. SwapClear provides central clearing for single currency swaps in 14 currencies, including the South African Rand, with maturities up to 50 years for some of these, and it has recently opened up to participation from buy-side institutions.[66]

5.5.3. Clearing eligibility[67]

It is generally agreed that central clearing is not appropriate or even desirable for certain types of derivative instruments, and mandating this could jeopardise the safety and soundness of a CCP. In particular, a lack of standardisation of instruments prohibits the netting of positions and raises doubts concerning the obligations of surviving members of a CCP, in the event of a default. At the same time, it is clear that complete fungibility is not required for instruments to be centrally cleared, and there is scope for a certain amount of flexibility regarding key features of eligible instruments, according to some form of product template.[68]

The CPSS and IOSCO have recently put forward some general considerations for determining whether a product can and should be cleared by a CCP:

(i) Standardisation of the product

- Standardised legal documentation.
- Use of templates when trading for filling in of contract terms.
- Management of lifecycle events using standard industry practices.
- Electronic confirmation.

(ii) Product risk characteristics

- Unique or difficult-to-measure risks.
- Ability to be accurately represented in a stress test portfolio.
- Similarity to products already being cleared.[69]

[64] GFSR April 2010
[65] CPSS-IOSCO May 210
[66] The resilience of the system was demonstrated by the prompt and uneventful settlement of the $9 trillion portfolio of the US investment bank Lehman Brothers, following its collapse in 2008.
[67] Some estimates have suggested that 75-80% of all OTC derivatives are sufficiently standardized to be centrally cleared.
[68] For example, SwapClear requires that all trades are submitted via an Approved Trade Source System, which is currently only MarkitWire, and are concluded under an ISDA Master Agreement. However, there is quite a lot of flexibility concerning amounts, effective dates, and coupon frequencies – see www.lchclearnet.com
[69] i.e. the EU 'bottom-up' approach

(iii) Availability of price information

- Sufficient transparency in the market to allow for fair and generally accepted pricing.
- Availability of reliable pricing sources.[70]

(iv) Trading liquidity

- A diverse range of active participants.
- The ability of a CCP to actively manage the risk of a portfolio or position, in the event of a participant's default.

5.5.4. Critical success factors

The central clearing of OTC derivatives is no longer a possibility; it is already a reality, with large volumes of contracts already being settled in this way, and industry plans to substantially increase this over the next couple of years. This has enormous implications in terms of costs, risk processes, and other issues, some with unforeseeable consequences.

To be successful in this area, CCPs will need to address the different and more complex risks associated with derivative instruments and portfolios, and reflect these in its risk mitigation procedures.

Standardisation by itself is not enough for a derivative to be centrally cleared; crucially, this can only work if the CCP can assume credit risk from a range of trading parties, and then adequately manage this risk. Ultimately, this requires that there is sufficient liquidity and resources for the CCP to transfer obligations of one or more defaulting members.

Since central clearing results in a concentration of credit and operational risks in the CCP, it too becomes systemically important, and potentially too big to fail, especially given the prospect of a mass migration of OTC derivatives to CCPs. It is widely accepted, therefore, that CCPs must be regulated entities, and subject to a range of minimum acceptable corporate and risk governance standards and regulatory supervision. It has also been suggested that they should have sufficient access to lines of credit and other facilities at time of stress, and possibly even to some form of state assistance.[71]

Other important considerations regarding the setting up and operation of CCPs include:

- The optimal numbers per product/asset class, and interoperability considerations, especially given the need to accommodate cross-border transactions in a global industry.

- Membership eligibility criteria and buy-side participation.[72]

- The importance of ensuring a level playing field between CCPs, possibly across borders, with risk management standards such as initial margin requirements not being varied for competitive reasons.

[70] Centrally traded markets are generally order-driven with buying and selling prices streaming into a transparent central order book. OTC markets are generally quote driven which requires that multiple quotes are acquired and converted into consensus prices.
[71] The current US position seems to be against underwriting these institutions, while the EU seem to favour it.
[72] There are already concerns among smaller dealers that they will be excluded from membership of CCPs dominated by a few large participants.

- The cost implications compared to alternative clearing mechanisms, since this could be a major factor in determining voluntary use of these entities.

5.5.5. Industry concerns

There are some important concerns from both the sell- and buy-sides of the industry regarding mandatory central clearing of OTC derivatives:

- The potential disruption to highly liquid and efficient OTC markets, for example foreign exchange.[73]

- Unintended consequences, which could actually increase systemic risk. For example, counterparty risk may be increased if CCP-cleared positions are not nettable against non-CCP cleared positions.

- The loss of flexibility to customise products, and a resulting increase in basis risks for end-users, with potentially harmful consequences.[74]

- Financial and operational burdens on end-users in respect of collateralisation requirements.

- The segregation of margin accounts, re-hypothecation of collateral, and portability of positions in the event that a member defaults.

Many of these concerns have been partly allayed by the approach of the regulators to date, especially the inclusion of exemptions from central clearing for end-users, in both the US and EU legislation.

Concerns remain, however, regarding the ways in which regulators will treat non-centrally cleared derivatives, and to what extent this will require changes to existing micro-prudential regulations. At a minimum, it seems likely that substantially higher capital charges will apply to such transactions, unless it is accepted that there are adequate alternative risk management arrangements in place. It may even lead to regulators prescribing collateral requirements and procedures in respect of such transactions, which is the US position at present.

[73] FX industry representatives argue that central clearing and the resulting reduction in counterparty credit risk is not relevant to their market, which is more concerned with the mitigation of 'settlement' risk, which is a different and potentially more serious form of credit risk.

[74] Basis risk refers to a mismatch between the exposure being hedged and the hedging instrument used; it can be especially damaging to the economic success of a hedging programme, and can prevent the application of hedge accounting rules.

6. Working Group Findings

6.1. The South African financial system and markets

The South African financial system is recognised as world-class, with high standards of corporate governance employed by the leading firms, and a professional regulatory framework.

The South African financial markets are recognised as being well-organised and well-managed, and systemic risks and disturbances have been promptly and adequately addressed by the authorities. Participants in these markets have grown accustomed to periodic episodes of extreme volatility, which has encouraged the early and widespread adoption of international risk management and governance standards.

Features of the local cash and derivative markets include their breadth and depth, and the general availability of liquidity, even in times of stress. During the recent global crisis, the local financial markets performed without a major incident, and there were no instances of systemically important South African financial institutions requiring emergency assistance from the authorities.

The maintenance of exchange controls for resident institutions limits participation in foreign financial markets by locally registered institutions, and domestic financial intermediation is highly concentrated in a handful of large and highly capitalised financial institutions.

6.2. Systemic risks

There are several aspects of the South African financial landscape which have systemic risk implications:

(i) The concentration of financial intermediation in South Africa creates a small number of systemically important institutions, which are significantly interconnected.

(ii) The local financial landscape is dominated by diversified financial conglomerates, with insurance and asset management activities being conducted alongside traditional banking. This places a premium on co-operation between the different regulatory agencies, due to the possibility of shocks being transmitted across sectors, and the potential for regulatory arbitrage.

(iii) Some of the larger domestic banks are allocating considerable resources to the development of international operations, which significantly increases operational risks.

(iv) South Africa is classified as an emerging market with a high degree of global integration of its financial system. As a result, it has periodically suffered from 'contagion' from problems elsewhere in the financial markets universe, leading to sudden and sharp falls in the prices of local financial assets and the external value of the domestic currency.

(v) The local financial sector is required to conform to quotas for employment equity, transfer of ownership, and credit extension, designed to assist with the economic empowerment and participation of previously disadvantaged racial groups. While these measures are vital for the sustainable social and economic development of the

country, they have the potential to misalign incentives in the short-term, with potential systemic risk implications.

6.3. Weaknesses in the regulatory framework for OTC derivatives

South Africa strives to ensure that its regulatory framework reflects international best practice and, to this end, the local authorities actively participate in a range of international regulatory fora.

The local framework is a predominantly institutional one, which leads to a division of responsibilities between agencies for certain functions. This has resulted in the development of a highly regulated listed derivatives market. The OTC markets, on the other hand, are regulated only indirectly, via the regulations imposed on the respective participants, especially banks.

Certain regulatory weaknesses emerge from this:

- Regulators lack a composite picture of the systemic risk exposures of systemically critical institutions.

- Some participants are largely unregulated in respect of their activities in the local OTC derivatives markets. This is of particular concern for entities offering products and services to unsophisticated retail clients.

- Some participants 'hide behind' licences for regulated derivatives businesses, in order to offer derivatives products and services in the OTC markets.

- OTC derivative instruments may be used to evade asset allocation limits of regulated institutions.

6.4. Systemic risks of the South African OTC derivatives markets

The South African OTC derivatives markets are well-developed by international standards, and have performed without systemic difficulty through a number of international and local crises. Nevertheless, there are features of these markets which increase the risk of systemic problems, many of which are common to all OTC derivatives markets, to a greater or lesser extent:

(i) The professional South African OTC derivatives markets are highly concentrated in the big four or five large local banks, and a handful of large international banks.

(ii) The size of the local OTC derivatives markets is small in relation to global volumes, but large in comparison to other emerging markets and the size of the economy.

(iii) The less-regulated South African OTC derivatives market is far larger than the regulated exchange-traded market, and includes contracts on listed securities.

(iv) The majority of local OTC derivatives transactions rely on bi-lateral execution and settlement arrangements between the parties, and there is uneven use of collateral for transactions.

(v) Some of the local derivatives markets provide the primary mechanism of price discovery for certain asset classes.

(vi) The current supervision of OTC derivative activities in South Africa does not provide the authorities with a sufficiently detailed picture of the build-up of credit and other risk concentrations within and across sectors.

(vii) The fragmentation of regulatory responsibilities along institutional lines increases the risks of regulatory arbitrage and evasion.

(viii) The enforceability of bi-lateral netting agreements under South African insolvency law has not been firmly established.[75]

6.5. Changes to the South African regulatory framework

6.5.1. The need for change

The OTC derivatives markets have long been regarded as one of the 'intellectual frontiers' of the financial system, insofar as they have been responsible for significant innovation, including the development of much of the modern risk management industry. They have become hugely important to the efficient functioning of the financial markets generally, and provide many risk management benefits to a variety of end-users, as well as to the professional participants themselves.

Derivatives markets, do however, represent the most complex and leveraged of a complex and leveraged global financial system, and the sheer size of these markets, coupled with their ability to amplify and rapidly transmit shocks across the system, warrants close supervision.

Supervision of OTC derivatives markets is hampered by a general lack of transparency, at least compared to the regulated derivatives markets. Many of the operational and counterparty credit risks of OTC derivatives have been managed according to the preferences of individual participants, some of which have proven inadequate during periods of stress.

It is no longer considered appropriate, therefore, for these markets to rely almost exclusively on self-regulation, and public policy requires that they be subject to independent and competent supervision, and are no longer classified as 'unregulated'.

6.5.2. Focus of regulation

The members of the Working Group consider that, while some changes are necessary, there is no need for an urgent or radical shift in the policy stance of the South African regulatory authorities at this time. Where possible, regulators should consider the extent to which existing regulatory enactments can be utilised to achieve desired objectives, especially more time-critical ones. This would avoid the uncertainty created while new legislation is drafted, approved, and tested in the markets.

[75] However, the new Companies Act is likely to exclude ISDA agreements from the business rescue provisions, which would provide some support for their legitimacy.

The required changes to existing regulations should focus on setting standards for professional participants in the OTC derivatives markets, and fostering improvements to the market infrastructure, with appropriate use of incentives to change behaviour. Where possible, regulators should avoid detailed rules applying to the markets and instruments themselves.

There is a perceived need to level the playing field for professional participants, in terms of capital adequacy, taxation, and other requirements, to ensure that the scope for regulatory arbitrage is minimised.

A key focus of regulation should be on identifying and dealing with systemic risks, such as 'risk chains' between participants and the build-up of risk concentrations.

6.5.3. Importance of co-operation between regulators and industry

It is important that the regulatory changes are considered and implemented in consultation with the major stakeholders in the industry, to ensure that the objectives are achieved, and the risk is minimised of unintended consequences that could impede the efficient operation of these systemically important markets.

Regulators should keep abreast of the fast-changing international developments in this field, in order to develop appropriate and compatible rules.

The implementation of new regulations should be preceded by an impact study with relevant cost-benefit analyses.

7. Recommendations

"A sense of normalcy should not lead to complacency" – G-20, September 2009

The recommendations of this report have been divided into three categories:

- Two recommendations aimed at risk measurement and management of OTC derivatives.
- Two recommendations aimed at promoting appropriate governance standards for the OTC derivatives industry.
- Three recommendations in respect of other important policy issues related to OTC derivatives.

All of the recommendations include a description of the principle and the rationale for the proposed changes, as well as specific implementation issues considered by the Working Group.

7.1. Risk measurement and management

7.1.1. Recommendation 1 - Central reporting of OTC derivatives

Principle

Derivatives activities of licensed entities should be subject to a well-defined reporting system that allows regulators to monitor the potential for systemic problems.

Rationale

It is essential that financial regulators have a means of early detection of systemic risk concentrations in an economy, such as the build-up of large un-hedged counterparty credit exposures. This is not the case currently with OTC derivatives in South Africa.

Implementation issues

(i) This requires the licensing and supervision of a central trade data repository (TR) for OTC derivatives, which may be a private entity or one established and controlled by an appropriate regulatory authority.

(ii) The TR should be regulated as a systemically important institution.

(iii) Consideration should be given as to whether the STRATE system offers a potential solution for a TR, but other proposals should be invited.

(iv) Responsibility for reporting amongst counterparties should be clearly established, and double-counting should be avoided.

(v) It is vital that there are clear rules for the submission and acceptance of transactions, including eligibility criteria such as successful trade 'matching'.

(vi) It should be clearly established whether the data reported is simple trade details, such as notional amounts, expiry dates, and counterparty details, or more detailed and model-dependent position exposures.

(vii) The frequency of reporting should ideally be at least daily for systemically critical products, however defined.

(viii) Consideration should be given to reporting underlying cash positions with derivative positions, where appropriate, to provide an accurate picture of net exposures.

(ix) Embedded derivatives, in for example structured notes, should be reported alongside stand-alone derivative transactions.

(x) Regulators must carefully consider the information which they require from the TR. This should include:

- Gross and net derivative positions by instrument, asset class, and counterparty.
- A breakdown of hedging, speculative, and client positions.
- Market values of positions.

7.1.2. Recommendation 2 - Central clearing of OTC derivatives

Principle

OTC derivatives should be standardised to the fullest extent possible and settled through a licensed central clearing counterparty (CCP). Where central clearing is not used, there must be adequate risk management arrangements in place to mitigate counterparty credit and other risks. Capital requirements for non-centrally cleared derivatives should reflect their incremental risk to the system.

Rationale

The use of CCPs provides a highly satisfactory method of managing counterparty credit risk for derivatives, via the use of multi-lateral netting and standard collateralisation arrangements. This considerably reduces the systemic risk of such instruments.

Many OTC derivatives can be sufficiently standardised to permit central clearing and settlement, and large parts of the global OTC derivatives industry have already moved to central clearing, or are in the process of doing so.

Bi-lateral clearing arrangements will remain appropriate to certain instruments, which are not suitable for central clearing, but it is imperative that such arrangements adequately mitigate the credit and other risks.

Implementation issues

(i) The use of CCPs for clearing OTC derivatives should not, in general, be mandatory. Regulators must, however, have the power to classify certain OTC derivatives markets as systemically critical, which may require the use of CCPs in such circumstances.

(ii) The use of CCPs for OTC derivatives should not require the central trading of such instruments, and arrangements should, as far as possible, permit clearing for instruments traded in decentralised venues.

(iii) It is important that CCPs are recognised as systemically important institutions, and they should be licensed as professional market participants with close regulation and supervision of their activities. This should include the setting of minimum standards for collateralisation and other critical procedures.

7.2. Governance standards

7.2.1. Recommendation 3 - Licensing of professional participants

Principle

Professional participants in derivatives markets should be licensed by a relevant authority, operating under a statutory framework. There should be minimum entry requirements and comprehensive prudential standards for these participants.

Rationale

The licensing of professional participants is designed to ensure that they have sufficient resources and governance structures to conduct their activities appropriately. It also provides safeguards in respect of consumer protection and preventing market abuse.

Implementation issues

(i) The definition of a 'professional participant' needs careful consideration, but should include the following entities:

- All sell-side institutions carrying on OTC derivatives businesses.
- Operators of trading platforms and other trade execution facilities for OTC derivatives.
- Operators of post-trade clearing and settlement services for OTC derivatives
- OTC derivatives brokers.
- Entities offering professional advice in respect of OTC derivatives.
- Buy-side institutions exceeding an appropriate usage 'threshold', which may be defined qualitatively and/or quantitatively.

(ii) Minimum requirements for licensed firms should include:

- Adequate capital and infrastructure to support their activities.
- Conformity with 'fit and proper' requirements in respect of employees.
- Appropriate risk management and corporate governance policies, to be established and monitored by the board of directors. These policies must adhere to minimum standards of best practice regarding the collateralisation of transactions and other risk mitigation measures.
- Supervision by a relevant authority and appropriate penalties for non-compliance with regulation.

7.2.2. Recommendation 4 - Code of conduct for professional participants

Principle

A code of conduct for professional participants in the OTC derivatives industry should be drawn up by the regulatory authorities in consultation with key stakeholders. All licensed participants and their employees and agents should be bound by its terms.

Rationale

The protection of consumers in the OTC derivatives market can be enhanced by the development of a code of conduct. This should provide for minimum standards of transparency and suitability criteria, which are especially important for retail users of these instruments.

Implementation issues

(i) Consideration should be given as to whether this code should be developed under the auspices of the FAIS Act.

(ii) The code should include provisions in respect of the following:

- Criteria for assessing the suitability of products for non-professional counterparties.
- Full disclosure of all material risks in terms appropriate for non-professionals.
- Appropriately worded wealth warnings, especially for retail users.
- Commitment to provide assistance with valuation and accounting issues.
- Early termination issues, including secondary market liquidity of structured products.
- Key terms of legal agreements.
- Valuation methodologies.
- Collateralisation procedures.
- Market conduct issues, including confidentiality and practices such as front-running.
- Advertising and solicitation of business.
- Dispute resolution procedures.
- Due diligence and KYC procedures.

7.3. Other important policy issues

7.3.1. Recommendation 5 - Systemic risk assessment of OTC cash markets

Principle

The South African regulatory authorities should conduct a review of the systemic risks in the local non-derivative OTC markets.

Rationale

These markets employ similar clearing and settlement mechanisms to their derivatives counterparts, and their failure also presents systemic risk issues.

7.3.2. Recommendation 6 - Legal and accounting certainty

Principle

Regulators should ensure legal certainty for OTC contractual arrangements e.g. ISDA agreements, and the effect of set-off netting rules contained in the Insolvency Act.

They should work towards clear and uniform accounting standards for derivatives instruments.

Rationale

Legal risk is considerable in the OTC derivatives market, and has systemic implications in the event that uncertainty or unenforceability could lead to a chain of defaults by interconnected participants.

The reporting and valuation of derivatives transactions should be consistent across market sectors and users, in order that regulators and other interested parties can derive meaningful information concerning exposures.

7.3.3. Recommendation 7 - Monitoring of international developments

Principle

The South African regulatory authorities should closely monitor international developments with respect to regulation and self-regulation of OTC derivatives markets, and respond with appropriate and timely work streams.

Rationale

The global OTC derivatives landscape is changing at a rapid pace, and many of these changes have universal implications. South Africa must ensure that local regulatory initiatives are, as far as possible, in step and consistent with those of the major centres for OTC derivatives activities.

Addendum

Comment on Recommendation 3 – 'Licensing of professional participants'

(Stuart Yates)

"Whilst I am in agreement with the intention of the recommendation, I do not believe it will achieve the desired outcome. As we have seen in the existing market, unscrupulous operators will advertise themselves as 'licensed by the FSB' in a misleading way, in order to comfort their unwary customers that the business they are carrying out is regulated. In terms of the law they are entitled to advertise their licensing in this way and, because of a lack of law around the actual business they are doing, the FSB is powerless to do anything about it. So unless there is new statute to protect the retail investor from misleading claims by such operators, I do not believe licensing as such will achieve investor protection.

Secondly I do not believe that the professional institutional market needs licensing. It will add a layer of cost to an already overgrown governance structure. If a new exchange is started that operates with a rule book that needs to be understood and adhered to, then I am confident that the institutions using it will ensure that their staff are appropriately trained.

In order to effectively implement this licensing recommendation I think the FSB will need to dramatically increase their staff complement, be seen in the market to virulently enforce the licensing provisions of any new legislation, and to have severe penalties for those adjudged to have infringed.

By contrast I believe it would be more efficient to deliberately leave the OTC market as unlicensed, make the public well aware of this fact, and leave the institutional market subject to the other recommendations in this report."

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