OTC Markets and Derivatives Trading in Emerging Markets

Final Report

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List of Abbreviations

BIS	Banks for International Settlements
BNM	Central Bank of Malaysia
CNV	The National Securities Commission of Argentina
CNVM	The Romanian National Securities Commission
CVM	Securities and Exchange Commission of Brazil
DFSA	Dubai Financial Services Authority
DTCC	The Depository Trust & Clearing Corporation
FMA	Financial Market Association (Pakistan)
FSC Korea	Financial Supervisory Commission of Korea
FSC Taiwan	Financial Supervisory Commission of Taiwan
FSS	Financial Supervisory Service
G-20	Group of 20
GAO	General Accounting Office (United States)
GTSM	GreTai Securities Market (Chinese Taipei)
HM Treasury	Her Majesty's Treasury (UK)
IAIS	International Association of Insurance Supervisors
IAS	International Accounting Standards
IFSL	International Financial Services London
ISDA	International Swaps and Derivatives Association
MiFID	Markets in Financial Instruments Directive
MUFAP	Mutual Funds Association of Pakistan
SC	Securities Commission of Malaysia
SEBI	Securities and Exchange Board of India
SFC	Financial Superintendence of Colombia (Colombia)
SRO	Self Regulatory Organization
STRATE	South Africa's Central Securities Depository

Chapter 1 Objective, Background and Methodology

1.1. Introduction

The financial crisis that had emerged in the second half of 2007 revealed the severity of problems related to the lack of effective and prudent regulation and risk management practices in global financial markets. The over-the-counter (OTC) derivatives markets have grown dramatically in the recent years, but have remained largely unregulated. Massive risks in derivatives markets have remained undetected by both regulators and market participants.

Currently a vast number of unique products are being traded on OTC markets and they are often characterized as trading relatively infrequently, although often in significant size, and almost exclusively through the commitment of dealers.

The risks associated with OTC derivatives transactions are apparent but after the large-scale financial failures that OTC derivatives caused in the current financial crisis, the process of regulating these markets has gained pace. Many efforts to develop measures for more transparent and controllable markets have been observed during this period.

On the other hand, effective, comprehensive regulation of the OTC derivatives markets requires a great deal of international cooperation and a consistent regulatory framework.

The IOSCO Technical Committee Task Force on Unregulated Financial Markets and Products (TFUMP) was formed in support of G-20 calls for a review of the scope of financial markets and in particular unregulated financial markets and products. The Report of the Task Force (September 2009) examines ways to introduce greater transparency and oversight in unregulated financial markets and products and improve investor confidence in, and the quality of, these markets. The report proposed a number of regulatory actions designed to improve confidence in currently unregulated financial markets and products by promoting fair, efficient and orderly markets. The TFUMP had regarded two systemically important processes and markets, securitisation and credit default swaps (CDS) because of the great significance of these markets and products to credit availability in the real economy and their contributions to the management of individual and systemic risks, in addition to the role of these markets and products in the build up to and onset of the global financial crisis.

The G-20 has subsequently reinforced the importance of the work of TFUMP, recommending that all systemically important financial markets and instruments should be subject to an appropriate degree of regulation and oversight that should be consistently adopted and should be proportionate to their local and global significance.[1]

[1] In addition to this, IOSCO Technical Committee Standing Committee on the Regulation of Secondary Markets (TCSC2) has recently initiated work on non-CDS OTC derivatives

Concerning the OTC markets, the Committee of European Securities Regulators (CESR) is also working on the following topics:

- The European Commission's (EC) 2010 MiFID review covers specific issues related to OTC markets;
- CESR Members will share their supervisory experiences on market abuse involving OTC derivatives in order to contribute to Members' possibilities to detect and investigate market abuse through these instruments;
- After publication of the CESR consultation paper on trade repositories in the European Union, CESR will continue to develop its policy in this area on the basis of the feedback received and the work conducted in other important international forums (e.g. CPSS-IOSCO, OTC Derivatives Regulators' Forum);
- CESR continues to work on raising market participants' awareness on the importance of their obligation under the Market Abuse Directive (MAD) to send suspicious transaction reports (STRs) to regulators, with particular focus on OTC derivatives. CESR will also aim at developing a harmonised format for STRs in OTC derivatives; and
- The Working Group on Derivatives, where CESR has been represented, will continue to take into consideration the progress made by market participants in the clearing of CDS' when formulating its policy orientations for OTC derivatives in general.[2]

The G-20 also highlighted that regulatory reform must be comprehensive and concluded that *"All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements."*[3]

In its Report to G-20 Leaders, the Financial Stability Board (FSB) also emphasized the coordinated work for OTC derivatives. The basic recommendations of FSB can be summarized as follows[4]:

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markets. The mandate also aims to identify relating regulatory gaps and concerns and to determine whether IOSCO guidance would be appropriate in this area.

2 For details see, "CFTC, Remarks of CFTC Chairman, Gary Gensler, Over-the-Counter Derivatives Reform, February 24 2010", "US Department of Treasury, Regulatory Reform Over-The-Counter (OTC) Derivatives, May 13 2009", "IOSCO, Draft Mandate of the IOSCO EMC Chairs' Task Force on OTC Markets and Derivatives Trading, November 2009", "IOSCO, Report on Unregulated Markets and Products, 4 September 2009" and www.cesr-eu.org.

3 G-20, Leaders' Statement: The Pittsburgh Summit, 24-25 September 2009, available at http://www.pittsburghsummit.gov/mediacenter/129639.htm.

4 FSB, Improving Financial Regulation, Report of the Financial Stability Board to G20 Leaders, 25 September 2009.

- Strengthening capital requirements to reflect the risks of OTC derivatives and further incentivising the move to central counterparties and, where appropriate, organised exchanges;
- Strengthening standards for central counterparties to address the issues specific to clearing OTC derivatives; and
- Coordinating efforts to oversee and apply international standards to OTC derivatives central counterparties and trade repositories.

As a result of all these initiatives mentioned above, the need to work on the member markets of Emerging Markets Committee (EMC) has emerged. The findings of this study will serve in both shaping the market structure of EMC jurisdictions and the regulatory framework and also in supporting the other studies in relation to developed markets.

Hence, the purpose of this study is to examine the OTC markets of the EMC member jurisdictions; by taking into account their current approaches to and experience with regulating OTC markets and derivatives trading; their opinions regarding the future of regulating OTC markets; and to report these findings along with possible unifying suggestions.

In this respect, a Task Force on OTC Markets and Derivatives Trading has been established, at the EMC meeting held on 5 November 2009 in Bucharest. The Capital Markets Board (CMB) of Turkey chairs the Task Force, which is composed of 19 member jurisdictions who are listed in Appendix 1.

1.2. Approach

The undertaking included the circulation of a survey questionnaire to EMC members regarding their approaches and experiences in regulating OTC markets and derivatives trading.

For this purpose, in light of the discussions in the EMC meeting in Bucharest, brief information and suggestions have been requested from the task force members about the size of OTC markets, types of OTC products, regulatory preferences and the possible scope of the task. Eight jurisdictions (South Africa, Chinese Taipei, Malaysia, Poland, Romania, Chile, Argentina and Brazil) kindly responded.

Thereafter, a draft questionnaire, which is provided in Appendix 2, has been prepared by the CMB of Turkey and distributed to all 19 member jurisdictions in the Task Force and finally revised to its current text by taking into account the suggestions made by the eight jurisdictions mentioned above. According to the responses, most of the respondents expressed preference for a market-oriented study instead of a study covering only specific products. In addition, it was also commonly stressed that the most problematic area in the OTC market regulation is OTC derivatives. On the other hand, all the respondents said that detailed information and analysis pertaining to transparency, timely reporting, risk management, clearing, settlement, collateralization and investor protection are the major topics that should be examined.

Since jurisdictions may vary from each other in various aspects, it has been decided that the study should cover the very basic OTC market and transaction information to

the fullest extent from the perspective of emerging markets. However, in order to shed some light on the future of OTC regulation and the path to improve international cooperation, some detailed questions were included in order to obtain information about markets that are relatively more developed to some extent. Surveys and reports released by international organizations about OTC markets have been examined.

Therefore, in the survey common issues were identified and questions have been categorized into various sections. To the extent possible, the questions have been formulated as "Yes/No" questions in order to provide convenience and facility in answering the questions. Some open-ended questions have also been raised whenever extra detailed information and/or respondent-specific comments were deemed necessary.

The categories of the questionnaire are provided below:

1. Scope and Size of the OTC Market;
2. Authorization to Engage in OTC Transactions;
3. Risk Management;
4. Reporting;
5. Valuation Standards/Accounting;
6. Clearing and Settlement;
7. Collateralization;
8. Financial Crisis and OTC Markets; and
9. Other (free suggestion/comment section).

26 EMC jurisdictions sent their feedback and 16 of them were from among the Task Force members. 19 jurisdictions have responded to the questionnaire namely, Romania, South Africa, Colombia, Brazil, Argentina, Panama, India, Macedonia, Pakistan, DIFC, Poland, Czech Republic, Korea, Costa Rica, Chile, Chinese Taipei, Kenya, Malaysia, Turkey and 7 jurisdictions, namely Bangladesh, Slovenia, UAE, Albania, China, Ecuador, Barbados, responded that OTC derivatives markets do not exist in their respective jurisdictions or that they have no information about these markets.

Chapter 2 Overview of OTC Markets

OTC markets are usually defined as decentralized markets where trading is done by market actors using telephone or other electronic means which provide the opportunity for investors/dealers who have different risk appetites and needs to engage in highly tailored/structured transactions.

Furthermore, derivative instruments are risk transfer agreements whose value is derived from the value of the underlying asset.[5] Derivative contracts can either be traded in a public venue/exchange or privately over-the-counter. In this context, the OTC derivatives that are instruments traded over-the-counter where the value of the instrument is derived from or otherwise dependent on the value of a debt or equity security instrument or instruments that are admitted to trading on a regulated market have been analyzed in this report.[6]

Furthermore, OTC derivatives are generally bilateral and privately negotiated agreements that give the flexibility to the users to hedge their various risks.

As emphasized in the relevant report of the US GAO, OTC derivatives are innovative and often complex financial products that can be used to manage financial risks associated with volatility in interest rates, foreign exchange rates, equity and commodity prices. End users can also use these products to increase investment yields and reduce borrowing costs. However, all these benefits are not risk free since using OTC derivatives can result in losses from adverse market conditions, credit defaults or operation errors.[7]

Another point is that, the structures that exist in OTC derivative markets can be categorized as the *traditional dealer market*, *electronically brokered markets* and *proprietary electronic dealer (or trading platform)*. In the traditional dealer markets the quotes are posted by dealers on the electronic bulletin boards and the execution prices are decided usually by telephone through bilateral negotiation, whereas in the second structure, namely in electronically brokered markets, multilateral trading environment can be created by the use of electronic brokering platform or system. The last structure is a composite of the traditional dealer and the electronic brokering platform where, the quotes are posted by dealers and the other market participants observe these quotes. In this system only the dealers' quotes are observable and therefore it is defined as a *one-way multilateral environment*.[8]

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5 ISDA Definition, available at: http://www.isda.org/educat/faqs.html, access date: 27.03.2010.

6 CESR, Classification and Identification of OTC Derivative Instruments for the Purpose of the Exchange of Transaction Reports Amongst CESR members, Consultation Paper, 22 July 2009.

7 United States General Accounting Office (US GAO), OTC Derivatives: Additional Oversight Could Reduce Costly Sales Practice Disputes, October 1997.

8 Dodd, R., The Structure of OTC Derivatives Markets, The Financier, Vol:9, 2002.

2.1. Market Statistics

Since there is a significant data transparency problem in the OTC markets, it is extremely difficult to provide the exact numbers and size of the markets. According to the BIS data, the notional amount outstanding is $614,674 billion at the end of 2009. The number was $595,738 billion and $547,983 billion at the end of 2007 and 2008, respectively (Please see, Table 1 below).

Table 1: Global OTC Derivatives Market (2007-2009)

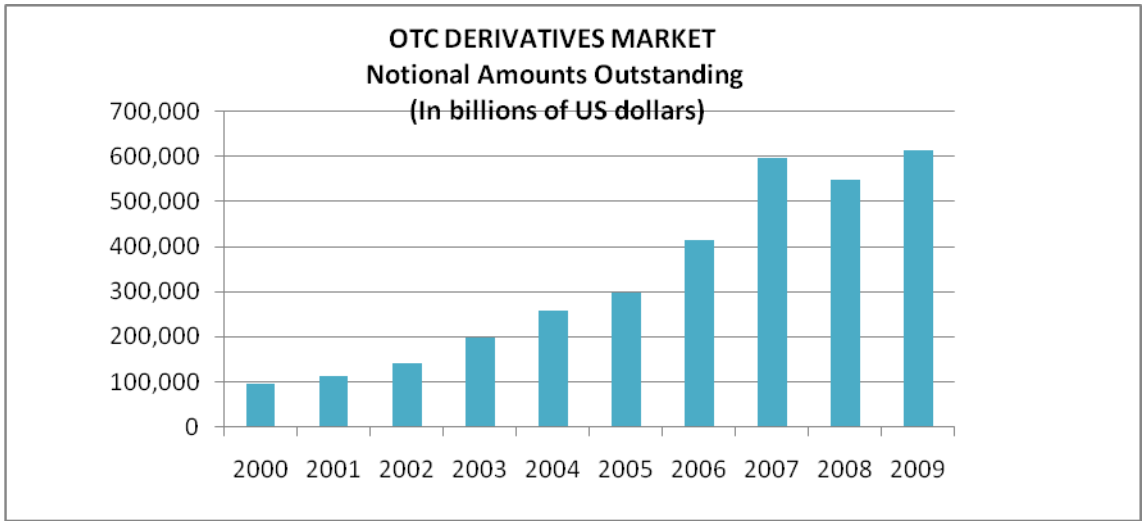
(USD Billion)

	Notional amounts outstanding				Gross market value			
	H1 2008	H2 2008	H1 2009	H2 2009	H1 2008	H2 2008	H1 2009	H2 2009
GRAND TOTAL	683,814	547,983	604,617	614,674	20,375	32,375	25,372	21,583

Source: BIS (2010:6).

As illustrated by Table 1 above, the gross market value however followed a different pattern and increased at the end of 2008 ($32,244 billion) and decreased in 2009 ($21,583 billion).

Figure 1: OTC Derivatives Market (2000-2009)



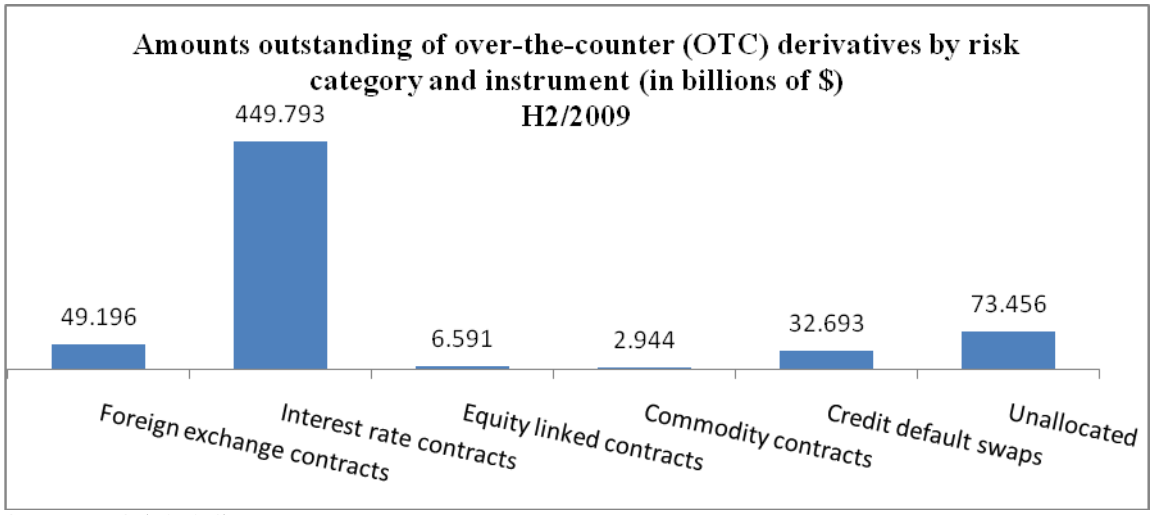
Source: BIS, OTC Derivatives Market Activity Reports, available at: www.bis.org.

When notional amount outstanding is taken into consideration, as indicated in the figure above, there has been a remarkable growth in the notional amounts of OTC derivatives. The growth before the crisis peaked during the year 2007 and negative impacts of the global financial crisis caused a slowdown in the market in 2008.

As for the types of instruments, interest rate contracts are the most preferred type of instrument in the OTC derivatives market with a $449,793 billion of notional amount

outstanding. The foreign exchange contracts and CDS are the other instruments that are being mostly preferred. However, their amounts are relatively small as depicted by Figure 2 below.

Figure 2: OTC Derivatives by Risk Category and Instrument



Source: BIS (2010:6).

From another point of view, according to the BIS Triennial Central Bank Survey results, the average total daily turnover for the reporting jurisdictions is $5,149 billion in 2007. Most of the trades are concentrated in two financial centres, namely the United States and the United Kingdom, which make up a total of 59%. The results of the survey highlight that *"Outside the United Kingdom and the United States, most trades took place in Europe and the Asia-Pacific region. OTC derivatives are also traded in some Latin American countries and in South Africa, but volumes remained negligible relative to those recorded in the other regions."*[9]

2.2. Global Financial Crisis and OTC Derivatives

In the last decade, there has been a huge growth in the value of OTC derivative contracts. Although interest-rate derivatives contracts compose the majority of OTC contracts, the CDS contracts also envisaged a high growth rate and grew over $60 trillion of gross nominal value by the end of 2007.[10]

On the contrary, the global financial crisis has changed the mindset of the overall financial market actors. Systemic failures, as well as failures of firms on a single basis, were observed during the crisis. The examples of major failures in investment banking were Bear Sterns, Lehman Brothers, and Merrill Lynch. Moreover, there were failures in banking such as, Fortis - as well as in the insurance sector such as AIG, and also in the mortgage finance sector such as Fannie Mae and Freddie Mac.

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9 BIS, Triennial Central Bank Survey, December 2007 available at http://www.bis.org/press/p071219.htm.

10 FSA, The Turner Review, A Regulatory Response to the Global Banking Crisis, March 2009 available at http://www.fsa.gov.uk/pubs/other/turner_review.pdf.

Besides, lack of transparency in the OTC derivatives played an important role in contributing to these failures.

Among the problems associated with OTC markets during the current crisis, the most significant problem was the *lack of transparency*. Due to lack of transparency, improper reporting and inappropriate valuation measures, the market continued to deteriorate. The regulators, supervisors and even the market actors themselves were not aware of the actual level of risk and this caused panic to expand rapidly. In other words, nobody had an idea of the extent to which credit risk was inherent across the financial system.

Furthermore, firms with highest credit ratings were allowed to conduct business by using less collateral compared to the other firms. Thus market convention caused inadequacies in collateral posting requirements for firms with highest credit ratings, this resulted in huge portfolios consisting of OTC derivatives for some systematically important actors.[11]

Alongside the non-transparent nature of transactions, risk management deficiencies of financial firms regarding OTC instruments aggravated the problem. Finally, the inadequacies and/or inefficiencies in supervision and enforcement processes as well as the weaknesses in regulatory process had a remarkable affect on the emergence of the crisis.

[11] The Joint Forum, Review of Differentiated Nature and Scope of Financial Regulation-Key Issues and Recommendations, January 2010 available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD315.pdf.

Chapter 3 Current Situation regarding OTC Trading in Emerging Markets

Although the OTC markets in emerging countries are not as complex and as developed as the OTC market in developed countries, it is interesting to analyze and to have a greater picture of the OTC markets in emerging countries. The global financial crisis demonstrated that it is too difficult for any market to withstand the effects of systemic risk. In order to analyze the situation of emerging markets, the Task Force on Current Financial Crisis of the Chairman of the EMC conducted a survey, [12] which showed clearly that systemic risk still remains as a key issue for emerging markets.

The current Task Force of the EMC circulated a Survey on OTC Markets and Derivatives Trading Models in Emerging Markets in January 2010, for which responses were received from the members of the following 19 jurisdictions:

1. Argentina
2. Brazil
3. Chile
4. Chinese Taipei
5. Colombia
6. Costa Rica
7. Czech Republic
8. DIFC
9. India
10. Kenya
11. Korea
12. Macedonia
13. Malaysia
14. Pakistan
15. Panama
16. Poland
17. Romania
18. South Africa
19. Turkey

The results are summarized in this report.

3.1. Scope and Size of the OTC Market

The most important finding of the questionnaire was the lack of information about the volume of OTC transactions. Even the responding jurisdictions have no concrete data for OTC trading. Since there is a significant data transparency problem in the OTC markets, it is extremely difficult to present exact numbers about the sizes of these markets.

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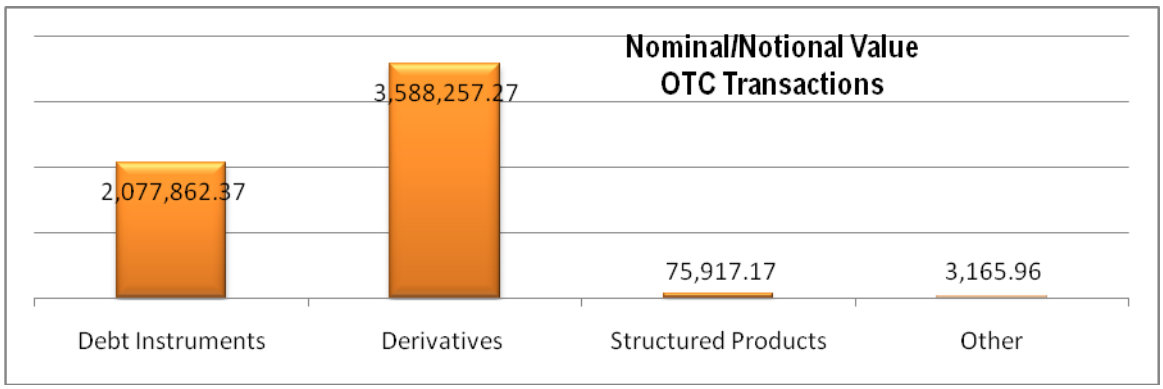
12 IOSCO, Impact on and Responses of Emerging Markets to the Financial Crisis, Final Report, Emerging Market Committee of IOSCO, September 2009 available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD315.pdf.

Only 19 of the 25 jurisdictions have provided information about market statistics and only 13 of them provided market data about OTC instruments. The figures indicate that, in the emerging countries, just like the case in developed ones, derivatives trading make up a great portion of the OTC activity. To be more specific, as shown in Figure 3 below, the nominal/notional amount of the OTC derivatives activity across the respondent jurisdictions, $3,588,257.27 million, nearly doubles the value for debt securities, which is $2,077,862.37 million.

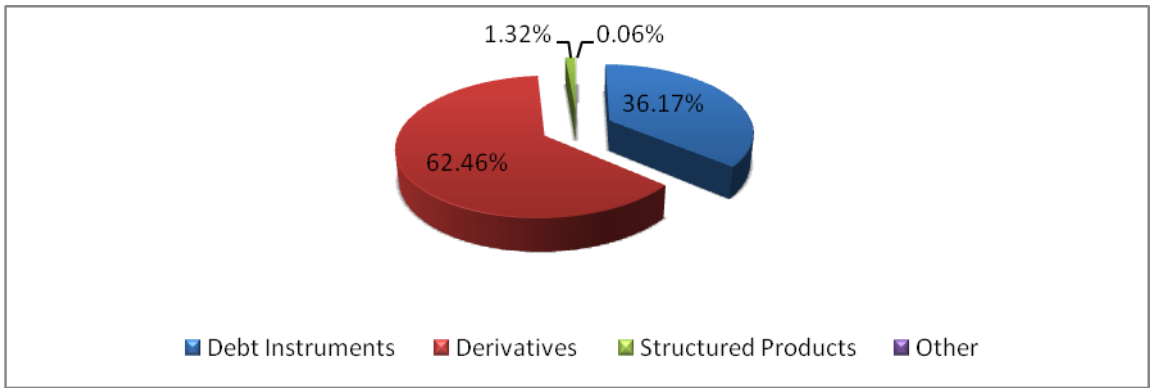
Figure 3: Nominal/Notional Value of OTC Transactions across respondents jurisdictions by instrument type (USD Million)



Source: CMB, Task Force Survey.

Figure 4 below shows that in terms of percentages, nearly 62.46% of the total OTC activity is composed of OTC derivatives transactions and 36.17% comes from OTC transactions related to debt. The amount for the structured products, including ABS, MBS, CDO and CLN, is only $75,917.17 million and composes only 1.32% of the total amount.

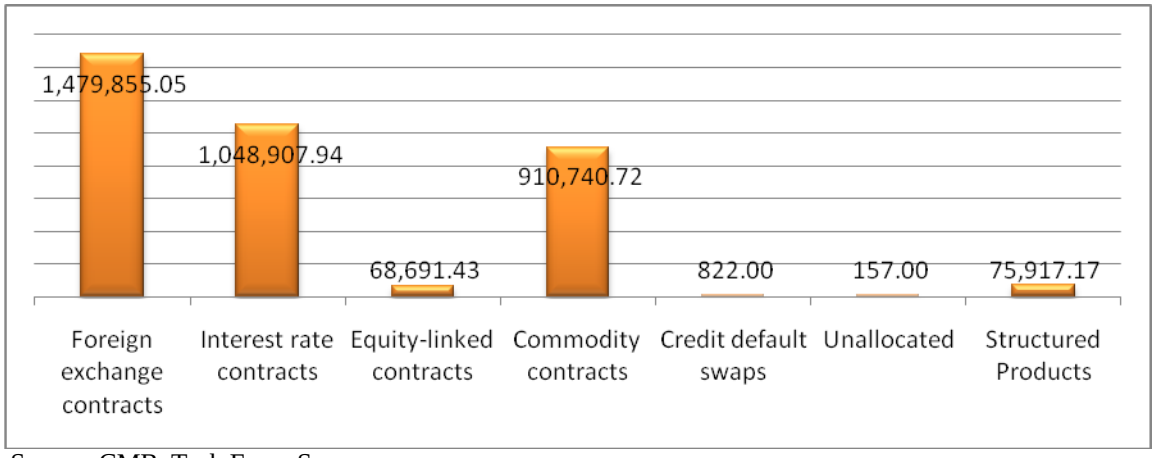
Figure 4: % of OTC Transactions by instrument type



Source: CMB, Task Force Survey.

As depicted by Figure 5 below, the most preferred instruments on the derivatives side are foreign exchange contracts ($1,479,855.05 million), interest rate contracts ($1,048,907.94 million) and commodity contracts ($910,740.72 million). The figures also indicate that the scapegoats of the financial turmoil, namely CDS and other structured products, are not actively used in emerging markets.

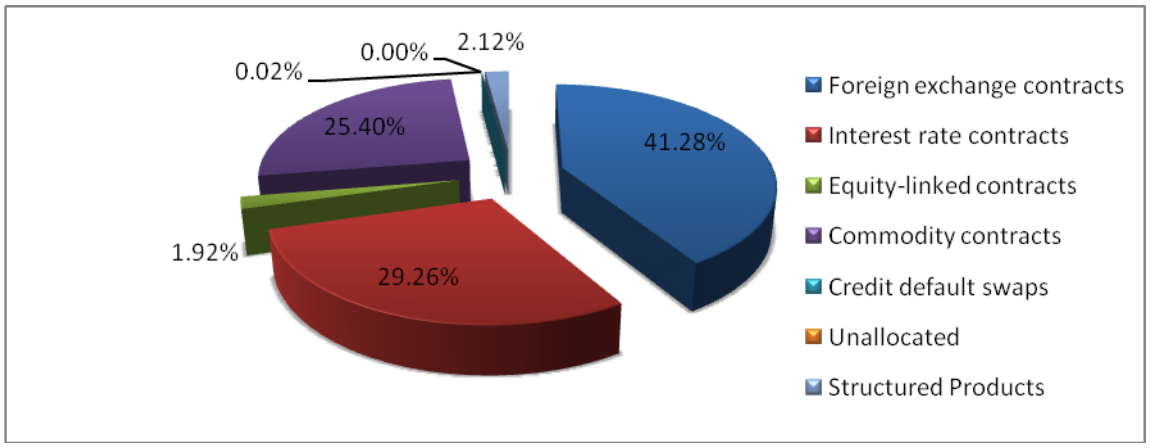
Figure 5: Notional Value of OTC Derivatives Transactions by the Type of Instrument (USD Million)



Source: CMB, Task Force Survey.

From another point of view, approximately 41.28% of the notional amounts of OTC derivatives in the OTC markets of respondent jurisdictions are comprised of foreign exchange contracts, 29.26% is interest rate contracts, and 25.40% is made up of commodity contracts.

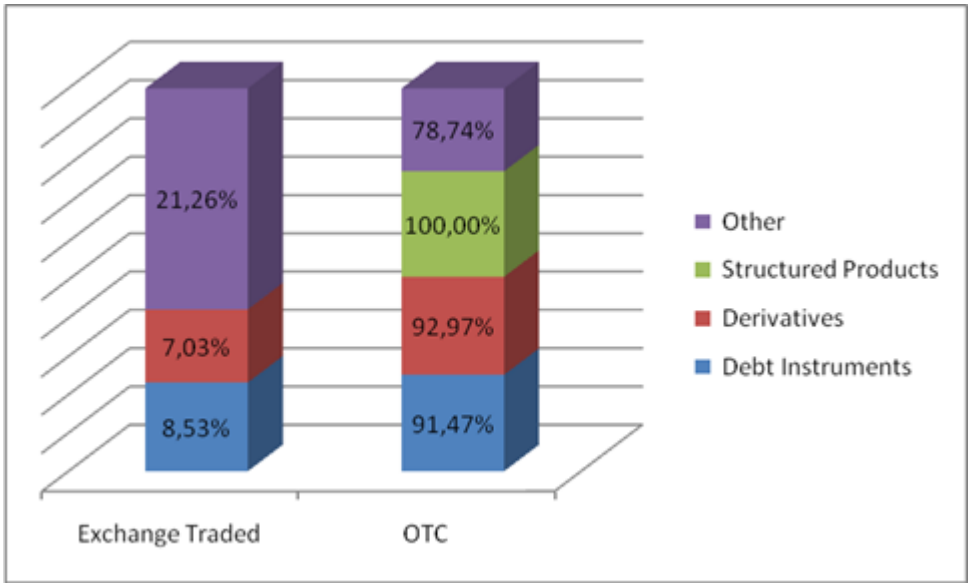
Figure 6: % breakdown of OTC derivatives transactions by instrument type



Source: CMB, Task Force Survey.

Moreover, the percentages of the products traded in OTC markets versus organized exchanges of the responded jurisdictions are shown in the following graph. OTC trading of derivatives and debt instruments have volumes which are much greater than exchange trading.

Figure 7: OTC and Exchange Transactions of Survey Respondents



Additionally, the average daily turnover[13] statistics for emerging markets as reported by BIS are given in the following table.

Table 2: Reported OTC Derivatives Activity for Emerging Countries, Average Daily Turnover

(USD Billion)

Country[14]	2001	2004	2007
Bahrain	2	1	2
Brazil	2	2	1
Chile	1	1	2
China	…	…	1
Colombia	0	0	1
Czech Republic	1	2	4
Estonia	…	0	1
Hungary	0	2	5
India	2	4	27
Indonesia	1	1	1
Israel	0	2	5
Korea	4	11	23
Malaysia	1	1	2
Philippines	1	0	1

13 BIS defines **turnover** as the absolute gross value of all deals concluded during the month, and was measured in terms of the nominal or notional amount of the contracts (See, BIS, Triennial Central Bank Survey, December 2007).

14 The jurisdictions involved in the table are the EMC members of IOSCO that report to BIS survey.

Poland	4	6	10
Romania	…	…	2
Russia	0	6	16
Slovakia	1	1	3
South Africa	8	11	15
Chinese Taipei	2	6	8
Thailand	1	2	5
Turkey	1	2	3
Total	**32**	**61**	**138**

Source: BIS Triennial Central Bank Survey 2007.

In the BIS report, the total daily turnover is reported as $5,149 billion in 2007. The table above thus indicates that the daily volume in EMC member jurisdictions is very minor compared to other jurisdictions, making only 2.68% of the total volume.

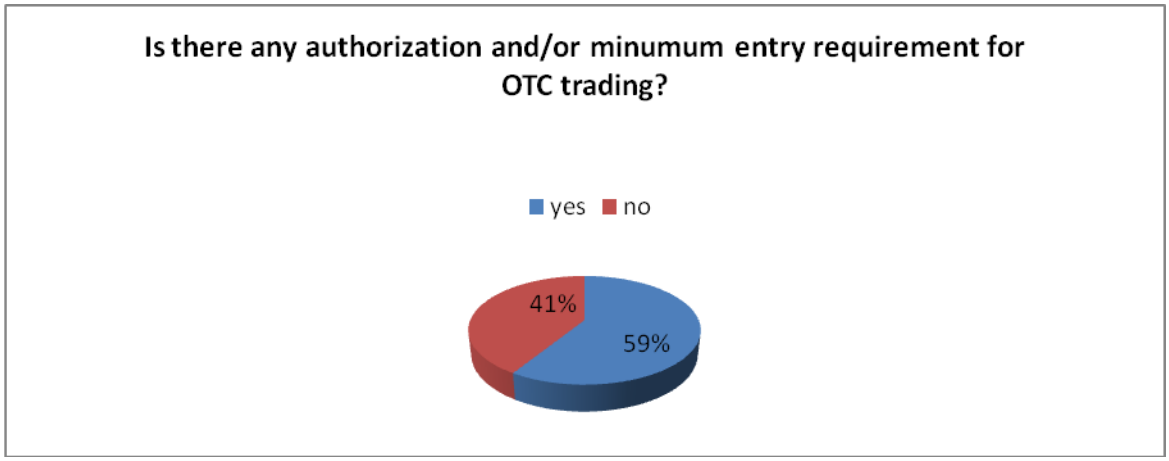
In conclusion, *government bonds, private sector bonds, foreign exchange contracts and interest rate contracts* are the major instruments that emerging markets trade in their OTC markets. Out of the 25 jurisdictions; Korea, Chinese Taipei, Czech Republic, Brazil and South Africa are the jurisdictions that have relatively more products traded in their OTC markets.

3.2. Authorization and Regulation

Out of 17 jurisdictions, 10 indicated that there is an authorization and/or minimum entry requirement for OTC trading (For details, please see Appendix 4 - Authorization and Regulation Table).

On a general basis, the jurisdictions that have been surveyed indicated that governmental institutions are the responsible agencies to authorize.

Figure 8: Authorization and/or Minimum Entry Requirements for OTC Trading in Surveyed Jurisdictions



Source: CMB, Task Force Survey.

A closer look at the respondent jurisdictions shows that there are individual differences between the manners of jurisdictions in giving authorization and/or minimum entry requirement for OTC trading. For instance, in Argentina, all derivatives contracts in futures markets and OTC markets must be previously approved by CNV (Comisión Nacional de Valores) whereas in Korea in order to trade OTC derivatives, financial firms must obtain a license for dealing or brokerage of OTC derivatives with required minimum capital. The threshold amount of capital required depends on the range of eligible products.

The table below indicates the regulators in charge of regulating and supervising OTC transactions in different jurisdictions:

Table 3: Regulators of Survey Respondents in Charge of Regulating and Supervising OTC Transactions

Jurisdiction	Regulator
Argentina	The SROs are in charge, under the supervision of the CNV
Brazil	CVM, securities SROs, and Brazilian Central Bank
Chile	There is no specific regulator for OTC transactions.
Chinese Taipei	Financial Supervisory Commission of the Executive Yuan is in charge of regulating and supervising all OTC transactions/intermediaries/products. Any financial business conducted by a financial institution that involves foreign exchange
Colombia	The SFC and the Colombian self regulatory organization, 'Autorregulador del Mercado de Valores' (AMV), share responsibility of regulating and supervising the OTC transactions.
Czech Republic	OTC transaction with financial instruments are under supervision of the Czech National Bank
DIFC	The DFSA as the single integrated regulator for the DIFC, is the independent regulator of such business done in or from the DIFC. Meanwhile the Central Bank of the UAE and the Emirates Securities and Commodities Authority have jurisdiction for the wider UAE.
India	SEBI responsible for primary market (public issues as well as private placement by listed companies). SEBI responsible for secondary market (OTC & Exchange) irrespective of parties (bank or non bank) involved.
Kenya	Kenya, currently does not have a formal operating OTC market. However, upon the development of one, the Capital Markets Authority will be in charge of regulating the OTC market.

Korea	FSC Korea and FSS are in charge of establishing entry requirements for the transaction of OTC derivatives, regulations on business operation, and standards for risk management and monitoring their observance.
Macedonia	The National Bank of Republic of Macedonia is authorized to supervise OTC transactions.
Malaysia	Investment banks are co-regulated by BNM and SC. For banking institutions, their involvement in derivatives transactions is regulated and supervised by BNM, as part of their supervisory process. For selected products such as structured products, the SC's approval is required irrespective of whether it is issued by a banking institution or investment bank.
Pakistan	OTC market is not regulated, however, transactions between mutual funds are, to some extent, supervised and monitored by Mutual Funds Association of Pakistan (MUFAP). Money market brokers are registered with Financial Markets Association (FMA) and transactions with respect to government securities are reported to State Bank of Pakistan.
Panama	The National Securities Commission of Panama is in charge of regulating and supervising the securities market of Panama, which includes OTC transactions
Poland	OTC transactions that involved financial institutions are regulated and supervised in Poland.
Romania	The Romanian National Securities Commission (CNVM) has responsibilities regarding the regulation and supervision of OTC transactions in financial instruments, except for money market instruments.
South Africa	The OTC transactions are unregulated however STRATE is responsible for settlement; custody and administration of money market transactions.

Source: CMB, Task Force Survey.

3.3. Risk Management

Among 15 respondent jurisdictions, 11 have mandatory risk management standards in OTC trading.

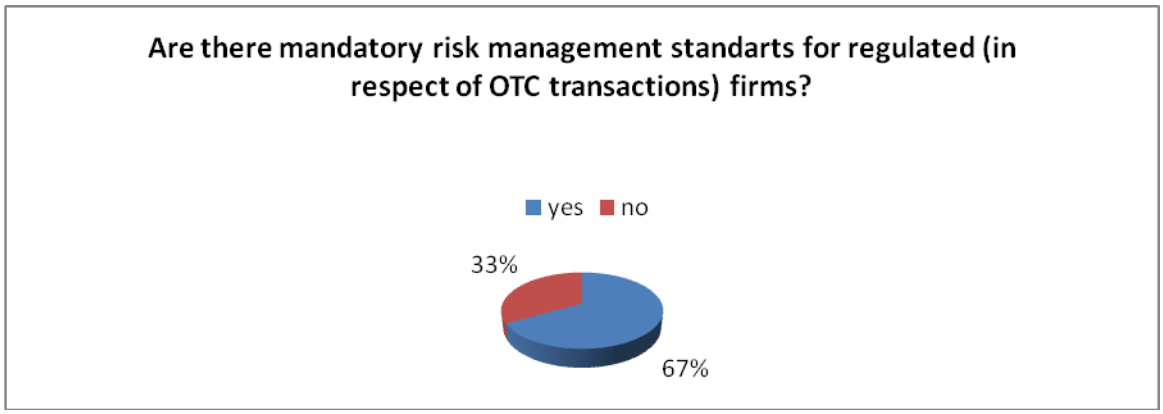
Particularly, in South Africa, the issuers who wish to settle money market securities are required to comply with strict risk management standards to ensure that settlement obligations are fulfilled.

Meanwhile, 11 of the 14 respondent jurisdictions have capital adequacy regulation for OTC transactions.

To give a specific example, in Korea, regulation requires that securities firms maintain at least 150% net capital ratio. However, the securities firms trading OTC derivatives are subject to higher levels of minimum capital requirement. Turkey has

also capital adequacy regulations, where there are risk weights of the derivative transactions in calculating capital adequacy. Almost all jurisdictions in which capital adequacy regulation exist have indicated that their regulation is in line with the international standards. South Africa has stated that the South African Reserve Bank is largely compliant with Basel international standards and requirements.

Figure 9: Risk Management Standards for Firms in Survey Respondents' Jurisdictions



Source: CMB, Task Force Survey.

In terms of collecting and monitoring data, the regulatory bodies of the surveyed jurisdictions regularly collect data about OTC transactions. However, in Poland, there is no such system which enables the collection of data about OTC transactions. The Dubai International Financial Centre (DIFC) is looking to enhance the granularity of the information it receives. Regarding this issue, risk management practices of the firms on OTC transactions are also periodically monitored or supervised in 12 jurisdictions out of 14.

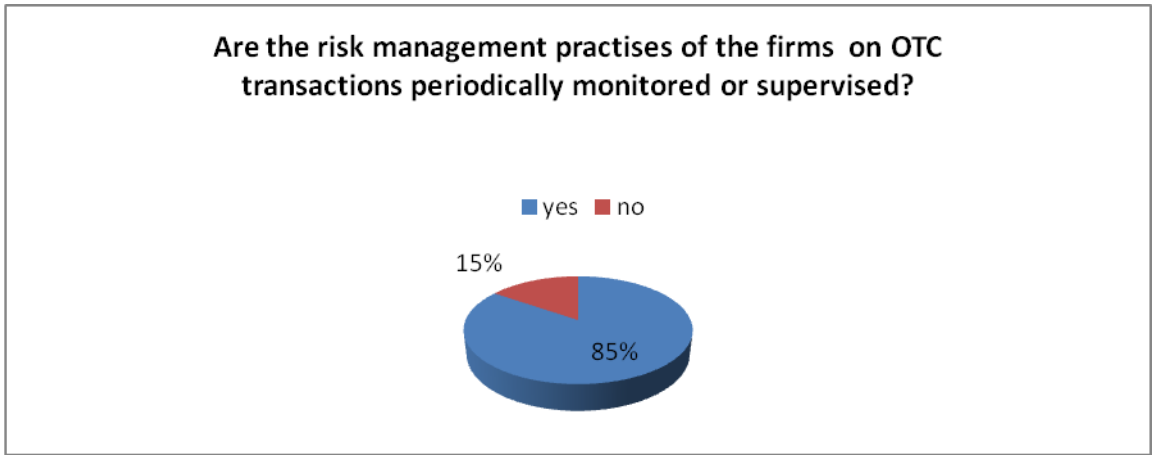
In Chinese Taipei, FSC Taiwan, Taiwan Stock Exchange Corporation and GTSM may carry out special audits on the state of risk management implementation at securities firms or request explanations or corrective actions from securities firms when necessary. Additionally a securities firm that engages in the business of OTC trading in financial derivatives shall comply with the risk management best-practice principles for securities firms announced and implemented by the GTSM together with the Taiwan Stock Exchange Corporation and the Taiwan Securities Association.

In 11 jurisdictions out of 14 respondents who replied to the relevant question of the Survey, risk management practices of firms on OTC transactions are being monitored by regulators. Frequency of this supervision changes amongst different jurisdictions from daily to annual or without any fixed period of inspection.

In terms of cooperation with the international organizations in exchanging data about OTC transactions such as technical assistance or research fund, 11 jurisdictions have stated that they collaborate with international institutions like BIS.

Furthermore, the central banks of Turkey and Malaysia participate in the BIS Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity (For details, please see Appendix 4 – Risk Management Table).

Figure 10: Monitoring and Supervising Risk Management Standards of Firms in Survey Respondents' Jurisdictions



Source: CMB, Task Force Survey.

3.4. Reporting

All jurisdictions have indicated that there is regular reporting about OTC transactions. To give a specific example, in Korea, financial firms that trade OTC derivatives must report trade volume and outstanding amounts of their OTC transactions on a monthly basis according to their underlying assets (interest rates, currency, equity or credit) and type of financial products (forward, option or swap).

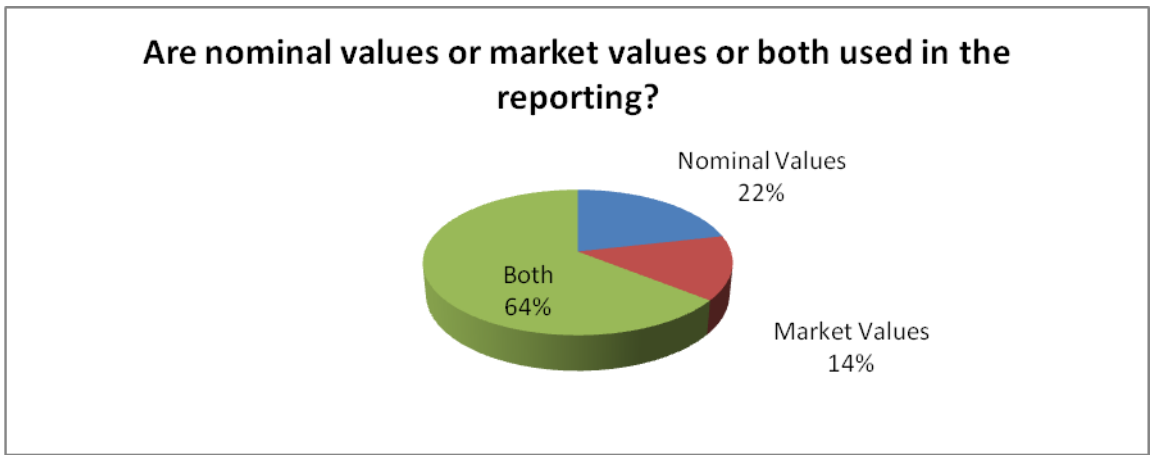
All respondent jurisdictions stated that the reporting regimes of their domestic markets are based on obligatory reporting rather than voluntary practices and also the reporting is prevalently done to both regulators and SROs.

In Brazil, market participants report to the SROs and then the SROs report to the securities regulators. Likewise, in India, the reporting is done to the exchanges and Fixed Income Money Market and Derivatives Association of India (FIMMDA) and they in turn report to SEBI.

In most of the jurisdictions, reporting is done in a period less than a month, except South Africa, Czech Republic and Korea reporting monthly.

Meanwhile, amongst 14 respondent jurisdictions, 3 of them use nominal values in reporting while 2 jurisdictions use market values. The remaining 9 jurisdictions use both nominal and market values in reporting. In Turkey, debt instruments are reported by nominal value and market value whereas, market value is used by banks for derivatives.

Figure 11: Valuation for OTC Transactions



Source: CMB, Task Force Survey.

Excepting Turkey, the remaining 13 respondent jurisdictions have indicated that the reports include all transactions. Particularly in India where all transactions are reported on the trade reporting platforms of Bombay Stock Exchange (BSE), National Stock Exchange (NSE) and FIMMDA.

Although the jurisdictions have different ideas about the creation of a central trade repository (data warehouse) with regular reporting of both nominal and market value data, it is generally believed that this will be a feasible solution to the data problems of the OTC market. Chile states that the central trade repository may be feasible if it has the proper legal framework and if it is cost-efficient to change the platforms of reporting to the same format and protocol. Nevertheless, Chinese Taipei believes that market value reporting is a challenge for securities firms.

According to Korea, for the purpose of efficient data management, introducing a central trade repository can be a feasible solution but a proper cost/benefit analysis should be made. Similarly, DIFC also emphasizes the cost of the practice.

In terms of compliance with International Financial Reporting Standards (IFRS), amongst the 16 respondent jurisdictions half of them indicate that it is obligatory for the firms trading OTC instruments to comply with IFRS, whereas in Korea, preparation of financial statement according to IFRS will become mandatory by 2011 for listed companies and financial firms.

Five jurisdictions have indicated that there is a post-trade disclosure requirement other than reporting for any of the OTC market instruments. For instance, in Colombia, entities are obliged to submit specific reports in order to provide information about the type, scope, dates, nominal amounts and other conditions of the operation, as well as the type of counterparty, parameters used for valuation, and so on. Other information is also reported via registration screens, related to the characteristics of the securities operations (For details, please see Appendix 4 – Reporting Table).

3.5. Valuation Standards and Accounting

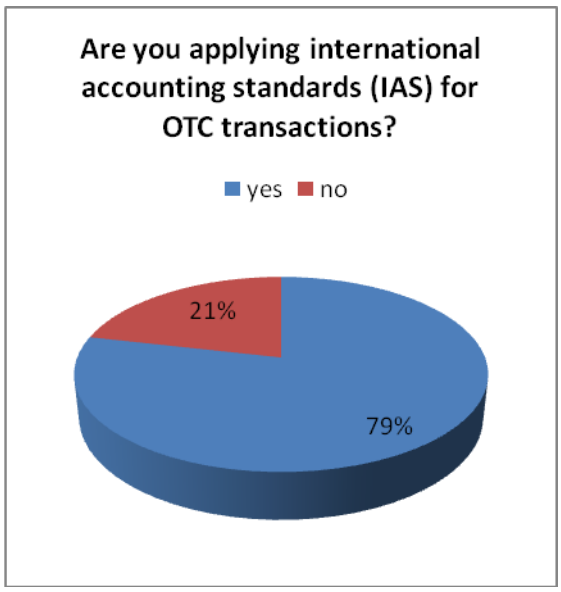
In relation to the major market practices of the valuation of the OTC transactions 5 jurisdictions (out of 9) adopt both fair value and mark to market based valuation. Specifically, in Korea derivatives must be evaluated at fair value. In this context, the data for fair value can be obtained from the market (both exchanges and OTC markets). However, unless fair value is attainable from the market a reasonable alternative pricing model should be adopted.

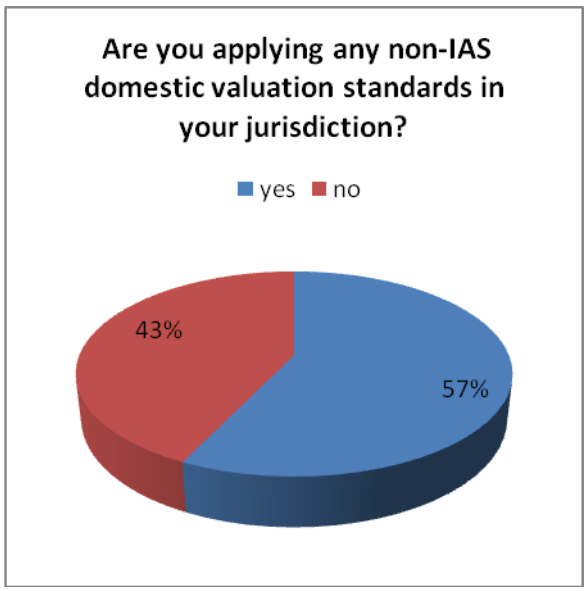
As for the valuation, the jurisdictions that have been surveyed indicate that it is conducted on a daily basis. However, some jurisdictions, such as Chinese Taipei, Korea and Panama, stated that valuation can take place on a monthly basis or on a period longer than a month. Moreover, except for Poland, Malaysia, South Africa and Turkey, for the remaining 8 jurisdictions, valuation standards are the same for different types of financial instruments.

Apart from Pakistan and Colombia, none of the surveyed jurisdictions has encountered valuation problems in relation to OTC transactions.

Among 14 jurisdictions, 12 of them adopt International Accounting Standards (IAS) for OTC transactions while 8 of them adopt non-IAS domestic valuation standards. (For details, please see Appendix 4 - Valuation Standards/Accounting Table)

Figure 12: IAS/Non-IAS Valuation for OTC Transactions





Source: CMB, Task Force Survey.

3.6. Clearing and Settlement

Among the surveyed jurisdictions, transactions are mostly cleared through bilateral agreements. Additionally, in some jurisdictions transactions are cleared through bilateral agreements, central counterparties or private initiatives. To be more specific, in Chinese Taipei, most of the OTC transactions are cleared through bilateral agreements; however, government bonds traded on GreTai Securities Market's (OTC market and bond trading of Chinese Taipei) trading platform are cleared and settled through GreTai.

At the same time, almost all participants favour the central counterparty (CCP) in the clearing of OTC transactions in order to provide investor protection by reducing settlement risks and operational risks. However, according to Poland, CCP should not be over regulated and for Czech Republic it should not be a mandatory request.

Korea has indicated that introducing CCP will bring a positive effect such as preventing the spread of systemic risk in the market, and added that careful consideration needs to be given to those factors of CCP clearing of OTC transaction that might have an impact against the domestic currency market.

Concerning the use of CCPs, half of the 16 jurisdictions have indicated that the CCP clearing should become mandatory for the OTC instruments.

Among the respondent jurisdictions where there is CCP in the process of clearing, only a few of them have stated that clearing is guaranteed by the CCP in the case of default.

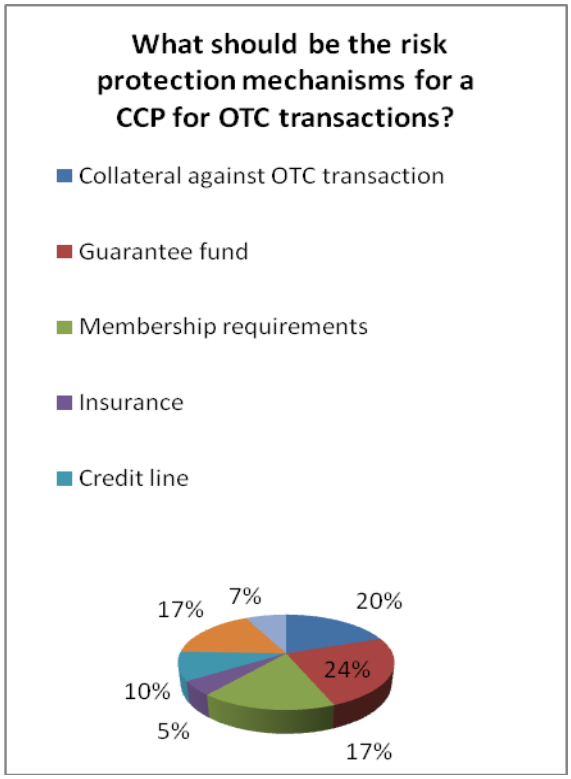
With regard to organizational structure of CCPs, the respondent jurisdictions preferred generally the privately organized CCPs instead of governmentally organized ones. On the other hand, almost all jurisdictions hold the view that an electronic platform is needed for trade comparison or matching for OTC derivatives. As an example, for

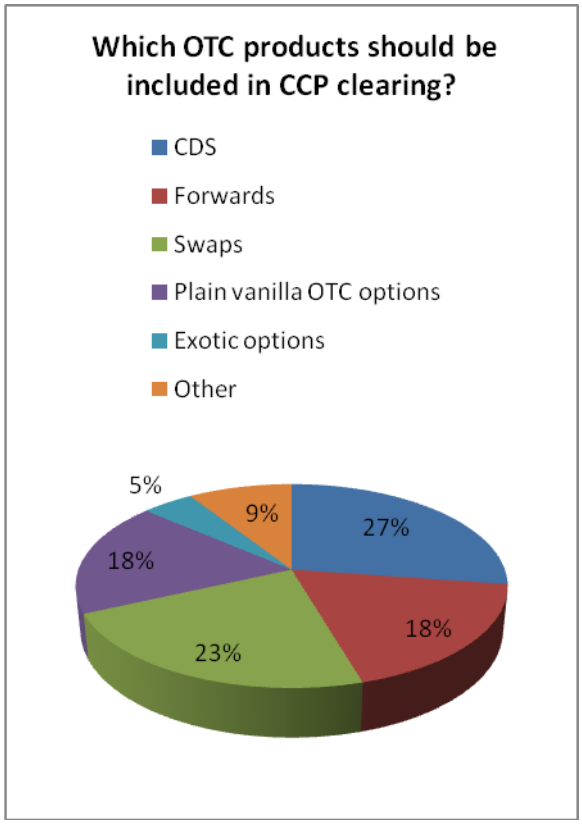
Chinese Taipei, building up electronic platforms for trade comparison or matching of OTC derivatives enhances the efficiency and transparency of trading.

Additionally, the majority of the surveyed jurisdictions have the opinion that higher fee rates or new margin requirements mitigate the advantage of OTC clearing via CCP, since one of the main reasons for OTC trading is its cost-effectiveness.

Besides, participants have indicated that the scope of the OTC clearing guarantee for the CCP should be limited rather than unlimited, even though there are some jurisdictions such as Chile and Macedonia that favour unlimited guarantee. Related to this issue, Kenya has explained that unlimited guarantee will just encourage irresponsible behaviour from investors, issuers and traders of these securities (For details, please see Appendix 4 – Clearing and Settlement Table).

Figure 13: CCP Clearing for OTC Products





Source: CMB, Task Force Survey.

3.7. Collateralization

Regarding collateralization, amongst 14 jurisdictions 10 of them utilize collateral to mitigate counterparty credit risks on OTC derivatives transactions. In Chile, however, it will depend on the risk management practice of each entity. On the other hand in Malaysia, as a market practice, collateralization arrangements with clients are usually based on negotiation with the clients. Likewise in Chile, each entity requests an amount of collateral which is based on its own experience, the nature and risk of the operations, the conditions of the economy and other factors.

In relation to the capital adequacy regulations of the participants that compensate risks related to OTC markets, Chinese Taipei, Colombia, Czech Republic, South Africa, Malaysia, Korea, Poland and Romania indicated that they have such regulations. On the contrary, in Turkey, there are no capital adequacy regulations about risks related to OTC markets for the securities firms, whereas for banks, there are rules regarding the overall derivative market.

Half of the respondent jurisdictions have indicated that clearing of cross border OTC transactions should also be covered by a CCP. However, the pre-emptive measures should take some factors into account, such as feasibility of cross border surveillance and unanimity of cross border regulations, in order to attain the goal of building up a CCP system. Additionally, most of the jurisdictions support the links between CCPs, considering the negative impacts on domestic currency market (For details, please see Appendix 4 – Collateralization Table).

3.8. Financial Crisis and OTC Markets

According to the survey responses; a financial crisis, a market failure or firm-specific financial failure in respect of OTC transactions has not been observed in most of the respondents' jurisdictions during the current global crisis.

However in Korea, some corporate end-user investors who sold OTC currency options suffered from unexpected increase in volatility during the financial crisis. Also in South Africa, one derivative member of the Johannesburg Stock Exchange (JSE) failed to meet its margin calls on the regulated market as a result of failure by its client to meet its obligations on the OTC market.

With regard to emergency measures taken by government to support the OTC market during the crisis, only a few jurisdictions (Brazil and Colombia) have released their ideas about the issue. The rest of the surveyed jurisdictions have indicated that they do not take any measures in an emergency situation to back up the OTC market.

Nevertheless, the Colombian government developed a capital reserve policy for credit entities, in order to protect their capital adequacy, due to the possible problems that could be faced during and/or after the financial crisis. In Brazil, however, the CVM has imposed higher levels of post trade transparency information on OTC trades and registered data trade repositories (For details, please see Appendix 4 – Financial Crisis and OTC Markets Table).

Chapter 4 Regulatory Issues Regarding OTC Markets

The previous chapter analyzed the survey results and provided a picture of the current situation of the OTC markets in emerging countries. In this chapter, the regulatory issues are examined in order to analyze the problems of the OTC markets. Among different issues, 8 of the important ones are covered in this section as follows: market entry; investor protection; standardization; clearing/central counterparty clearing; transparency; data/reporting; collateralization; risk management and valuation. At the end of each section the recommendations on each issue discussed are provided.

4.1 Market Entry

10 of the 25 respondents reported that there is an authorization and/or minimum entry requirement for OTC trading in their jurisdictions, while 7 jurisdictions stated that there are not any authorization and/or minimum entry requirements for OTC trading.

The minimum market entry requirements for OTC transactions should be set at a much higher standard than the exchange traded products. This will help to force financial institutions to employ better policies, especially in terms of capital adequacy, qualifications of employees, risk management practices, and so on. Especially, in terms of risk management practices, the role of regulators is of particular importance. Regulators should develop appropriate standards for OTC transactions and they should pay special attention not to adopt a *one size fits all* approach while doing this. In addition, it should be taken into consideration that different sizes and types of financial institutions may require more specific regulatory design in this respect.

Recommendation 1: Regulators should ensure that the financial intermediaries trading in OTC derivatives market have the minimum regulatory capital, competent and suitably qualified personnel, technical infrastructure and robust risk management standards. Financial institutions should particularly be required to have a minimum capital to absorb the risks that they face regarding OTC derivatives transactions. However, among other requirements the minimum amount of capital is of particular importance. Regulators may also encourage financial firms to employ, to a greater extent, economic capital for the OTC transactions.

4.2 Investor Protection

The opaque nature of some OTC transactions has been discussed for some time by regulators and international organizations. This particular issue requires more risk disclosure in OTC products. Especially, after the financial turmoil, this aspect of OTC products has come under close scrutiny and national and international authorities have focused their attention on risk disclosure measures of OTC products. Within this context, enhancing market discipline through effective risk disclosure practices for derivatives and OTC products is both vital and necessary.

On the other hand, Pillar III of Basel II creates incentives for developing and enhancing disclosure standards for financial institutions. Similarly, as indicated in the IOSCO Objectives and Principles of Securities Regulation, full disclosure of information material to the decisions of investors is the most important means for

ensuring investor protection.[15] Therefore, one of the most important policies needed to improve investor protection is enhancing disclosure in financial markets. However, it should be noted that investor protection can be achieved by full disclosure of information regarding all kinds of financial products to investors and especially applying a suitability test[16] for each of the investors. This suitability procedure should take into account, factors such as the financial experience of the investor, financial standing, risk perception, and especially will assist the investor to assess the riskiness of OTC products.

Recommendation 2: In order to enhance investor protection through effective market discipline framework in OTC transactions, jurisdictions should set standards for disclosure regarding the risks and features of derivative instruments and/or transactions.

Recommendation 3: Regulators should set standards requiring financial intermediaries to assess the investment objectives, financial situation, knowledge and experience of unsophisticated OTC investors with suitability tests.

4.3 Standardization

OTC market products are known for their nonstandard nature and flexibility. Through this flexibility, OTC market products have well gone beyond the equivalent exchange-traded products. For example, according to the BIS and Futures Industry Association (FIA) data, in the global derivative markets there is dominance in the OTC markets side, where the 91% of the overall notional amounts outstanding belong to OTC markets and 9% belongs to organized markets as the end of 2008.[17]

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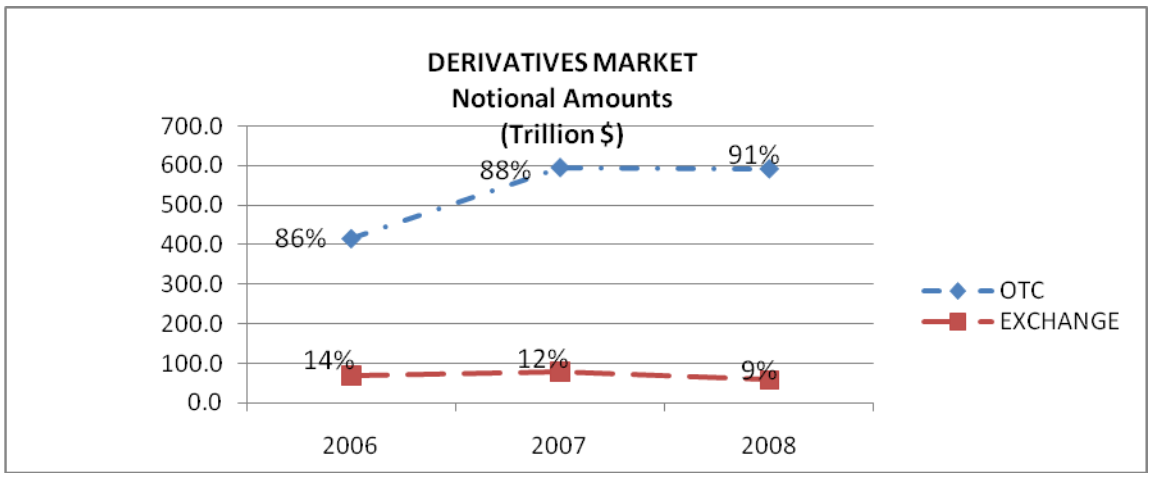
15 IOSCO, Objectives and Principles of Securities Regulation, April 2008 available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD265.pdf.

16 Suitability test is a process which is required by the MiFID and in which the firm asks the investors some questions to reach an understanding of the types of investments that will be suitable for them. See, CESR, A Consumer's Guide to MiFID-Investing in Financial Products, March 2008 available at http://www.cesr.eu/popup2.php?id=4984.

17 IFSL, IFSL Research: Derivatives 2009, June 2009 available at http://www.thecityuk.com/media/2324/Derivatives%202009.pdf.

Figure 14: Notional Amounts of Derivatives Market



Source: FSA (2009:1).

Another aspect is that, it should also be evaluated which aspects of these instruments should be standardized. In this framework, it would be meaningful to differentiate between contractual standardization and process standardization. The related definitions are provided below:[18]

1- *Contractual standardization:* The process of defining uniform contract clauses, for example, standardized clauses on maturities, coupons, settlement/clearing rules and jurisdictions; and
2- *Process standardization:* The organizational and technical alignment of trade execution, clearing, and settlement processes across the financial industry.

Both of these categories of standardization are significant because both are required in moving OTC transactions to the organized markets or exchanges and then increasing the use of CCPs. The discussions related to CCPs will be handled in part 4.4 of this chapter. In this section, the standardization regarding the aim of moving the transactions to the exchanges will be evaluated.

During the global financial crisis, one of the main issues discussed among regulators and international bodies has been the standardization of OTC derivatives contracts in order to reduce financial risks and to facilitate the adoption of post-trade processes. Most of the jurisdictions and international organizations underline the fact that standardization would help the objective of moving the trading of derivatives to organised markets and trading platforms.[19] That would also result in an increase in

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18 The Global Derivatives Market – A Blueprint for Market Safety and Integrity, Deutsche Börse Group, White Paper, September 2009 available at http://deutsche-boerse.com/dbag/dispatch/en/binary/gdb_content_pool/imported_files/public_files/10_downloads/80_misc/whitepaper_derivatives2.pdf. .

19 Post-crisis recommendations include the transfer of OTC market transactions to the organized and regulated markets to the extent possible. In this context it would be meaningful to discuss the relationship of the OTC markets and the organized markets. Jens Nystedt (2004:7) argued that OTC and organized markets can both complement and compete with each other. For example, the large broker/dealers of OTC derivatives frequently rely on a liquid organized market to dynamically hedge their market risk. Conversely, organized futures and derivatives

the trade information available to the supervisors who will then have the opportunity of carrying out system-wide monitoring.

In this respect, Deutsche Börse Group notes that "unlike other financial instruments, exchange-traded and standardized OTC derivatives have remained remarkably liquid throughout the financial crisis"[20]. The current financial crisis has demonstrated that standardization also has positive effects on liquidity and exchange-traded derivatives provide full post-trade transparency which includes real time price and volume data about the contracts. Another benefit revealed in price discovery is that organized markets are neutral market places which are transparent and open to all participants.

On the other hand, from the perspective of market participants, standardized contracts would mean reduction in product diversity which will lead to have fewer instruments in hand for managing the diverse and complex underlying risks. As is known, one of the basic characteristics of the OTC derivatives products is *flexibility*. To put it another way, OTC derivative products are tailor-made products and this important feature facilitates the hedging of specific risks by providing bespoke contracts for the users. It should be underlined however, that insisting too much on standardization, i.e. trying to standardize all OTC instruments, could have negative impacts on liquidity of market.

Thus, the positive aspect of standardization is that it would facilitate to constitute more regular and cost effective market surveillance. In other words, it gives the opportunity to supervisors and regulators to better monitor the market and the data problem would, to a large extent, be solved. Another benefit is seen in the robust price discovery mechanism of the organized markets. The organized markets require standardization in order to efficiently include multiple parties in price discovery. On the other hand, it should be noted that it is not possible to standardize all types and aspects of OTC markets transactions, as it could diminish the OTC market. Instead, the types and features of transactions, instruments and/or processes should be selected and standardization should not negatively affect the flexibility of some contracts which are critical in meeting the hedging needs of users.

Recommendation 4: In order to help to enhance the data quality and reporting standards of OTC transactions, standardization should be achieved for systemically critical products where possible. Therefore, emerging countries should assess their markets in terms of products traded in order to decide which OTC products are systemically critical.

Besides, in the process of standardization, the balance between standardization and market efficiency and liquidity should be considered.

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markets in the U.S. face competitive pressure from OTC markets who are offering fairly similar contracts but are unburdened by regulatory and supervisory oversight. To a certain extent, the competition between OTC derivatives and organized market derivatives is determined by the structure of the contracts and what type of risk the end users would want to hedge (For details see, Nystedt, J., Derivative Market Competition: OTC Markets Versus Organized Derivative Exchanges, IMF Working Paper, April 2004).

[20] The Global Derivatives Market – A Blueprint for Market Safety and Integrity, Deutsche Börse Group, White Paper, September 2009.

Recommendation 5: The types of transactions and the aspects of contracts to be standardized should be carefully decided as all types and aspects of OTC market instruments are not suitable for standardization.

4.4 Clearing/Central Counterparty Clearing

In equity markets, post-trade transactions which include exchange of cash and transfer of ownership are executed very quickly. However, in the case of derivatives it can last up to several years which mean long-term exposure to risks. During that period, there could be large claims among parties and there is always the risk of default. In this context, clearing becomes one of the most important functions from a risk management point of view. Clearing can either occur at a bilateral level between two counterparties to a particular trade or at a multilateral level, by means of a CCP becoming the counterparty to all other counterparties.[21]

Another issue is that, CCPs are the actors that consolidate and manage risks. As an intermediary, they help to reduce the information asymmetry among participants. The exchange-traded derivatives are always centrally cleared which includes the full collateralization of open risk positions and guaranteeing the fulfilment of contracts. Approximately 33% of the overall notional value of OTC derivatives are cleared via CCPs. The OTC derivatives which are not cleared via CCPs (67%) are either bilaterally collateralized (35%) or (approximately one-third of the market, 32%) not collateralized at all.[22]

CCP clearing seems to be an effective way of reducing systemic risk and a safer way of mitigating counterparty risk. Counterparty risk can have a destroying effect on firms as was experienced in the AIG case during the recent crisis. In order to increase the usage of CCP clearing, regulators and market participants should jointly work on defining the products to be eligible for CCP clearing. On the other hand, there are some discussions around CCP clearing on whether to mandate the CCP clearing or not for the defined products. However, not all of the overall derivative market products have the same liquidity and due to the need for tailor-made products for hedging reasons, it is not possible to centrally clear all types of products. In this context, the UK's Financial Services Authority (FSA) recommends setting challenging targets for CCP usage with active monitoring of progress rather than mandate the use of CCP clearing.[23]

As is known policy makers in many jurisdictions, primarily in the US and Europe, have agreed on the necessity to move as many OTC derivatives as possible to CCPs which are eligible for central clearing. This serves the aim of "preventing the default of one market participant from spreading counterparty risk throughout the financial

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21 Ensuring Efficient, Safe and Sound Derivatives Markets, Commission Staff Working Paper, Commission of the European Communities, 3.7.2009 available at http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/report_en.pdf.

22 The Global Derivatives Market – A Blueprint for Market Safety and Integrity, Deutsche Börse Group, White Paper, September 2009.

23 FSA and HM Treasury, Reforming OTC Derivative Markets – A UK Perspective, December 2009 available at http://www.fsa.gov.uk/pubs/other/reform_otc_derivatives.pdf.

system."[24] Additionally, the G-20 recommends that financial institutions continue to strengthen the infrastructure supporting OTC derivatives markets. For this purpose, the G-20 explains that for credit derivatives, this includes standardizing contracts to facilitate their clearing through a central counterparty and it concludes that national authorities should enhance incentives for the use of CCPs to clear OTC credit derivatives.[25]

However, there are several discussions around the use of CCPs, one of the main ones being about costs. Especially for jurisdictions that have relatively small OTC markets, the cost benefit analysis should be conducted carefully. Another critical factor for decision making is *the risk of getting it wrong*. It may develop into an issue for a market when the things go wrong as a CCP is "the ultimate too-big-to-fail institution".[26] Having the role of reducing counterparty risk for market participants, a CCP itself may be exposed to a number of risks[27], which can be summarized as counterparty credit risk, liquidity risk, custody risk, investment risk, operational risk and legal risk.

The recommendations by the Joint Forum include that regulators could require that all standardized OTC derivatives are cleared through regulated CCPs, and to make this measure effective regulators would need to require that CCPs impose robust margin requirements.[28] Similarly, it is stated in the Report of the FSB to G-20 Leaders that the official sector will strengthen capital requirements to reflect the risks of OTC derivatives and further intensify the move to CCPs and, where appropriate, organised exchanges.[29]

Recommendation 6: While jurisdictions that have relatively large and complex OTC markets should assess the use of CCP clearing for CCP eligible products, the jurisdictions which have relatively small and non-complex markets should not need to centrally clear the transactions, as it may impose a considerable cost in doing so.

Recommendation 7: If jurisdictions adopt the use of CCPs, then the standards for doing so should be carefully defined and the required arrangements should be set in order for the system to be effectively operated.

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24 Cookson, R., Asia Launches Reforms for OTC Derivatives, Financial Times Article, 24.02.2010 available at http://www.ft.com/cms/s/0/3b90be9c-2177-11df-830e-00144feab49a.html.

25 G20, Enhancing Sound Regulation and Strengthening Transparency, Final Report, 25 March 2009 available at http://www.g20.org/Documents/g20_wg1_010409.pdf.

26 Cookson, R., Asia Launches Reforms for OTC Derivatives, Financial Times Article, 24.02.2010.

27 For a detailed discussion and recommendations see: Recommendations for Central Counterparties, Committee on Payment and Settlement Systems and Technical Committee of IOSCO, November 2004 available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD176.pdf. .

28 The Joint Forum, Review of Differentiated Nature and Scope of Financial Regulation-Key Issues and Recommendations, January 2010.

29 Financial Stability Board, Improving Financial Regulation, Report of the Financial Stability Board to G20 Leaders, September 2009 available at http://www.financialstabilityboard.org/publications/r_090925b.pdf.

4.5 Transparency

One critical difference between exchange-traded derivatives and OTC derivatives is that the former is more transparent in price formation and the level of positions and the latter is more opaque in nature. As the TFUMP Report in said "because the vast majority of credit transfers are performed on the OTC market, there has been limited centralised sharing and pooling of transaction information."[30]

OTC contracts can be extremely complex and there is insufficient reporting which causes non-transparency in the market. "The complexity and limited transparency of the market reinforced the potential for excessive risk-taking, as regulators did not have a clear view into how OTC derivatives were being traded."[31] The non-transparent structure of OTC markets has long been discussed and there are many recommendations made in order to improve the transparency in the market. The transparency issue is at the heart of the studies regarding OTC markets, since it is very significant in terms of pricing, valuation, liquidity and systemic risk management. Another benefit of transparency is the improvement of market efficiency by enhancing price formation and market discipline.

The recent financial crisis highlighted the extent of globalization in the financial system and the expansion of complex products beyond their classical/national boundaries. Lack of transparency misled regulators and market participants about the risks and when things went wrong this single concept caused significant problems.[32] Nobody, including market participants themselves, were actually aware of the real aggregate size of the market and therefore the amount of real exposures.

To solve the transparency problem, one recommendation is the creation of "data/trade repositories"[33] but it is important to analyze which products should be registered to such repositories. It may not be cost efficient to mandate all products to be registered with repositories.

Additionally, it would be better for regulators and/or SROs to develop repositories. The processes and procedures, communication (the means and the level of

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30 *Unregulated Financial Markets and Products*, Final Report, Report of the Technical Committee of IOSCO, September 2009 available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD301.pdf.

31 Duffie D., Li A., Lubke T., Policy Perspectives on OTC Derivatives Market Infrastructure, Federal Reserve Bank of New York Staff Reports, January 2010 (Revised March 2010) available at http://www.newyorkfed.org/research/staff_reports/sr424.pdf.

32 Two important cases were the Lehman Brothers and AIG. According to the Deutsche Börse Group Report, they held 134,000 and 50,000 active OTC derivative contracts respectively at the time of their banktruptcy, which means too many counterparty relations. See, The Global Derivatives Market – A Blueprint for Market Safety and Integrity, Deutsche Börse Group, White Paper, September 2009.

33 Data/trade repository is a platform where data on traded derivatives contracts is registered and post-trade recordkeeping on contracts is enabled. See, The Global Derivatives Market – A Blueprint for Market Safety and Integrity, Deutsche Börse Group, White Paper, September 2009.

availability), reporting (reporting standards), technical structures and financial requirements are the fields to be reviewed while setting the arrangements.

Another issue with the data/trade repositories is the consolidation/aggregation of the data produced. In order for regulators and supervisors to see the aggregate data, the data should be consolidated. In this context, the decision should be made where and/or by whom the data will be consolidated.[34]

Apart from the data/trade repositories, an important source of transparency – especially about risk positions are the CCPs. CCPs and data/trade repositories would together assist supervisors and the public by disclosing the data about OTC transactions according to the standards established by regulators.

One important dimension of increased transparency is data provision and reporting. As is already known, for the majority of the OTC market there are no or very limited reporting requirements. This dimension will be discussed in detail in part 4.6 of this chapter.

To increase transparency, the US introduced a comprehensive reform of OTC derivatives in May 2009 requiring all *standardized* OTC derivatives to be cleared, dealers and firms who create large exposures to counterparties to be subject to tough regulation (with conservative capital requirements, business conduct standards, margin requirements) and uncleared trades to be reported to a regulated trade repository.

On the EU side, the EC is examining several courses of action for OTC derivatives: standardization, central data repository, central counterparty clearing and moving trading to more public venues.[35]

Recommendation 8: In order to solve the transparency problem in the OTC market, CCPs and/or the trade repositories should be established if economically affordable and functionally useful.

Recommendation 9: Regulatory standards and arrangements including the methods of communication, technical structures, capital requirements, supervision and enforcement should be established for the data/trade repositories. In this context, the regulator should only set out the general framework and principles.

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34 FSA and HM Treasury recommends three alternatives to achive this:

1- by requiring firms to register CCP cleared trades directly with the trade repository;
2- for the relevant CCPs to submit a data feed directly to the repository;
3- for regulators to obtain the data for cleared trades from CCPs directly and then to aggregate the data themselves.

See, FSA and HM Treasury, Reforming OTC Derivative Markets – A UK Perspective, December 2009.

35 Boskovic, T., Cerruti, C. and Noel M., Comparing European and U.S. Securities Regulations: MiFID Versus Corresponding U.S. Regulations, World Bank Working Paper No. 184, 2010 available at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/01/05/000334955_20100105024925/Rendered/PDF/524600PUB0SECU101Official0Use0Only1.pdf.

4.6 Providing Data and Reporting

Providing data and reporting is another vital issue in OTC markets which is closely related to the transparency issue. As mentioned in the previous section, central clearing is important in mitigating counterparty risk. CCPs, together with data repositories, are also important in terms of reporting and providing data on the transactions. Besides improving operational efficiency of OTC markets, these infrastructures, by their nature, are essential sources of information and therefore, substantially contribute to improving market transparency, especially for the market segments not covered by CCPs.[36]

According to the EC; the regulators should be granted full access to the data produced by these infrastructures to perform their supervisory functions and so that the public can access aggregate market information. EU Commission additionally recommends that regulators might be able to obtain participant-specific information directly from CCPs without having to go to the individual participants thus, exempting the latter from the burden of reporting.

Besides, IMF highlighted the importance of providing data and information in OTC trading: "More information disclosure, at a higher level of granularity, about risks and exposures and how they are managed could help to improve market discipline. Proprietary information should not be publicly released, but would still need to be collected (and acted upon in some cases) by those tasked with monitoring and mitigating systemic risks."[37]

In addition, recently, CESR has released a consultation paper to improve the reporting of OTC derivatives which is both about collecting and exchanging reports in various OTC derivative products. The aim here is to detect and prevent market abuse. In this respect, the Commission recommends to make mandatory to collect the transaction reports of OTC derivative instruments whose underlying financial instrument is admitted to trading on a regulated market.[38]

Apart from transaction reporting, position reporting is also significant in terms of monitoring the risk exposure of the firms and market oversight and helps to identify the counterparty obligations of trading parties. The latter is important specifically in the case of default since it can be difficult and lasting to resolve the positions. For example, following the meltdown of Lehman Brothers in September 2008, DTCC

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36 Commission of the European Communities, Consultation Document: Possible Initiatives to Enhance the Resilience of OTC Derivatives Markets, Commission Staff Working Paper, July.2009 available at http://ec.europa.eu/internal_market/consultations/docs/2009/derivatives/derivatives_consultation.pdf.

37 International Monetary Fund, Lessons of the Financial Crisis for Future Regulation of Financial Institutions and Markets and Liquidity Management, February 2009 available at http://www.imf.org/external/np/pp/eng/2009/020409.pdf.

38 CESR, Consultation on Guidance to report transactions on OTC Derivative Instruments, Consultation Paper, February 2010 available at http://www.cesr.eu/data/document/09_768.pdf.

published information on Lehman's CDS exposure based on their records, thereby dampening the effects of widespread speculation.[39]

To sum up, the CCPs and central data repositories are two important potential sources of data for OTC markets. However, setting the standards for reporting, i.e. scope, timetable, procedures, communication and format of the data reported, is an important part of the work that will be done in order to solve the data providing and reporting problems of the market.

Additionally, it should be assessed by IOSCO to collect data of the OTC transactions of the EMC members, as it will contribute to the transparency and disclosure, and facilitate the policy formation process. In order to achieve this, common templates for reports may be formed and the members may be required to use these templates while reporting their derivative trades and outstanding positions.

Recommendation 10: The regular reporting should be provided at least about the amount of the positions and the regulators/supervisors and/or SROs should be granted access to the sources of data directly. The means and format of reporting should be assessed and decided by the jurisdictions themselves according to the level of complexity of their OTC markets.

Recommendation 11: The standards for reporting i.e. scope, timetable, communication and format of the data reported should be set out. In addition to setting standards about the frequency and content of reporting, qualified, timely and proper data should be ensured while reporting.

4.7 Collateralization and Risk Management

Collateralization can be defined as taking an asset as a pledge for a lender against the case of borrower default. As specified earlier, one third of all OTC derivatives are cleared by CCPs. For the contracts that are not cleared through CCPs, risks are bilaterally collateralized or a large part of the contracts (32%) are not collateralized at all.[40] As for the bilateral collateralization, if the collateral is not sufficient then the counterparty risk is large for the contract parties.

Central clearing was handled in sub-section 4.2, and in this section the collateralization of transactions that are not centrally cleared will be discussed. For such transactions the process of bilateral collateralization is very critical, for which regulators should set robust standards for the processes. Bilateral collateralization should be arranged in terms of valuation and margin call processes, operational and legal frameworks and capital requirements.[41]

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39 The Global Derivatives Market – A Blueprint for Market Safety and Integrity, Deutsche Börse Group, White Paper, September 2009.

40 The Global Derivatives Market – A Blueprint for Market Safety and Integrity, Deutsche Börse Group, White Paper, September 2009.

41 Reforming OTC Derivative Markets – A UK Perspective, FSA and HM Treasury, December 2009.

Another risk management tool for the transactions that are not centrally cleared is to arrange appropriate capital charges for the relevant risks. This is very important in terms of risk management of tailor-made products which are not eligible for clearing. The capital charges should be arranged according to the risks, i.e. lower charges/rates for centrally cleared positions and higher charges/rates for those not-centrally cleared.[42]

For bilateral clearing, some legal framework was provided by ISDA which includes a Master Agreement that sets the main contractual parameters and a Credit Support Annex (CSA) that outlines management of counterparties' credit exposures to each other/details about posting collateral in the case of default of one party.

In its *OTC Derivatives: Settlement Procedures and Counterparty Risk Management* report dated September 1998, the Committee on Payment and Settlement Systems (CPSS) highlighted the link of OTC derivatives with systemic risk as follows:

> "Despite the widespread use of bilateral netting, counterparty credit exposures have become a significant source of credit risk to the global financial institutions that are the largest dealers in OTC derivatives. In particular, OTC derivatives are a very significant source of inter-dealer credit exposures. Consequently, if a major global financial institution were to fail, losses to other dealers on OTC derivatives would be a potential channel for the transmission of systemic disturbances. The collateralisation of inter-dealer exposures in principle could greatly reduce the likelihood that systemic disturbances are transmitted through that channel."

In 2007, 9 years after the former report, CPSS published a new report, *New Developments in Clearing and Settlement Arrangements for OTC Derivatives*. According to this report, the total size of OTC derivatives markets, as measured by notional amounts outstanding, increased at an average annual rate of about 20% from the end of 1998 to the end of 2005. The grand total of global OTC derivatives market reached a notional outstanding amount of US$683,814 billion as of 2008 H1 and finally US$604,622 billions as of 2009 H1.[43] As the numbers grew out largely, the concerns about the systemic risk also increased. The recent crisis demonstrated the concerns about OTC derivatives in terms of systemic risk. Additionally, for counterparty risk, the scenarios of Segoviano and Singh (2008) illustrated that when the counterparty risk is large then re-hedging after a counterparty failure will be

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42 In this context, the Basel Committee recommends "Increase the incentives to use CCPs for OTC derivatives and recognise that collateral and mark-to-market exposures to CCPs could have a zero percent risk weight if they comply with the stricter CPSS/IOSCO recommendations for CCPs." (See, Basel Committee on Banking Supervision, Strenghtening the Resilience of the Banking Sector, Consultative Document, December 2009 available at http://www.bis.org/publ/bcbs164.pdf.

43 Bank for International Settlements, OTC Derivatives Market Activity in the First Half of 2009, November 2009.

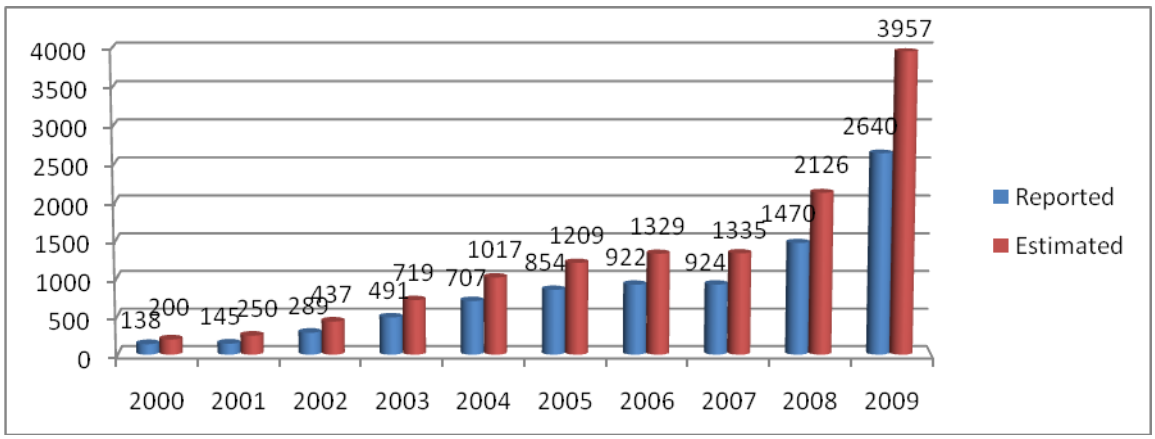
enormous and perhaps unaffordable, which could lead to unanticipated pressures on the financial system.[44]

During the recent crisis, an important issue regarding collateralization and risk management was that market convention permitted firms with the highest credit ratings not to provide collateral to secure their derivatives obligations. Such firms had infinite thresholds and the contractual provisions required these firms to post collateral once the firms' rating falls to a specified credit level. Such an opportunity allowed these firms to amass portfolios consisting of OTC derivatives of significant amounts and risk.[45] [46]

In terms of risk management, the ratings of complex structured products were another problematic field and the role of credit ratings agencies in lowering the risk perception by giving high ratings for the senior tranches of such products has been discussed during the crisis.

The figure below includes the data obtained by the ISDA margin survey in 2009[47] which indicates the collateral use in the over-the-counter derivatives industry since 2000. ISDA estimates the amount of collateral in use at the end of 2008 as approximately $4.0 trillion. The figure highlights the increase in collateral use since 2007.

Figure 7: Collateral Use in the OTC Derivatives Industry (2000-2009)



Source: ISDA Margin Survey, 2009.

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44 Segoviano, M. A. and Singh, M., Counterparty Risk in the Over-The-Counter Derivatives Market, IMF Working Paper, November 2008 available at http://www.imf.org/external/pubs/ft/wp/2008/wp08258.pdf.

45 The Joint Forum, Review of Differentiated Nature and Scope of Financial Regulation-Key Issues and Recommendations, January 2010.

46 Thresholds are often specified as fixed amounts though market participants sometimes seek to provide for a threshold to decrease commensurately with any decrease in credit rating. Particular consideration of this kind of variable threshold has recently been seen in the context of AIG. See, ISDA, Market Review of OTC Derivative Bilateral Collateralization Practices, March 2010 available at http://www.isda.org/c_and_a/pdf/Collateral-Market-Review.pdf.

47 ISDA, ISDA Margin Survey 2009, 2009 available at http://www.isda.org/c_and_a/pdf/ISDA-Margin-Survey-2009.pdf.

It is worth noting that, during the financial crisis, after the problems caused by insufficient collateralization, the market tends to use more collateral.

Recommendation 12: For the transactions that are not centrally cleared, standards for bilateral collateralization should be set. The standards should include valuation, reporting, collateral management processes (i.e. initial margin, maintenance margin, margin call), operational and legal frameworks and capital requirements.

Recommendation 13: For the transactions that are not centrally cleared appropriate capital charges should be arranged for the relevant risks.

4.8 Valuation

Valuation is an important topic in terms of risk management of derivative instruments. Accounting, reporting and valuation problems are among the leading factors of the current financial crisis.

It has been observed that the financial assets that have been overly optimistically valued before the crisis turned into illiquid or toxic assets during the crisis. The special purpose vehicles (SPVs) and other intermediaries that had such toxic assets in their balance sheets have faced significant risk management problems. Therefore, primarily the USA and the other developed countries began to conduct work to review the regulation on valuation standards. Institutions like the IASB and FASB are also working on new standards.

Market value and fair value are the valuation methods primarily used in relation to OTC derivative instruments. Market value refers to the valuation that derives from the up-to-date value in the active market of the OTC derivative instrument whereas, fair value, as defined in FAS 157 is "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date."[48]

On the other hand, an alternative way to measure the size of the derivatives market is to calculate the market value of instruments which refers to how much they would be worth if the contracts had to be settled.

The two key inputs in valuing derivative securities are the price of the underlying asset and the volatility of the asset's return. If a stock option is being valued, for example, the price of the underlying asset is the stock price. If a public firm issued the stock, then the price of the underlying asset, that is, the stock price, can be easily determined from the public exchange where the stock is traded. The volatility of the asset's return is generally measured as the standard deviation of that return.

For exchange-traded derivatives, market price is usually transparent (often published in real time by the exchange, based on all the current bids and offers placed on that

[48] FASB, Statement of Financial Accounting Standards No.157-Fair Value Measurements, September 2006 available at http://www.fasb.org/cs/BlobServer?blobcol=urldata&blobtable=MungoBlobs&blobkey=id&blobwhere=1175820927537&blobheader=application%2Fpdf.

particular contract at any one time). Complications can arise with OTC products though, as trading is handled manually, making it difficult to automatically publish prices. In particular with OTC contracts, there is no central exchange to collate and disseminate prices.

It is crucial to assess the value of OTC derivatives in a realistic manner. In this context, it should be necessary to determine the real values of the related transactions or instruments to identify the true balance sheet value. For the identification of true value in terms of marketable securities, *market value* should be applied as much as possible. In circumstances in which market value is not available, fair value should be used provided that the necessary explanations are made to the investors and the assumptions or constraints are identified.

Recommendation 14: It is crucial to assess the value of OTC derivatives in a realistic manner. In this context, it should be necessary to determine the real values of the related transactions or instruments to identify the true balance sheet value.

Recommendation 15: For the identification of true value in terms of marketable securities, *market value* should be applied as much as possible. In the circumstances where market value is not available, fair value should be used, provided that the necessary explanations are made to the investors and the assumptions or constraints are identified.

Chapter 5 Summary of Recommendations

Market Entry

Recommendation 1:
Regulators should ensure that the financial intermediaries trading in OTC derivatives market have the minimum regulatory capital, competent and suitably qualified personnel, technical infrastructure and robust risk management standards. Financial institutions should particularly be required to have a minimum capital to absorb the risks that they face regarding OTC derivatives transactions. However, among other requirements the minimum amount of capital is of particular importance. Regulators may also encourage financial firms to employ, to a greater extent, economic capital for the OTC transactions.

Investor Protection

Recommendation 2
In order to enhance investor protection through effective market discipline framework in OTC transactions, jurisdictions should set standards for disclosure regarding the risks and features of derivative instruments and/or transactions.

Recommendations 3
Regulators should set standards requiring financial intermediaries to assess the investment objectives, financial situation, knowledge and experience of unsophisticated OTC investors with suitability tests.

Standardization

Recommendation 4
In order to help to enhance the data quality and reporting standards of OTC transactions, standardization should be achieved for systemically critical products where possible. Therefore, emerging countries should assess their markets in terms of products traded in order to decide which OTC products are systemically critical. In the process of standardization, the balance between standardization and market efficiency and liquidity should be considered.

Recommendation 5
The types of transactions and the aspects of contracts to be standardized should be carefully decided as all types and aspects of OTC market instruments are not suitable for standardization.

Clearing/Central Counterparty Clearing

Recommendation 6
While jurisdictions that have relatively large and complex OTC markets should assess the use of CCP clearing for CCP eligible products, the jurisdictions which have relatively small and non-complex markets should not need to centrally clear the transactions as it may impose a considerable cost in doing so.

Recommendation 7
If jurisdictions adopt the use of CCPs, then the standards for doing so should be carefully defined and the required arrangements should be set in order for the system to be effectively operated.

Transparency

Recommendation 8
In order to solve the transparency problem in OTC markets, the CCPs and/or the trade repositories should be established if they are economically affordable and functionally useful.

Recommendation 9
Regulatory standards and arrangements including the methods of communication, technical structures, capital requirements, supervision and enforcement should be established for the data/trade repositories. In this context, the regulator should only set out the general framework and principles.

Providing Data and Reporting

Recommendation 10
Regular reporting should be provided at least about the size of the positions, and the regulators and supervisors and/or SROs should be granted access to the sources of data directly. The means and format of reporting should be assessed and decided by the jurisdictions themselves according to the level of complexity of their OTC markets.

Recommendation 11
The standards for reporting i.e. scope, timetable, communication and format of the data reported should be set out. In addition to setting standards about the frequency and content of reporting, qualified, timely and proper data should be ensured while reporting.

Collateralization and Risk Management

Recommendation 12
For the transactions that are not centrally cleared, the standards for bilateral collateralization should be set. The standards should include valuation, reporting, collateral management processes (i.e. initial margin, maintenance margin, margin call), operational and legal frameworks and capital requirements.

Recommendation 13
For the transactions that are not centrally cleared, appropriate capital charges should be arranged for the relevant risks.

Valuation

Recommendation 14
It is crucial to assess the value of OTC derivatives in a realistic manner. In this context, it should be necessary to determine the real values of the related transactions or instruments to identify the true balance sheets.

Recommendation 15
For the identification of true value in terms of marketable securities, *market value* should be applied as much as possible. In the circumstances where market value is not available, fair value should be used, provided that the necessary explanations are made to the investors and the assumptions or constraints are identified.

Chapter 6 Conclusion

The purpose of this study is to examine the OTC markets of the EMC member jurisdictions; their current approaches to and experience with regulating OTC markets and derivatives trading; their thoughts regarding the future of regulating OTC markets; and to report these findings along with possibly unifying suggestions.

The report analyzes the regulatory issues for emerging markets about OTC markets and derivatives trading. In order to understand the current approaches to and experience with regulating OTC markets and derivatives trading; the survey was conducted and the results of the survey contributed to the study. However, it should be noted that the recommendations of the report provide a general framework for jurisdictions and further research and more studies should be conducted for country-specific issues such as regulatory fields, transparency issues, reporting standards, bilateral collateralization and capital charges.

Currently, a vast number of unique products are being carried out on OTC derivative markets which are often characterized as being traded relatively infrequently, although often in significant size, and almost exclusively through the commitment of dealers. The OTC derivative markets have grown dramatically in the recent years, but have remained largely unregulated. The main problems with the OTC markets discussed during the crisis can be summarized as lack of transparency, improper reporting, failings in risk management and collateralization and inadequacies/inefficiencies in supervision and regulation.

In this report, the situation of emerging markets in relation to OTC market transactions and the discussions relating to OTC market related issues have been examined. Moreover, recommendations for dealing with these issues have been made. In developing the recommendations international reports have been reviewed and the results of the applied surveys have been consolidated and analyzed in detail in order to determine the appropriate remedies for various issues.

The most important implication of the survey is the *data* problem of the jurisdictions for OTC transactions. Even though most jurisdictions that have been surveyed stated that there is regular reporting in their OTC markets, few jurisdictions could provide the required data that was required by the questionnaire. This demonstrated the lack of an organized and aggregate data source in relation to the overall risk positions. The markets could be more easily understood and analyzed if the data problem could be properly solved. If the related bodies and parties can see the aggregate picture, then it would be easier to manage the relevant risks for single firms and at the consolidated market level.

The OTC markets in emerging countries are not as developed and complex as the ones in the developed countries. The respondents state that there was not a significant problem and/or failure that resulted from the OTC transactions except in a number of small cases. For this reason, some of the recommendations provided are separated according to the level of their development. The regulatory issues of OTC markets covered in this report are *standardization, clearing/central counterparty clearing, transparency, data providing and -/reporting, collateralization, risk management and valuation* and for each issue the recommendations are made in the previous chapter.

The recommendations can be summarized as the following:

- Regulators should ensure that the financial intermediaries trading in OTC derivatives market have the minimum regulatory capital, human resources, technical infrastructure and risk management standards;

- In terms of investor protection, jurisdictions should set standards for risk disclosure regarding OTC derivative instruments and/or transactions and arrangements for the suitability tests;

- Standardization should be achieved for systemically critical products where possible but the balance between standardization and market efficiency and liquidity should be considered;

- The types of transactions and the aspects of contracts to be standardized should be carefully decided;

- Jurisdictions that have relatively large and complex emerging markets should assess the use of CCP clearing for CCP eligible products. The jurisdictions which have relatively small and non-complex markets should not need to centrally clear the transactions as a considerable cost might be imposed in doing so;

- For jurisdictions that adopt the use of CCPs, the standards for CCPs should be carefully defined and the required arrangements should be set in order for the system to be effectively operated;

- Trade repositories should be established if economically affordable and functionally useful;

- The regulatory standards and arrangements including the methods of communication, technical structures, capital requirements, supervision and enforcement should be set for the data/trade repositories;

- Regular reporting should be provided at least about the amount of the positions and the regulators/supervisors and/or SROs should be granted access to the sources of data directly;

- Besides setting standards about the frequency and content of reporting; qualified, timely and proper data should be ensured while reporting;

- The standards for bilateral collateralization should be set for the transactions that are not centrally cleared;

- For the transactions that are not centrally cleared appropriate capital charges should be arranged for the relevant risks; and

- The value of OTC derivatives should be assessed in a realistic manner and market value should be applied as much as possible.

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Appendix 1 List of Task Force Members

TASK FORCE ON OTC MARKETS AND DERIVATIVES TRADING	
No	**Jurisdiction**
1	Turkey (Chair)
2	Israel
3	Argentina
4	Malaysia
5	UAE
6	Poland
7	Brazil
8	Ghana
9	Korea
10	India
11	Kenya
12	Romania
13	South Africa
14	Papua New Guinea
15	China
16	DIFC
17	Chile
18	Barbados
19	Chinese Taipei

Appendix 2 Survey Questions

TASK FORCE ON OTC MARKETS AND DERIVATIVES TRADING

Questionnaire for Survey on OTC Markets and Derivatives Trading Models in Emerging Markets

Definitions

For the purpose of this survey, key terms are defined as follows:

'OTC markets' means decentralized markets for securities not listed on an exchange and where the market participants trade over the telephone, facsimile or electronic networks instead of at a central exchange or trading floor.

'Notional amounts outstanding' means gross nominal or notional value of all deals concluded and not yet settled on the reporting date. For contracts with *variable nominal or notional principal amounts*, the basis for reporting is the nominal or notional principal amounts at the time of reporting.

'Gross market values' means the sums of the absolute values of all open contracts with either positive or negative replacement values evaluated at market prices prevailing on the reporting date.

'OTC derivative' means a derivative instrument which is traded over-the-counter where the value of the instrument is derived from or otherwise dependent on the value of a debt or equity security instrument or instruments that are admitted to trading on a regulated market.

'Single-name CDS' means a credit derivative swap where the reference entity is a single name.

'Multi-name CDS' means a credit derivative swap where the reference entity is more than one name, as in portfolio or basket CDS or CDS indices. A basket CDS is a CDS where the credit event is the default of some combination of the credits in a specified basket of credits.

Abbreviations

ABS	: Asset-Backed Securities
CCP	: Central Counterparty
CDO	: Collateralized Debt Obligation
CDS	: Credit Default Swap
CFD	: Contract for Differences
CLN	: Credit Linked Notes
FRA	: Forward Rate Agreements
FX	: Foreign Exchange
MBS	: Mortgage-Backed Securities
OTC	: Over the Counter
SRO	: Self-Regulatory Organization

QUESTIONNAIRE

CONTACT DETAILS:

Name of jurisdiction:	
Name of contact person and contact details:	

QUESTIONS:

Scope and Size of OTC Market

Please indicate in the table below the market in which the following instruments are traded.

Instrument	**Is it traded in your country?**	
	OTC	**EXCHANGE**
Debt Instruments		
Bonds		
Government bonds	……	……
Municipal bonds	……	……
Private sector bonds	……	……
CDs	……	……
Commercial papers	……	……
Repos-Reverse repos		
Government	……	……
Private	……	……
Derivatives		
Foreign exchange contracts		
Outright forwards and forex swaps	……	……
Currency swaps	……	……
Options	……	……
Interest rate contracts		
FRAs	……	……
Swaps	……	……
Options	……	……
Equity-linked contracts		
Forwards	……	……
Swaps	……	……
Options	……	……
Commodity contracts		
Agricultural commodity (food)	……	……
Agricultural commodity (non-food)	……	……
Non-precious metals	……	……
Precious metals	……	……
Energy	……	……
Other	……	……
Credit default swaps		
Single-name instruments	……	……
Multi-name instruments	……	……
Leveraged spot trading		
Forex	……	……
Commodities	……	……
CFDs	……	……
Unallocated	……	……
Structured Products		
ABS	……	……
MBS	……	……
CDO	……	……
CLN	……	……
Other (Please specify)	……	……
Other (Please specify)		
……	……	……
……	……	……
……	……	……
……	……	……

Indicate in the table below the size of the OTC market in terms of nominal or notional principal amounts outstanding and gross market values as of **2009/Q3.**

Instrument	Nominal/Notional Amount (In millions of US Dollars)		Gross Market Value (In millions of US Dollars)	
	OTC	Exchange	OTC	Exchange
Debt Instruments	……	……	……	……
Bonds	……	……	……	……
Government bonds	……	……	……	……
Municipal bonds	……	……	……	……
Private sector bonds	……	……	……	……
CDs	……	……	……	……
Commercial papers	……	……	……	……
Repos-Reverse repos	……	……	……	……
Government	……	……	……	……
Private	……	……	……	……
Derivatives	……	……	……	……
Foreign exchange contracts	……	……	……	……
Outright forwards and forex swaps	……	……	……	……
Currency swaps	……	……	……	……
Options	……	……	……	……
	……	……	……	……
Interest rate contracts				
FRAs	……	……	……	……
Swaps	……	……	……	……
Options	……	……	……	……
	……	……	……	……
Equity-linked contracts				
Forwards	……	……	……	……
Swaps	……	……	……	……
Options	……	……	……	……
	……	……	……	……
Commodity contracts				
Agricultural commodity (food)	……	……	……	……
Agricultural commodity (non-food)	……	……	……	……
Non-precious metals	……	……	……	……
Precious metals	……	……	……	……
Energy	……	……	……	……
Other	……	……	……	……
	……	……	……	……
Credit default swaps	……	……	……	……
Single-name instruments				
Multi-name instruments	……	……	……	……
	……	……	……	……
Leveraged spot trading	……	……	……	……
Forex				
Commodities	……	……	……	……
	……	……	……	……
CFDs	……	……	……	……
Unallocated	……	……	……	……
	……	……	……	……
Structured Products				
ABS				
MBS	……	……	……	……
CDO	……	……	……	……
CLN	……	……	……	……
Other (Please specify)	……	……	……	……
	……	……	……	……
	……	……	……	……
Other (Please specify)				
……	……	……	……	……
……	……	……	……	……
……	……	……	……	……
……	……	……	……	……

Indicate in the table below the financial intermediary type and the estimated percentage of the OTC transactions for each type.

Type of the Financial Intermediary	**Percentage of Transactions**
Credit institutions	
Investment banks	
Electronic trading platforms	
Securities firms	
Insurance companies	
Other finance companies	
Other (Please specify) …… …… ……	

Are retail investors allowed to trade in OTC markets? **Yes/No.**

If yes, are there any investor protection and compensation mechanisms?

What is the most prominent reason for OTC trading? Rank in order of importance.

Rank	**Speculation**	**Hedging**	**Other (Please specify)** ……
Most important			
Important			
Least important			

Authorization to Engage in OTC Transactions

Is there any authorization and/or minimum entry requirement for OTC trading?
Yes/No.

If yes, please specify on a product basis (for the products covered in the Table of Question 2), the products for which authorization and/or minimum entry requirement exist.

If there is a requirement for authorization, then who gives the authorization?

☐ Governmental institution

☐ SRO

☐ Other (Please specify)……..

Which regulators are in charge of regulating and supervising OTC transactions? Are there different regulators for different transactions/intermediaries/products? If so, please specify.

Risk Management

Are there mandatory risk management standards for regulated (in respect of OTC transactions) firms?
Yes/No.

Are those standards adequate?

Is there any SRO setting supplementary self-regulations for intermediaries?

Are the risk management practices of the firms on OTC transactions periodically monitored or supervised?
Yes/No.

If yes,

How often?

By whom?

☐ Regulators ☐ SROs ☐ Both

Is there any capital adequacy regulation for OTC transactions?
Yes/No.

Do you think this regulation is in line with international standards?
Yes/No.

Do the regulatory bodies regularly collect and monitor the data about OTC transactions?
Yes/No.

Do you cooperate with international organizations in exchanging data about OTC transactions? (Technical assistance, research fund, etc)
Yes/No.

If so, what kind of data do you supply to them? Does the data well represent the real situation? (i.e. does the data include all transactions? Is the valuation for these transactions fair enough to reflect real value?)

Do they provide you any feedback or technical aid?

Reporting

Is there any regular reporting about OTC transactions? Please specify on a product basis with regard to Table of Question 2.

If there is regular reporting,

Is it voluntary or obligatory to report?

Is the reporting done to the regulatory bodies or SROs?

Are nominal values or market values or both used in the reporting?

How often is the reporting done?

☐ Less than a month ☐ Monthly ☐ Quarterly ☐ Semi-annually ☐ Yearly

Do the reports include all transactions?

If the reports do not include all transactions, please estimate the share of the transactions (both the nominal value and the market value) that are not included in the reports as a percentage of the approximate market size.

What do you think about constituting a central trade repository (data warehouse) with regular reporting of both nominal and market value data? Can it be a feasible solution to the data problems of the OTC market?

Is it obligatory for the firms trading OTC instruments to comply with the international financial reporting standards (IFRS)?

Is there a post-trade disclosure requirement other than reporting for any of the OTC market instruments in your jurisdiction? **Yes/No.**

If so, please describe the system in brief.

Valuation Standards/Accounting

What is the major market practice of the valuation of the OTC transactions (fair value and/or mark to market based valuation)?

What is the frequency of valuation?

☐ Daily ☐ Weekly ☐ Monthly ☐ More than a month

Are the valuation standards the same for different types of financial instruments?
Yes/No.

If no, please specify in a short list.

Are you applying international accounting standards (IAS) for OTC transactions?
Yes/No.

Are you applying any non-IAS domestic valuation standards in your jurisdiction?
Yes/No.

Have you ever encountered valuation problems in relation to OTC transactions?
Yes/No.

If so, have these problems caused firm-specific financial failure or systematic problems?

Clearing and Settlement

How are the transactions cleared? (i.e. bilateral agreements, central counterparties, private initiatives)

Do you favour the central counterparty clearing of OTC transactions?
Yes/No.

If so, please elaborate your views.

Should the CCP clearing be mandatory or optional for the OTC instruments?

☐ Mandatory ☐ Optional

If there is a central counterparty in the process of clearing, is the clearing guaranteed by the central counterparty in the case of default?

If you think a central counterparty is needed, then what should be the organizational structure? (i.e. governmental or private?)

Is an electronic platform needed for trade comparison or matching for OTC derivatives?
Yes/No.

How should the scope of OTC clearing guarantee for the CCP be? (i.e. limited or unlimited)

What should be the risk protection mechanisms for a CCP for OTC transactions? Please identify your preferences from the following options?

- ☐ Collateral against OTC transaction
- ☐ Guarantee fund
- ☐ Membership requirements
- ☐ Insurance
- ☐ Credit line
- ☐ Equity Capital or reserves of CCP
- ☐ Access to credit facility from central bank and/or Treasury funds
- ☐ Others (Please specify) ……

If you think that CCP clearing is a requirement, which OTC products should be included in CCP clearing?

- ☐ CDS
- ☐ Forwards
- ☐ Swaps
- ☐ Plain vanilla OTC options
- ☐ Exotic options
- ☐ Other structured products (Please specify) ……..

Do you think that higher fee rates or new margin requirements mitigate the advantages of OTC clearing via a CCP?
Yes/No.

Collateralization **(The questions in this section are related with <u>OTC derivatives</u>)**

Is collateral used to mitigate counterparty credit risks on OTC derivatives transactions?
Yes/No.

Can you give information about the general market practice about collateralization (i.e. over/under collateralization) ?

Are there any regulations that compensate the risks related to OTC markets in your capital adequacy regulations?
Yes/No.

Are collateralised exposures subject to counterparty credit limits? For this purpose, how are limits set? How are exposures measured?

What are your suggestions about improving the collateral management of OTC transactions?

Do you agree that the clearing of the cross border OTC transactions should also be covered by a CCP?
Yes/No.

If yes, please specify your comments

Does it require links between CCP's?
Yes/No.

Financial Crisis and OTC Markets

During the recent global financial crisis, has there been a market failure or firm- specific financial failure in your country in respect of OTC transactions?

Describe any emergency measure taken by the Government to support the OTC market during the crisis.

Other

Have you ever faced with risk management problems in relation to OTC market instruments?
Yes/No.

If so, were these problems resulted in systematic problems in your domestic markets and what kind of solutions did the relevant regulatory body develop?

What is your opinion about standardizing the OTC contracts? Which aspects of the OTC contracts should be standardized?

And what do you think about the bespoke OTC products which offer important hedging and risk mitigation benefits for market?

Of all the discussions made by the financial bodies/organizations/forums during the crisis, which of the suggestions (for OTC market issues), do you find the most noteworthy for emerging markets?

What do you think about regulating the OTC markets? Please discuss in brief the positive and negative possible results of regulation for OTC markets.

If you are in favour of regulating the OTC markets, then what is your suggestion about the areas to be regulated and the scope of the regulation in these areas?

Do you think regulation cause negative externalities such as valuation and/or liquidity problems?

What about self regulation of OTC markets? Do you think it is feasible?

What are the incentives that could be provided to move OTC trades to regulated markets?

---------- End of Questions ----------
Thank you for contributing to this questionnaire. Your input is very important to us.
If you have any inquiry on this questionnaire or need further assistance, please contact Ms. Tuba Altun of the Capital Markets Board of Turkey by email taltun@spk.gov.tr or by phone on +90 312 292 88 81.
Kindly submit all completed questionnaires to Kiyoung Choi at the IOSCO General Secretariat by email at kiyoung@iosco.org and copy the same to Ms. Tuba Altun and Mr. Tuncay Yildiran at taltun@spk.gov.tr and tyildiran@spk.gov.tr.

Appendix 3 Overall OTC Market Statistics of Survey Respondents

	NOTIONAL AMOUNTS OUTSTANDING (In millions of USD)			GROSS MARKET VALUE (In millions of USD)		
	EXCHANGE	OTC	TOTAL	EXCHANGE	OTC	TOTAL
DEBT INSTRUMENTS						
Bonds	89.008,20	378.441,16	**467.449,36**	91.711,09	40.280,29	**92.241,38**
Government bonds	92.950,97	731.691,78	**824.642,75**	11.835,59	39.546,70	**12.338,29**
Municipal bonds	118,25	95,74	**213,99**	3.642,57	29,98	**3.661,55**
Private sector bonds	2.737,90	190.592,00	**193.329,90**	6.948,04	810,65	**7.063,69**
CDs	93,13	764.061,99	**764.155,12**	95,52	184,88	**280,40**
Commercial papers	143,64	12.575,50	**12.719,14**	141,08	2,51	**143,59**
Repos-Reverse repos	4.341,76	85,10	**4.426,86**	3.730,34	118,38	**3.848,72**
Government	3.800,65	-	**3.800,65**	3.360,74	368,50	**3.729,24**
Private	445,58	-	**445,58**	337,51	-	**337,51**
DERIVATIVES						
Foreign exchange contracts	-	-	**-**	-	-	**-**
Outright forwards and forex swaps	65.732,99	1.073.805,88	**1.139.538,87**	53.216,00	73.888,27	**1.889,27**
Currency swaps	76.445,76	381.510,84	**457.956,60**	-	116.712,82	**74,82**
Options	0,05	24.538,33	**24.538,38**	-	6.638,86	**558,86**
Interest rate contracts	-	-	**-**	-	-	**-**
FRAs	55.921,93	666.559,59	**722.481,52**	-	0,54	**0,54**
Swaps	24.380,56	317.742,87	**342.123,43**	-	219.728,69	**138,69**
Options	-	64.605,48	**64.605,48**	-	10,00	**-**
Equity-linked contracts	-	-	**-**	-	-	**-**
Forwards	929,00	1.444,93	**2.373,93**	-	-	**-**
Swaps	20.956,25	9.895,93	**30.852,18**	-	9.921,00	**-**
Options	13.579,52	57.350,57	**70.930,09**	242,00	2,00	**-**
Commodity contracts	-	-	**-**	-	-	**-**
Agricultural commodity (food)	-	33.086,27	**33.086,27**	-	675,00	**-**
Agricultural commodity (non-food)	23,80	3,00	**26,80**	3.389,00	3,00	**-**
Non-precious metals	-	867.450,00	**867.450,00**	2,20	1.140,00	**2,20**
Precious metals	7.018,14	64,22	**7.082,36**	-	15,00	**-**
Energy	174,96	901,00	**1.075,96**	-	901,00	**-**
Other	-	9.236,23	**9.236,23**	-	-	**-**

Credit default swaps	-	-	**-**	-	-	**-**
Single-name instruments	-	822,00	**822,00**	-	-	**-**
Multi-name instruments	-	-	**-**	-	-	**-**
Leveraged spot trading	-	-	**-**	-	-	**-**
Forex	-	-	**-**	-	-	**-**
Commodities	-	-	**-**	-	-	**-**
CFDs	0,02	-	**0,02**	-	-	**-**
Unallocated	-	157,00	**157,00**	-	-	**-**
STRUCTURED PRODUCTS						
ABS	-	74.317,17	**74.317,17**	-	1.226,10	**1.226,10**
MBS	-	100,00	**100,00**	-	-	**-**
CDO	-	1.500,00	**1.500,00**	-	-	**-**
CLN	-	-	**-**	-	-	**-**
Other (Please specify)	-	-	**-**	-	-	**-**
OTHER						
Foreign Exchange Futures	160,15	-	**160,15**	0,55	-	**0,55**
Sovereign Bonds (TES) Futures NON-OTC	-	-	**-**	63,85	-	**63,85**
Sovereign Bonds (TES) Forwards OTC	-	3.165,96	**3.165,96**	-	484,54	**484,54**
Futures on equity contracts	694,44	-	**694,44**	-	-	**-**

Appendix 4 Survey Results

AUTHORIZATION AND REGULATION

Is there any authorization and/or minimum entry requirement for OTC trading?

Total	Positive	Negative	Not Responded
25	10 Argentina, Brazil, Chinese Taipei, Colombia, DIFC, Korea, Macedonia, Malaysia, Panama, Romania	7 Chile, Czech Republic, India, Pakistan, Poland, South Africa, Turkey	8

RISK MANAGEMENT

Are there mandatory risk management standards for regulated (in respect of OTC transactions) firms?

Total	Positive	Negative	Not Responded
25	11 Brazil, Chinese Taipei, Colombia, Czech Republic, DIFC, Korea, Malaysia, Poland, Romania, South Africa, Turkey	4 Argentina, Chile, Pakistan, Panama,	10

Are those standards adequate?

Total	Positive	Negative	Not Responded
25	9 Colombia, Czech Republic, DIFC, Korea, Chinese Taipei, Malaysia, Poland, South Africa, Romania	2 Chile, Turkey	14

Is there any SRO setting supplementary self-regulations for intermediaries?

Total	Positive	Negative	Not Responded
25	6 Chile, Chinese Taipei, Colombia, India, Pakistan, South Africa	5 Czech Republic, Malaysia, Panama, Poland, Turkey	14

Are the risk management practices of the firms on OTC transactions periodically monitored or supervised?

Total	Positive	Negative	Not Responded
25	12 Brazil, Chile, Chinese Taipei, Colombia, Czech Republic, DIFC, Korea, Malaysia, Panama, , Romania, Turkey	2 Argentina, Pakistan, Poland	11

Is there any capital adequacy regulation for OTC transactions?

Total	Positive	Negative	Not Responded
25	11	3	11

	Argentina, Chile, Chinese Taipei, Czech Republic, DIFC, Korea, Malaysia, Poland, Romania, South Africa, Turkey	Colombia, India, Panama	

Do you think this regulation is in line with international standards?

Total	Positive	Negative	Not Responded
25	12 Argentina, Chile, Chinese Taipei, Colombia, Czech Republic, DIFC, Korea, Malaysia, Poland, Romania, South Africa, Turkey	1 Pakistan	12

Do the regulatory bodies regularly collect and monitor the data about OTC transactions?

Total	Positive	Negative	Not Responded
25	12 Argentina, Brazil, Chile, Colombia, Czech Republic, DIFC, India, Korea, Malaysia, Pakistan, South Africa, Panama, Turkey	2 Poland	11

Do you cooperate with international organizations in exchanging data about OTC transactions? (Technical assistance, research fund, etc)

Total	Positive	Negative	Not Responded
25	11 Argentina, Chile, Brazil, Colombia, Czech Republic, DIFC, Malaysia, Poland, South Africa, Romania, Turkey	1 Korea	13

Do they provide you any feedback or technical aid?

Total	Positive	Negative	Not Responded
25	3 Argentina, Colombia, DIFC	4 Chile, India, Malaysia, South Africa	18

REPORTING

Is there any regular reporting about OTC transactions? Please specify on a product basis with regard to Table of Question 2.

Total	Positive	Negative	Not Responded
25	15 Argentina, Brazil, Chile, Chinese Taipei, Colombia, Czech Republic, India, Korea, Macedonia, Malaysia, Pakistan, Romania, South Africa, Turkey	0	10

Do the reports include all transactions?

Total	Positive	Negative	Not Responded
25	12 Argentina, Brazil, Chile, Chinese Taipei, Colombia, Czech Republic, DIFC, India, Korea, Malaysia, Pakistan, South Africa	1 Turkey	12

Is it obligatory for the firms trading OTC instruments to comply with the international financial reporting standards (IFRS)?

Total	Positive	Negative	Not Responded
25	8 Brazil, Chile, DIFC, Macedonia, Malaysia, Pakistan, Romania, Turkey	8 Argentina, Chinese Taipei, Colombia, Czech Republic, India, Korea, Poland, South Africa	9

Is there a post-trade disclosure requirement other than reporting for any of the OTC market instruments in your jurisdiction?

Total	Positive	Negative	Not Responded
25	5 Brazil, Colombia, India, Korea, Malaysia, Romania	10 Argentina, Chile, Chinese Taipei, Czech Republic, DIFC, Macedonia, Pakistan, Poland, South Africa, Turkey	10

VALUATION STANDARDS/ACCOUNTING

Are the valuation standards the same for different types of financial instruments?

Total	Positive	Negative	Not Responded
25	8 Argentina, Brazil, Czech Republic, Chinese Taipei, Colombia, Korea, Macedonia, Pakistan,	4 Malaysia, Poland, South Africa, Turkey	13

Are you applying international accounting standards (IAS) for OTC transactions?

Total	Positive	Negative	Not Responded
25	12 Brazil, Chile, Chinese Taipei, Colombia, , Czech Republic, DIFC, Macedonia, Malaysia, Pakistan, Poland, Turkey	3 Argentina, Korea, South Africa	10

Are you applying any non-IAS domestic valuation standards in your jurisdiction?

Total	Positive	Negative	Not Responded
25	9 Brazil, Chile, Czech	6 Argentina, Chinese	10

	Republic, Colombia, Korea, Pakistan, Panama, Poland, Turkey	Taipei, DIFC, Macedonia, Malaysia, South Africa	

Have you ever encountered valuation problems in relation to OTC transactions?

Total	Positive	Negative	Not Responded
25	2 Colombia, Pakistan	11 Argentina, Brazil, Czech Republic, Chile, Czech Republic, DIFC, Korea, Macedonia, Malaysia, South Africa, Turkey	12

CLEARING AND SETTLEMENT

Do you favour the central counterparty clearing of OTC transactions?

Total	**Positive**	**Negative**	**Not Responded**
25	14 Argentina, Chinese Taipei, Brazil, Colombia, Czech Republic, DIFC, India, Kenya, Korea, Macedonia, Pakistan Poland, Romania	2 South Africa, Turkey	9

If there is a central counterparty in the process of clearing, is the clearing guaranteed by the central counterparty in the case of default?

Total	**Positive**	**Negative**	**Not Responded**
25	6 Argentina, Chile, DIFC, Korea, Romania, Turkey	5 Macedonia, South Africa, Poland, Brazil, Chinese Taipei	14

Is an electronic platform needed for trade comparison or matching for OTC derivatives?

Total	**Positive**	**Negative**	**Not Responded**
25	11 Argentina, Chile, Chinese Taipei, Brazil, Colombia, Czech Republic, Korea, Macedonia, Pakistan, Poland, Romania	4 DIFC, Kenya, Malaysia, Turkey	10

Do you think that higher fee rates or new margin requirements mitigate the advantages of OTC clearing via a CCP?

Total	**Positive**	**Negative**	**Not Responded**
25	6 Argentina, Czech Republic, Korea, Pakistan, Poland, , Turkey	5 Chile, Chinese Taipei, Colombia, Poland, Romania	14

COLLATERALIZATION

Is collateral used to mitigate counterparty credit risks on OTC derivatives transactions?

Total	Positive	Negative	Not Responded
25	10 Brazil, Chile, Chinese Taipei, Czech Republic, DIFC, Korea, Malaysia, Pakistan, Poland, South Africa, Turkey	3 Argentina, Colombia, Romania	12

Are there any regulations that compensate the risks related to OTC markets in your capital adequacy regulations?

Total	Positive	Negative	Not Responded
25	10 Chile, Chinese Taipei, Colombia, , Czech Republic, DIFC, Korea, Malaysia, Poland, Romania, South Africa, Turkey	3 Argentina, Pakistan,	12

Do you agree that the clearing of the cross border OTC transactions should also be covered by a CCP?

Total	Positive	Negative	Not Responded
25	6 Chinese Taipei, Czech Republic, DIFC, Kenya, South Africa, Turkey	6 Argentina, Brazil, Chile, Colombia, Macedonia, Pakistan	13

FINANCIAL CRISIS AND OTC MARKETS

During the recent global financial crisis, has there been a market failure or firm- specific financial failure in your country in respect of OTC transactions?

Total	Positive	Negative	Not Responded
25	3 Korea, Poland, South Africa	12 Argentina, Brazil, Chile, Chinese Taipei, Colombia, Czech Republic, DIFC, India, Malaysia, Pakistan, Turkey	10