Report to The Mission

For

The Study of Capital Markets in Colombia

The Derivatives Market in Colombia:

Market Development and Public Policy Issues

Prepared by: Mark J. Powers

30 Montgomery St. Jersey City N. J. 07302

Ph. 201-434-8181, Fax 201-434-7356
EXECUTIVE SUMMARY

The objective of this document is to:

- review and evaluate selected countries experience in their development of futures/options exchanges, and

- research and evaluate the Colombian Over-the-Counter market for derivative and other financial and capital market instruments

A. Conclusions from the survey:

The main conclusions from the surveys conducted of numerous derivatives exchanges throughout the world are:

1. Exchanges started in countries experiencing high or rising short term interest rates seem to reach levels of higher trading volume sooner than those countries with low, declining or relatively stable interest rates.

2. Successful exchanges were able to build a relatively large volume of transactions within two or three years of their opening. Exchanges that did not have daily volume exceeding 5000 contracts per day by the end of the third year were not experiencing any significant further growth by the fifth year.

3. Small size contracts, which allow lower margin requirements, and therefore, may be potentially affordable to a greater number of traders. seemed to be an important factor in attracting volume in at least two cases, the Bolsa de Mercadorias and Futuros of Brazil and the MEFF of Spain.
4. Most of the growth and developmental problems mentioned were self-created and dealt with: maintaining the credibility of the exchange, management inefficiencies, poor control of costs, and lack of independence of the staff from the exchange membership in enforcing rules.

5. Many exchange officials felt their initial capital requirements for clearinghouse membership were too low.

6. One of the most challenging problems faced by respondents dealt with establishing a base of knowledgeable, well trained people in government with an appropriate perspective regarding public policy issues, an appreciation of the role futures/options and derivatives markets play in developing a country's capital markets, and an awareness of the value and benefit of speculation as an integral part of successful free market pricing.

7. Nearly all respondents commented that they would reduce their spending on large conferences and on advertising to establish the name and presence of the exchange. Instead, they would focus their promotional budgets on structured seminars, workshops and meetings for small groups of participants, who are seriously interested in the market and where the emphasis would be on specific risk management and trading issues.

8. All respondents emphasized the difficulty of building liquidity and the need for market makers and “locals” (i.e. local professional traders as individual members).

Colombia’s strong economic growth, high inflation, growing trade and budget deficits, all resulting in greater economic risk and more highly leveraged corporate balance sheets, are likely to be a catalyst for the growth of derivatives trading in Colombia. Furthermore, the
Colombian business community wants and needs derivative financial instruments as risk management and asset management tools, especially for interest rate and foreign exchange hedging/trading services.

**B. Potential Impediments for Colombia:**

There are a number of potential impediments to the development of a successful future/options exchange in Colombia, including:

1. the lack of knowledge regarding derivatives trading among people, both in industry and in government,

2. the cultural bias against speculation. (For a Colombian exchange to be successful, it will need to attract and encourage the development of a class of professional speculators. Cultural bias, within government and in the society in general against professional, and amateur, speculation will need to be reduced.)

3. the lack of easy access by banks and commercial firms to complete and accurate data describing their assets and liabilities.

4. the lack of efficient systems and models in banks and in commercial firms for analyzing the risk associated with their balance sheet strategies, and policies and procedures for administering the risk management process.

5. the lack of well-capitalized dealer-type firms with the capability to “make markets” in the various future/options by providing continuous bids and offers at an established spread.

6. the potential resistance among broker/dealers to special segregation of customer funds and cash deposits of margins for facilitating daily settlements in cash.
C. **Recommendations regarding a futures/options exchange:**

Before a futures/options exchange is opened in Colombia, we recommend that:

1. a comprehensive training and educational program be undertaken jointly by the government and industry to develop local expertise in the various aspects of futures/options trading, exchange management and analyses of the complex pricing issues associated with futures/options and other derivative instrument trading.

2. a specific effort be made to establish well capitalized “locals” and “market-makers”. (We recommend establishing a firm jointly owned by a consortium of banks, brokers and other financial firms, to act as an initial market-maker, with a requirement that it provide continuous bids and offers at an established spread.)

3. any Colombian futures/options exchange recognize in its rules the “novation by substitution” process in order to protect all parties rights and duties, while allowing cancellation of contracts by offset at the Clearinghouse.

4. the interpretation of Colombian tax law be officially clarified regarding the application of the income tax, the stamp tax, value added tax, and the withholding requirement, and that Colombia adopt international standards for accounting for gains and losses from derivatives activity.

5. Colombian broker/dealers be required to segregate all customer funds from their own funds, and that the bankruptcy laws be reviewed and clarified regarding the treatment of such customer segregated funds, in the event of a bankruptcy.
6. Colombia develop registration classifications and operating guidelines for professional money managers in the futures and options markets.

7. The exchange rules require full disclosure by the broker to the customer and by the customer to the broker, of all relevant information about the transaction. The salespersons and their organization should be required to disclose to the client, before the transaction occurs, all important risks associated with the transaction, including credit risks undertaken by each party, and commissions, sales or administrative charges, plus the level of return the investment must achieve in order for the client to break-even on the investment. The customer should disclose to the sales persons that the customer has an understanding of what they are doing and that they can afford to do what they are doing.

8. The exchange rules establish processes and procedures requiring that member-to-member and member-to-customer disputes be settled through an Alternative Dispute Resolution (ADR) system, which could include mediation, conciliation and arbitration.

D. Recommendations regarding the Over-the-Counter Market (OTC):

We recommend that:

1. In the interest of fostering competition and encouraging development, Colombia permit an OTC market in derivatives by offering to license persons who hold themselves out to the public as brokers of OTC financial products or act for their own account as suppliers or dealers willing to make-a-market, purchase from, sell to or exchange with the public a derivative financial product.
2. commercial businesses and professionals dealing amongst themselves in derivatives should be exempt from such licensing, and a streamlined licensing and/or product approval process be implemented for those institutions, such as banks and insurance companies, who are already licensed as financial intermediaries for offering financial products to the public, and desire to offer OTC derivatives to the public. Without such exemptions, Colombia runs a real risk that its OTC regulatory system will become overly burdensome, counterproductive, and stifling to entrepreneurial activity.

3. the regulations not specifically list, limit or restrict the offering of new derivative products, except those based on products or services that are classified as dangerous or illegal.

4. Colombia classify all capital market instruments as either securities or derivatives and then establish a set of regulations governing the trading of derivatives, both on an exchange and in the OTC market. Special classification issues arise in the case of warrants and warrant-type instruments which contain the legal characteristics of both a security and a derivative contract. Securities should be regulated under the existing securities regulations and derivatives under new regulations.

5. Colombia establish a single regulatory authority governing all futures, options, other derivatives, and securities trading in Colombia, whether conducted on an exchange or in the OTC market. The most logical existing agency is the Superintendency of Securities.

6. to assure the legal standing of derivatives trading and the right to regulate it, both in the OTC market and on an exchange the authority of the Sala-General de la Superintendencia
de Valores (Sala-General), be utilized during an interim period while legislation is drafted and presented to the Congress.

7. the major regulatory responsibilities for protecting the public interests, whether done on an exchange or in the OTC market be:

- protecting the public from fraud and abusive sales practice;

- safeguarding the financial integrity of the market;

- protecting the market from abusive practices; and

- enforcing self-regulatory responsibility.

8. the Colombian government license Self-Regulatory Organizations (SROs) and authorize them to establish policies, procedures, rules and regulations governing their members conduct with respect to their dealings with the public. The government’s role, beyond the licensing, should be one of oversight, review and audit of the SRO to see that it establishes fair rules of conduct and enforces its rules fairly.

9. to protect against undue systemic risk, Colombia establish and enforce, or require the SROs to establish and enforce, minimum capital requirements for all licensees, based on business volume and riskiness of commitments made by the parties. We are not in a position to recommend a precise level for minimum capital, but judging from our knowledge of the Colombian market, experience in other countries and common sense, we believe 1000 million pesos is sufficiently high as a minimum level to assure a considerable degree of seriousness by entrants without being an undue barrier to entry.
10. licensees be required to report on a regular basis to their SRO, or the government, as to
the level of their capital.
THE DERIVATIVES MARKET IN COLOMBIA:

MARKET DEVELOPMENT & PUBLIC POLICY ISSUES

Table of Contents:

EXECUTIVE SUMMARY ____________________________________________ i
A. Conclusions from the survey: __________________________________ i
B. Potential Impediments for Colombia: __________________________ iii
C. Recommendations regarding a futures/options exchange: _________ iv
D. Recommendations regarding the Over-the-Counter Market (OTC): ______ v
I. Introduction & Objectives ______________________________________ 1
II. Review of New Exchanges ______________________________________ 3
   A. Bolsa De Mercadorias & Futuros (BM&F) Brazil _________________ 3
   B. MEFF Sociedad Rectora De Productos Financieros Derivados De Renta Fija, S.A.
      (MEFF Renta Fija) (RF) (Barcelona) Spain ____________________ 5
   C. MEFF Sociedad Rectora De Productos Financieros Derivados (MEFF Renta Variable)
      (RV) -- (Madrid) __________________________________________ 5
   D. Manila International Futures Exchange Philippines ____________ 7
   E. The South African Futures Exchange (SAFEX) South Africa ______ 8
   F. Kuala Lumpur Commodity Exchange (KLCE) Malaysia ___________ 10
   G. Kuala Lumpur Options And Financial Futures Exchange (KLOFFE) __ 10
   H. Malaysian Monetary Exchange (MME) ___________________________ 10
   I. Austrian Futures And Options Exchange (OTOB) Austria _________ 12
   J. Mercato Italiano Futures (MIF) (Comitato di Gestione MIF) Italy __ 14
   K. Italian Derivatives Market (IDEM) of the Italian Stock Exchange _____ 14
   L. FINEX (Division Of The New York Cotton Exchange) United States 16
   M. Summary and Conclusions ___________________________________ 17
III. A Survey of Exchanges _________________________________________ 20
    A. The Survey Issues: _________________________________________ 20
    B. Potential Impediments and Related Issues: ____________________ 30
IV. The OTC Capital Market in Colombia ____________________________ 44
    A. Introduction ______________________________________________ 44
    B. Product Overview __________________________________________ 47
    C. Regulating the OTC Market in Derivatives _____________________ 53
    D. The Authority to Regulate Derivatives Trading in Colombia ______ 61
V. ANNEX A _____________________________________________________ 72
    A. Product Description ________________________________________ 72
    B. Further Description and Discussion of the issues ______________ 74
THE DERIVATIVES MARKET IN COLOMBIA:

MARKET DEVELOPMENT & PUBLIC POLICY ISSUES

I. Introduction & Objectives

The Mission for the Study of the Capital Markets in Colombia is studying a variety of important issues relating to, among other things, the management of risk and the development of a futures/options market in Colombia. A Colombian Futures/Options Exchange, when and if established, is intended to aid the development of the Colombian financial system, investment environment, and capital markets. Such an exchange should enable commercial and trading interests to better manage their investment portfolios and the interest rate, currency and other financial risks associated with changes in domestic and international interest rates, and currency values. To aid in the completion of the overall Capital Markets Mission Report, Mark J. Powers has been retained to study issues related to the development of a futures and options market in Colombia and to study issues related to the trading of capital market derivative instruments in the Over-the-Counter (OTC) market.

The objectives of this consulting effort are:

A. To review and evaluate the experience of selected countries in their development and use of hedging instruments and futures/options exchanges.
B. To research, review and evaluate the Over-the-Counter market for Derivative and other financial and capital market instruments in Colombia, and to provide consulting on various regulatory and public policy issues relevant to the trading in the Colombian capital markets.

Specifically, this consulting effort is to:

1. Prepare from secondary sources a short descriptive summary of a number of futures/options markets recently developed in other countries.

2. Conduct, and report the results of, a survey of Chief Executive Officers of such recently developed futures/options exchanges and/or Chiefs of Regulatory Agencies in such countries to obtain their responses to the following question(s): "In hindsight, what should have been done differently in developing and building your futures/options business, exchange and regulatory structure in your country? and why?"

3. Study the Over-the-Counter Capital Market in Colombia focusing on, among other things:

   (a) The definition and descriptions of Colombian OTC capital market derivative products;

   (b) OTC Dealer licensing issues and dealer responsibility issues; and

   (c) Elements and issues of special public policy concern regarding the OTC market.

This document reports on the above consultancy effort and also includes ideas and points raised during a one week visit to Colombia, during which a series of intensive discussions were held with lawyers, government officials and market participants. The results of those discussions are not identified separately, but rather are included in the general text of this report.
II. Review of New Exchanges

Many countries have established special exchanges in recent years for the trading of derivatives, namely futures, options and sometimes swaps, on financial instruments and commodities. This section provides a descriptive overview of twelve of these exchanges located in eight countries. Most of the exchanges focused their product lines on financial instruments relating to short term interest rates, share indexes or currencies. A few have offered futures or options on agricultural products, but usually these were not the main reason for the initial development of the exchange, but rather were contracts obtained through absorption, acquisition or merger of another exchange that had such products. All of the countries had existing stock markets at the time they initiated the derivatives exchange, though some of those markets were more well developed than others.

A. Bolsa De Mercadorias & Futuros (BM&F)Brazil

Table A.1 presents a statistical overview and description of the Brazilian economy and the economic environment in which the exchange operated in recent years.

(Insert Table A.1 here)

1. Exchange Overview

The Bolsa de Mercadorias & Futuros was established in May 1991 through the merger of two commodity exchanges -- The Bolsa Mercantile & de Futuros (founded 1986) and -- The Bolsa de Mercadorias de Sao Paula (founded 1917). The BM&F, which uses the open outcry pit trading system, is the largest futures exchange in Latin America and ranked number five in the world based upon volume of contracts traded in 1994. Two BM&F contracts ranked in the top
ten traded contracts in the world by trading volume -- U.S. dollar contract (fifth) and interest rate contract (ninth). The BM&F also operates and clears a swaps market traded through an electronic trading system. In 1994, swaps trading accounted for almost 10 percent (9,959,280 contracts) of the Exchange’s trading volume. Annual trading volume are summarized on Table A.2

The Exchange has experienced rapid growth in volume and open interest. Daily trading volume averaged approximately 140,289 contracts in 1992; 208,854 contracts per day in 1993; 411,927 contracts per day in 1994; and 573,538 contracts per day during the first half of 1995. Open interest, as of June 30, 1995, was 3,185,903 contracts, an increase of more than 48 percent over June 1994 (2,145,562 contracts). Financial contracts account for over 99% of the Exchange’s trading volume. Financial products traded include futures and options on interest rates (the one-day and 30-day Interbank rates are the two most active interest rate contracts), futures and options on stock index contracts (Bovespa Index), and futures and options on the U.S. dollar. (Gold, cattle, and coffee futures are also traded.)

(Insert Table A.2 here)

2. **Clearing House:**

The clearing house is operated as a Department of the Exchange. There are currently 78 clearing members.

3. **Regulator:**

The stock index contract (Bovespa) is regulated by the Securities and Exchange Commission. All other contracts are regulated by the Central Bank.
B. MEFF Sociedad Rectora De Productos Financieros Derivados De
Renta Fija, S.A. (MEFF Renta Fija) (RF) (Barcelona) Spain

C. MEFF Sociedad Rectora De Productos Financieros Derivados (MEFF
Renta Variable) (RV) -- (Madrid)

Table C.3 presents a statistical overview and description of the Spanish economy and
the economic environment in which the exchanges operated in recent years.

(Insert Table C.3 here)

1. Exchange Overview

In December 1991, MEFF Sociedad Holding was established to form a common policy
and a common Board of Directors for MEFF RF (interest rate and currency derivatives
exchange) and MEFF RV (equities derivatives exchange). Trading is done through the MEFF-
Smart electronic trading system, although some traders have noted that, in regard to options,
considerable trading is still done by telephone due to the difficulty of executing complex options
strategies on the screen. The holding company has approximately 40 shareholders including
major commercial and savings banks as well as Spain’s four stock exchanges.

MEFF RF, which has approximately 63 members including domestic and foreign banks
and brokerage firms, trades futures on 3-year and 10-year government bonds and futures and
options on the Madrid Interbank Offered Rate (MIBOR). The 10-year notional bond futures
(listed 1992) is the MEFF RV’s most actively traded futures contract, accounting for
approximately 76% of the exchange’s 1994 futures trading volume. The 90-Day Mibor (listed
1990) is the second most active futures contract accounting for approximately 21.5% of 1994
futures trading volume. According to published estimates, over 40 percent of the 10-year bond and over 50 percent of the MIBOR business is done by foreign accounts. In 1991, the Exchange also listed two currency contracts (peseta/dollar and peseta/deutschemark), that traded 66,850 contracts in 1992, the contract’s first full year. The two currency futures, however, traded only 3,198 contracts in 1993 and have been delisted. (See Table C.4)

The MEFF RV trades futures and options on the IBEX 35 Stock Index. In regard to the IBEX contract, articles in financial publications have noted that traders, at first, criticized the small size of the contract and wanted the tick size increased. Later, however, they realized that the smaller size contract appealed to smaller investors and that this led to increased liquidity.

Both exchanges have experienced rapid growth in trading volumes. See Table C.4 & C.5. Published accounts have noted that the big increase in 1994 trading volume was due, in large part, to the increased market presence of funds managers reacting to a decline in the bond market. As of the end of June 1995 open interest on the MEFF-RF(FIJA) was 60,408 contracts which is down from its open interest of 122,416 contracts in June 1994. Open interest on the MEFF-RV (Variable) as of the end of June 1995 was 653,641 contracts which is also down from its June 1994 open interest of 873,677 contracts. See Table C.4 & C.5. January through June 1995 trading volume on the MEFF-RV ranks twelfth among the world’s exchanges. Published reports also have noted that the exchanges’ profitability has enabled exchange fees to be reduced and that competition has driven down brokerage commissions causing some brokers to realize that, in order to keep business, they must begin to market services, not just market access.

(Insert Table C.4 here)
2. **Clearing House:**

The clearing house is operated as a department of each exchange.

3. **Regulator:**

Both exchanges are regulated by the securities commission (Comision Nacional del Mercato de Valores--CNMV) under the Securities Market Act.

**D. Manila International Futures Exchange Philippines**

Table D.6 presents a statistical overview and description of the Philippine economy and the economic environment in which the exchange operated in recent years.

(Insert Table D.6 here)

1. **Exchange Overview**


Currencies are currently the only active financial futures contracts. In 1994, however, agricultural futures still accounted for over 87% of the Exchange's trading volume. The interest rate contract, which is currently inactive, traded only 5,472 contracts in 1993 and 7,672 in 1994.
Likewise, the U.S. dollar/Philippine peso contract, which is also inactive, traded only 3,634 contracts in 1993 and 2,336 contracts in 1994. The U.S. dollar/yen contract is the Exchange’s most actively traded financial futures contract accounting for approximately 53% (163,542 contracts) of 1994 trading volume followed by the U.S. dollar/pound contract, which accounted for approximately 3.1% (97,004 contracts) of exchange volume in 1994. While overall trading volume declined sharply in the first half of 1995, currency futures trading actually increased by almost 3%. Open interest is also down sharply, declining from 304,364 contracts at the end of June 1994 to 56,918 contracts at the end of June 1995. Annual futures trading volumes are summarized in Table D.7. The Exchange has not yet listed option contracts.

(Insert Table D.7 here)

2. Clearing House:

The clearing house (Manila International Futures Clearing House Inc.) operates as a separate entity that is 40 percent owned by the Exchange.

3. Regulator:

Both the exchange and the clearing house are regulated by the Securities and Exchange Commission.

E. The South African Futures Exchange (SAFEX) South Africa

Table E.8 presents a statistical overview and description of the South African economy and the economic environment in which the exchange operated in recent years.

(Insert Table E.8 here)
1. **Exchange Overview**

The South African Futures Exchange was formed in 1990, when the new exchange took over an Over-the-Counter market. The Exchange uses a telephone trading system with bids and offers displayed on Reuters screens, but is in the process of installing its internally developed electronic trading system. The Exchange trades two stock index futures and options contracts that accounted for over 85% of Exchange's 1994 trading volume; a gold index futures and options that accounted for over 14% of 1994 volume; and futures and options on Krugerrands, long bonds, and three-month bank bills. The long bond futures contracts (E168 contract listed in 1990 and R150 contract listed in 1994) traded only 6,903 contracts in 1993 and 10,245 contracts in 1994. Likewise, the three-month bank bill futures contract (listed in 1993) traded only 2,135 contracts in 1993 and 3,901 contracts in 1994. At the end of June 1995, Exchange combined futures and options open interest was 474,283 contracts, which represented a significant gain over June 1994 (348,674 contracts). Annual trading volumes are summarized in Table E.9. An interesting point relating to the Exchange's January through June 1995 trading volume is that, with the same contract listings, options volume slightly exceeded futures trading volume.

In regard to new products, the SAFEX planned to introduce futures and options on individual stocks by the end of 1994, but this has been delayed due to government concern over cross-market surveillance systems and procedures between SAFEX and the Johannesburg Stock Exchange, and concern over dilution of liquidity in the share market.

(Insert Table E.9 here)
2. **Clearing House:**

The clearing house for the Exchange, SAFEX Clearing Company Ltd. (SAFCOM), is owned by its 10 clearing members and primarily is organized as a service provider to the Exchange. The managing director of SAFCOM also is the chief executive of the Exchange.

3. **Regulator:**

The Exchange is regulated by the Registrar of Financial Markets under the Financial Markets Control Act of 1989, which applies to any futures or options exchange as well as the stock exchange.

**F. Kuala Lumpur Commodity Exchange (KLCE) Malaysia**

**G. Kuala Lumpur Options And Financial Futures Exchange (KLOFFE)**

**H. Malaysian Monetary Exchange (MME)**

Table H.10 presents a statistical overview and description of the Malaysian economy and the economic environment in which the exchange operated in recent years.

(Insert Table H.10 here)

1. **Exchange Overview — KLCE**

The Kuala Lumpur Commodity Exchange (KLCE) was established to trade palm oil futures in 1980 and, as the result of a delivery default, was reopened in late 1985 under new trading rules and procedures and a new clearing house. The Exchange uses the open outcry pit trading system and has approximately 85 member firms and 75 locals. The KLCE remains
principally a one product (palm oil) exchange and in 1994 had an average daily trading volume of 2,273 contracts. Annual trading volumes are shown in Table H.11. The Exchange has established a separate exchange to trade financial futures.

(Insert Table H.11 here)

2. Exchange Overview -- Kloffe and MME

The Kuala Lumpur Options and Financial Futures Exchange (KLOFFE) are a separate market established initially to trade stock index futures and options and, at a later date, to trade options on individual stocks. The Exchange has acquired an electronic trading system from the DTB Deutsche Terminborse. The Malaysian Monetary Exchange(MME), which is a wholly owned subsidiary of the Kuala Lumpur Commodity Exchange, has been established to trade interest rate and currency contracts (initially the Kuala Lumpur Interbank Offered Rate futures contract). The MME plans to use the open outcry pit trading system. Both exchanges plan to open for trading in late 1995 or early 1996.

3. Clearing Houses

The KLCE has a separate, but closely connected (25% ownership), clearing house (Malaysian Futures Clearing Corporation, MMF) with approximately 16 clearing members. KLOFFE and the MMF will use a common (jointly owned) clearing house (Malaysian Derivatives Clearing House).
4. Regulators:

Malaysia has a dual regulatory structure. The KLCE is regulated by the Commodities Trading Commission (CTC) which is responsible for agricultural futures trading under the Commodities Trading Act 1985. Kloff & MMF are regulated by the Securities Commission (SC) which, in addition to regulating securities trading, regulates financial futures and options trading under the Futures Industry Act 1993.

I. Austrian Futures And Options Exchange (OTOB) Austria

Table 1.12 presents a statistical overview and description of the Austrian economy and the economic environment in which the exchange operated in recent years.

(Insert Table 1.12 here)

II. Exchange Overview

The Austrian Futures and Options Exchange (OTOB), which uses an OM acquired screen-based trading system under appointment of the Vienna Stock Exchange, was established by five Austrian banks and started trading operations in October 1991. OTOB Clearing Bank Aktiengesellschaft operates both the trading and clearing activities of the Exchange (Osterreichische Termin und Optionenbörse--OTOB). There are 38 shareholders with the five founding banks remaining as the principal owners. The Exchange operates on a market maker system consisting of at least six market makers for each stock option and for the ATX futures and option contracts. There are currently ten clearing members, all of which are banks.

The Exchange trades options on seven stocks listed on the Vienna Stock Exchange, stock index futures and options (Austrian Traded Index), and futures on 10-year Austrian
Government Bonds. The Exchange has experienced rapid growth. In 1992, OTOB’s first full year of trading, the Exchange averaged approximately 972 contracts per day. This increased to a daily average of 3,562 contracts in 1993; 6,937 contracts in 1994; and 10,931 contracts per day for the first half of 1995. The volume, however, is primarily concentrated in the stock index contract and mainly in the option of that index. In 1994, for example, the ATX futures contract accounted for approximately 74% of the Exchange’s futures trading volume. The ATX option volume in 1994 (1,252,782 contracts) was over 3.5 times the ATX futures volume (348,291 contracts). As of the end of June 1995, the Exchange’s open interest was 33,665 futures contracts and 47,866 option contracts for a total open interest of 81,531 contracts which represents a decline from its June 1994 open interest of 91,258 contracts. Annual trading volumes are summarized in Table I.13.

In the new product area, the OTOB plans to list a short-term interest rate contract (VIBOR futures). The Exchange, however, has delayed introduction of this contract due to a belief that it is still too early to list such a contract. The OTOB also is working on the development of the Central European Clearing House and Exchange (CECE) designed to be a Vienna-based trading and clearing house for a number of European exchanges dealing in spot and forward transactions.

(Insert Table I.13 here)

2. **Regulator:**

The OTOB is regulated by the Central Bank (Kreditwesengesetz).
J. **Mercato Italiano Futures (MIF) (Comitato di Gestione MIF) Italy**

K. **Italian Derivatives Market (IDEM) of the Italian Stock Exchange**

Table K.14 presents a statistical overview and description of the Italian economy and the economic environment in which the exchange operated in recent years.

(Insert Table K.14 here)

L. **Exchange Overview -- MIF**

The Mercato Italiano Futures (MIF) started trading operations in September 1992. The Exchange currently trades futures contracts on 5-year and 10-year Italian Government Bonds (BTP) and, since May 1994, options on the 10-year BTP. The Exchange, which uses an electronic trading system, currently has a membership consisting of approximately 22 market makers, 114 dealers, 9 brokers, and 2 locals. In 1994, the 10-year BTP futures accounted for approximately 85% of the Exchange's futures trading volume. This percentage increased to 92% for the first half of 1995. Although still basically a one product exchange (10-year bond), the trading volume has been good. In 1993, the Exchange's first full year of operation, volume averaged approximately 17,657 contracts per day. Volume, however, declined slightly in 1994 (17,480 contracts per day) and has declined even further in the first half of 1995 (12,936 contracts per day from January through June 1995). Open interest at the end of June 1995 was 15,686 contracts which represents a sharp decline from its open interest of 39,169 contracts as of the end of June 1994. Annual trading volumes are summarized in Table K.15.

In regard to its most active contract (10-year bond) the Exchange also is in competition with a well established market on the London International Financial Futures Exchange (LIFFE).
where the volume of trading in 10-year Italian government bond futures experienced rapid growth from 1992 through 1994 (3,773,105 contracts in 1992; 6,344,233 contracts in 1993; 11,823,741 contracts in 1994; and 4,801,185 contracts for the first half of 1995). LIFFE also has an active Italian government bond option contract which traded 1,030,672 contracts in 1994).

(Insert Table K.15 here)

2. **Clearing House:**

The clearing house is independent from the exchange and services other markets including the Italian Derivatives Market of the Italian Stock Exchange. The clearing house is owned by approximately 21 primary dealers in the Italian government bond cash market, with no single shareholder permitted to own more than 10 percent of the stock. Clearing members currently include approximately 53 general clearing members and 84 individual clearing members.

3. **Regulator:**

Both the MIF and IDEM are regulated by the same Securities Commission (Commissione Nazionale per la Societa e la Borsa--CONSOB). The clearing house is under the regulatory oversight of the CONSOB and the Central Bank.

4. **Exchange Overview -- IDEM**

The Italian Stock Exchange established its Italian Derivatives Market with the listing of the MIB 30 stock index futures contract in November 1994. The Exchange plans to list options on the index, as well as on individual stocks, during 1995. The Exchange uses the OM electronic
trading system. Some initial technical problems have been reported, including an order confirmation problem, but reportedly these have been solved. The MIB 30 stock index contract has been trading an average of approximately 4,000 contracts per day during the first half of 1993 (Jan. through June volume of 493,312 contracts as of the end of June 1993 open interest of 6,324 contracts). This daily trading volume has greatly exceeded initial exchange estimates. Much of the trading volume, according to press accounts, comes from foreign traders, who the contract was designed to attract. One problem noted, regarding low initial domestic participation, is that the mutual funds are not experienced at using futures for risk management, especially equity futures, and currently use them for "directional" trading rather than for hedging purposes. The insurance companies also are considered to be very conservative in their trading approach and do not yet use futures. Some observers note, however, that equity futures have an advantage of being easier to understand than the bond futures, and therefore they expect local participation to gradually increase.

L. FINEX (Division Of The New York Cotton Exchange) United States

1. Exchange Overview

The FINEX Division of the New York Cotton Exchange was established in 1985 to trade financial futures and options. The FINEX was the first exchange to trade a currency index contract and to trade futures on the European Currency Unit (ECU). The U.S. Dollar Index remains the Exchange's principal futures contract accounting for approximately 78 percent (558,439 contracts) of its 1994 futures trading volume. See Table L.16. The FINEX also trades cash settled futures on 2-year and 5-year U.S. Treasury notes, and various currencies and
currency cross rate contracts. In June 1994 the FINEX opened a currency futures trading facility (FINEX Europe) in Dublin, Ireland. Trading of FINEX Europe is subject to U.S. regulation (Commodity Futures Trading Commission) with oversight by the Central Bank of Ireland.

(Insert Table L.16 here)

**M. Summary and Conclusions**

Although the macro-economic statistics presented above represent too few observations to allow definitive conclusions to be drawn, several observations can be made. First, the data suggest that exchanges started in countries experiencing high or rising short term interest rates seem to reach levels of higher volume of transactions sooner than those countries with low, declining or relatively stable interest rates. This seems logical as high or rising interest rates often reflect higher inflation, changing currency values, more highly leveraged corporate and bank balance sheets and in general greater risk. Thus, the demand for hedging is much higher in those countries than other countries where the opposite might be true. This suggests that Colombia’s current situation of high inflation, rapid economic growth, expanding budgetary deficits, growing foreign trade deficit and other economic uncertainties, set the stage for rapid growth in the demand and need for derivative financial instruments. Historically, the best time to implement an exchange, and new contracts, is when a country is going through a period of price volatility and rising inflation. (Note Brazil.) Opening an exchange just as deflation is starting or just as prices are stabilizing at relatively normal historical levels reduces the need and demand for hedging and trading services. If business people expect stable or declining prices, they are less interested in buying hedging or price protection services. During high inflation times, even if inflation rates are relatively stable at the high levels, traders and hedgers are attracted to futures
and options markets because they perceive that these markets allow them to buy or sell inflation sensitive assets, while leveraging their depreciating currency, and to do so in markets that are openly competitive and usually more liquid than other alternatives. The rest of the macro-economic data shows mixed relationships too inconclusive to draw meaningful conclusions. For example, in some cases the exchange grew rapidly while the GDP stagnated and in other cases the exact opposite was true. Similarly, with respect to the statistics on trade balances, the results were inconclusive.

Second, the data suggest that successful exchanges were able to build a relatively large volume of transactions within two or three years of their opening. Exchanges that did not have daily volume exceeding 5000 contracts per day by the end of the third year were not experiencing any significant further growth by the fifth year. They were, in essence, stagnating, suggesting that success is either early or not at all. Interestingly enough, this same pattern is reflected in the introduction of new futures contracts (as opposed to new exchanges) introduced at mature exchanges in the US and in Europe. If new futures/options products do not attract relatively strong demand within a few months after their introduction, the probabilities increase substantially that they never will attract enough to be liquid and viable markets.

Third, the small size contracts seemed to be an important factor in attracting volume in at least two cases, Brazil and MEFF. To some extent this volume is simply a reflection that to hedge the same amount you have to do twice as many contracts as one would with a contract twice the size. But, it is also a reflection that small size contracts allow lower margin requirements, and therefore, may be potentially affordable to a greater number of traders.
Fourth, as the markets developed and business grew the brokers found that they had to compete more on the quality and scope of services provided and less on the basis of market access.

The majority of the new exchanges are electronic, although the most successful of them, Brazil, is open outcry pit trading for most of its volume. Only two of the exchanges have their clearinghouse as an integral part or Department of the exchange. All the rest have the clearinghouse as a separate entity, usually with a substantial part of the ownership in the hands of local banks. Almost half of the exchanges were offering options trading as well as futures. Most of them had very low volume in options. Four of the exchanges started as commodity exchanges, or their organizational roots grew out of the trading of commodities. Most of the exchanges are regulated by the same entity that regulates the stock exchanges and securities trading in their country. One of them is regulated by their central bank.

In conclusion, Colombia's macro-economic situation coupled with the clear enthusiasm for futures/options products among corporate executives, managers of banks and financial firms, brokers, money managers and government officials, suggests a relatively favorable climate for the introduction into the Colombian capital markets of derivative financial products. The potential for Colombia's success in developing such an exchange is dependent not only upon the favorable economic factors described above, but also upon the execution of a sound strategic business plan for organizing an exchange. In this regard, the general information contained in this section is interesting, but the lessons learned by these new exchanges is even more valuable. The next section reports on some of the exchange implementation experiences these exchanges,
and other developing countries, have had, with special focus on the things they feel they did right and those they did incorrectly.

III. A Survey of Exchanges

A. The Survey Issues:

A survey was conducted, by fax, phone and in several cases face-to-face meetings, among 10 futures/options exchanges, all established within the last 15 years, to ascertain special advice they might give others who may be considering the establishment of such exchanges. The exchanges selected do not represent a random sample. Their answers all represent the "opinion of the respondents", which in all cases was a senior member of the exchange staff, though not necessarily the Chief Executive Officer. All respondents were assured of anonymity and "non-attribution" of their comments. This was a necessary condition in order to overcome the reluctance on the part of some of the respondents to discuss things. The respondents do not necessarily represent the same exchanges in the summaries shown in Section 1 of this Chapter, although there is considerable overlap.

All respondents were asked the open-ended question "In hindsight, what would you do differently if you were starting your exchange today?" A set of follow-up questions were asked in order to elicit further explanation and elaboration of the answers. In general, the responses are categorized into those relating to the exchange organization, marketing, and regulation.
1. **Exchange Organization - “What Would You Do Differently?”**

(a) **Streamline Decision Making**

The responses on exchange management were nearly all directed at management practices and organizational things. Nearly everyone said that the first thing they would change is the decision-making process for the management of their exchange. Even the very successful exchanges said that their decision-making processes needed streamlining. Too many people and organizations were involved in the organizing and in the start-up process. Thus, it took much longer and was much more expensive than it should have been, with no discernible improvement in the quality of decisions. A consensus seemed to be, that it would be best to put one person in charge, who has knowledge, experience and management ability, and have him work with an executive council of two or three others, leaving all final decisions up to them.

(b) **Get Legally Binding Commitments From Potential Members**

Nearly everyone said that they were promised a lot more support in the trading than they actually received. Although they admitted it would be difficult to do, several said that, if they were doing things over, they would actively seek legally binding commitments from people who promise to be “market-makers” or to participate in other ways. The prevailing view being that organizers of an exchange should not take seriously unwritten promises of support. And, that written promises of support are very useful for marketing the exchange and in building confidence among potential users that there will be counterparts with whom they can trade.
(c) Establish General Clearing Member Structure

Several of the exchanges who started out with a broadly based clearinghouse open to everyone who met the capital requirements, found that too many of the clearing house members were weak and undercapitalized. Further, they found it burdensome dealing with so many clearing members. Subsequently, they switched, or are switching, to a "general clearing member" status, which results in only a handful of firms being clearing members and all other firms clearing through those firms. One exchange said they were doing the opposite, they started with only a few banks as clearerers and found that none of them were aggressively treating clearing as business. Hence, the exchange was not growing, so they were seeking ways to open the clearing up directly to customers.

(d) Establish Higher Capital Requirements

Capital requirements are a never-ending debate at all exchanges. If capital requirements are too high they act as a barrier to business. If too low, they threaten the soundness of the structure. Several firms mentioned that they would establish much higher capital requirements for membership in the clearinghouse. Those exchanges had found that clearinghouses are only as strong as their weakest member. Setting capital requirements low in order to attract a larger number of members they felt was a mistake because it gave the impression that the exchange was made up of a lot of undercapitalized firms. The exchanges who felt they needed higher capital requirements were also the exchanges who felt they had allowed too many firms to be clearing members and were moving toward fewer but larger clearing members under a General Clearing Membership structure.
(e) **Focus Greater Efforts on Recruiting “Locals”**

All of the respondents said that they would place greater emphasis on getting more “locals” or “market-makers”. Even those who had sold many memberships to individuals and “locals” said they would put even greater emphasis on this aspect. This point is related to point (b) above in which respondents said they would try harder to obtain legally binding commitments from people who pledged to be market-makers. Those exchanges that seemed to be struggling had weak market-makers. Those who seemed to be starting to succeed have recently attracted locals. Those who seem very successful have a lot of locals.

2. **Marketing - “What Would You Do Differently?”**

(a) **Minimize Exchange Advertising**

Nearly everyone advised against spending anything more than a token amount of money on advertising the exchange. Some said they would eliminate it completely. Many said they had wasted money and resources on exchange advertising that should have been used for more directed promotion. That is, print advertising directed to an industry and extolling the virtues of the exchange should be forgone in favor of targeting specific groups with specific messages delivered through custom designed channels and media, such as “A Workshop for Insurance Executives on Using Interest Rate Swaps.” Others said the only advertising they would budget would be token amounts to announce to the international financial community the exchange formation and opening. The rest of the effort should be devoted to supporting their member firms’ advertising for building a customer base.
(b) **Eliminate or Reduce Large Seminar Gatherings as a Means of Developing Customer Interest in the Exchange.**

Nearly, everyone said that early in their formation process they sponsored several large seminars for purposes of promoting and educating people about the exchange. They all said they found the conferences very expensive and not particularly rewarding. One said large seminars have a place, but the timing of when to use them and for what purpose needs to be carefully considered. Although no one said so, it would seem that certain types of large public seminars could be useful and affordable, if their purpose and message is broader than the narrow one of promoting the exchange, especially if it includes issues related to public policy. Such seminars could be partially funded by governmental agencies and partially self-funded through nominal fees charged to attendees.

(c) **Focus on Small Group Meetings, Specific Needs, Issues, Problems & Solutions**

Nearly all respondents said the most effective and least expensive method of promotion and marketing was a very structured seminar/workshop format for small groups of participants, who are seriously interested in the market. The topics need to be focused on specific risk management problems facing that market segment. One Exchange said that they presented one such seminar per day every business day of the year for one year before they opened. The cost of these seminars was jointly funded by the exchange and nominal charges to the attendees.
(d) **Focus on Use of Systems Technology, Data & Analytics for Problem Solving, Hedging & Trading**

About half of the respondents said that a major problem they had not anticipated was the potential participants’ lack of data, analytical models and systems for evaluating their business situations so that they could use futures/options knowledgeably and appropriately for hedging. Those respondents said they would focus their efforts and, some said their money, on helping develop and distribute computer models so that firms would be able to do the required analyses and be in a position to monitor and control their futures/options activity. One exchange said that they would make that the focus of their marketing budget, if they were starting over today.


(a) **Toughen SRO Monitoring & Enforcement Efforts**

In some instances, the concept of an exchange being licensed by the government specifically to confer a public responsibility for its members’ conduct was a new regulatory idea. In all instances, the respondents said it was a welcomed approach, because it helped give credibility to their effort. However, a couple of the respondents felt that their management council and their membership did not understand or fully appreciate the significance of that responsibility. Consequently, the exchange staff had not been as independent, diligent or as capable as they should have been in rule enforcement. In hindsight, one said that had there been more independence of exchange administration from the membership in making audit, investigation and enforcement decisions, they would have avoided some very serious problems
that led to loss of confidence in their exchange, loss of credibility and political legal problems. From Colombia’s standpoint, the need for credible and fair rule enforcement can not be over-emphasized. Colombia will be a new entrant into the world of futures/options markets and the international financial community, ever mindful of the Singapore experience with the Barings problems in early 1995, will insist on evidence that the rules are appropriate, fair and enforced in an impartial manner. As stated by one respondent, “Ordinary citizens consider stock markets and stock brokers to be sharp operators. They think futures traders are even more suspect, that is, sharp operators to a higher degree. The exchange has an extra burden of demonstrating that its operations are fair and that it enforces the rules, even against its friends.”

(b) Put More Resources into Educating Government at all Levels

Without exception, respondents said that they did not find any active efforts by governments to discourage or interfere with their plans to have an exchange, but they did find enormous amounts of misunderstanding and lack of knowledge among government representatives. Further, they often made the mistake of educating the wrong people or only partially educating only part of the appropriate group. They learned that government officials need the support of other government officials, before they act. Educating only part of the government did not provide sufficient "cover" for the relevant officials to gather sufficient consensus to act decisively. They noted that, if doing it over, they would devote more of their budget to educating government officials, including organizing meetings with government officials in other countries where futures markets exist and are well regulated.
(c) **Streamline Reviews and Approvals of Rules and Rule Changes**

Many of the respondents had obtained government procedures that allowed them to submit certain rules and intended actions to the regulator and if the regulator did not reject or ask for further information or clarification within some short period of time, the requested rule, product or action was automatically allowed to become effective. Many respondents said they wished they had fought harder to have such procedures implemented over a broader range of issues and that they had obtained more explicit rules and procedures governing the issues submitted under such a process.

(d) **Other**

Regarding other elements of structure, most respondents felt that the basic structural relationship between their exchange and their clearinghouse was satisfactory, but those who were most happy with it were those who had the clearinghouse as a Division within the exchange, as opposed to it being a separately owned and controlled entity.

4. **Summary of Response and Relevance to Colombia**

The responses gathered in this survey contain some sound advice for Colombia’s business community and government officials, as they consider the possible start-up of a futures/options exchange. The main points may be summarized as follows:

(a) Most of the problems mentioned by the respondents were self-imposed and dealt mainly with management inefficiencies, poor control of costs, and lack of independence and diligence in enforcing rules.
(b) The most vexing problem for many of the respondents, and one of great importance to Colombia's efforts, seemed to be the development and maintenance of credibility of the exchange and the trading thereon. The establishment of credibility starts with the reputations of the people forming and becoming members of the exchange and its clearinghouse, the capital structure of the Clearinghouse, and the scope and fairness of the rules governing the exchange and the clearinghouse. Once the organization is operating, continued credibility is almost completely related to the impartial and complete enforcement of the rules to assure that the financial soundness of the structure, (especially minimum capital requirement and segregation of customer funds) is maintained, that contract terms and conditions are enforced, that the public is protected against sharp or crooked sales practices and that complaints against members and their employees are handled promptly and fairly. This last point seems so obvious as to be unnecessary but experience in every other country has shown that rule enforcement which is not independent and impartial damages the credibility of the institution and of all who are associated with it. To be credible any exchange established in Colombia needs to:

(1) Establish and maintain a continuing investigative effort to ensure compliance, by its members, with financial requirements, exchange rules and applicable Superintendency regulations;

(2) Provide effective futures/options market surveillance for indications of market congestion, price distortion or manipulation;

(3) Carry out effective surveillance of futures and options trading practices;
(4) Investigate alleged or apparent violations of the regulations, rules, resolutions, and notifications; and

(5) Develop procedures for taking prompt and effective follow-up disciplinary action for violations.

(c) The second most challenging problem faced by respondents dealt with establishing a base of knowledgeable, well trained people in government with an appropriate perspective on the public policy issues and an appreciation of the role futures/options and derivatives markets play in developing a country's capital markets. Colombian government officials will need substantial support and help in fully understanding the role and importance of an exchange and its products in developing Colombia's capital markets. Many Colombian government officials, especially in the Ministerio de Hacienda, Banco de Republica, Superintendency of Securities and the Superintendency of Banking have had innumerable meetings and discussions regarding the issues and problems surrounding the development of a Colombian futures and options exchange. Many of them have attended seminars in Colombia, and outside Colombia, regarding Derivatives. However, most of them, along with other senior government officials will need considerable further education and assistance in translating their knowledge into sound public policy guidelines.

(d) Bad timing and bad luck were mentioned, though not dwelt upon, by the respondents above. The timing for Colombia to introduce an exchange may be best now. Colombia's situation of strong economic growth, high inflation, growing trade and budget deficits, all resulting in greater economic risk and more highly leveraged balance sheets in both the
financial and industrial sectors are likely to be a catalyst for the growth of derivatives trading in Colombia.

B. Potential Impediments and Related Issues:

Although, much enthusiasm exists in Colombia for a futures/options exchange there are several specific issues that could be important impediments to its development.

1. Lack of Knowledge, Easily Accessible Data, Analytical Systems, Etc. (Need for Training and Systems)

Probably the single largest deficiency in Colombia is the lack of knowledge and understanding of futures and options, both as trading vehicles and as risk management tools. This is a serious impediment to the start and the growth of an Exchange. The extent of the seriousness is evident within the brokerage community, the banking community and the pension and mutual funds. Though efforts are being made, very few of them have staff who understand the pricing of these products, or methods of doing risk analysis. Very few have systems for evaluating balance sheet risk, or databases for easily conducting scenario analyses of their portfolios under different price change assumptions, etc. In fact, most of the financial institutions do not have computerized databases describing their existing holdings of assets and liabilities. Most of them are having difficulty meeting the mark-to-market requirements of Resolutions 096 and 200. The brokers have devoted only very small, and sometimes no, resources to marketing. The marketing of these products to institutions as either risk management tools or investment tools will take a very substantial educational effort on the part of the brokers. But, first the brokers have to get their own people up to adequate knowledge levels. Models need to be
developed, adopted and used. Company policies and procedures for managing the process are also needed.

It is highly probable that the single biggest expense, and the most important investment, for the development of a Colombian Financial Futures/Options Exchange is associated with training and developing a group of traders and a group of brokers capable of servicing them. Specialized training will also need to be provided to the hardware and software vendors and accounting and law firms.

2. The Problem of Building Liquidity

The single biggest impediment for people participating in a market is the fear that, once in the market they can not easily get out. It is the fear that they will be unable to exit a market that creates the reluctance to enter it in the first place. Markets are considered successful if participants and potential participants believe that the market is liquid enough that, as buyers, they will always find sellers and, as sellers, they will always find buyers near the last announced price. The challenge in listing any new product on a futures exchange is developing enough liquidity to engender this confidence. This will be an especially formidable challenge for a Colombian futures/options exchange.

Others who have faced these new market liquidity problems in other countries have usually relied upon persuasion, cajolery, threats, economic incentives and superb organizational efforts among potential traders to encourage a steady stream of bids and offers. Clearly such market developers have also had to rely on fortuitous price volatility to stoke the speculative fires and to increase the demand for hedge services. No single action or design element will assure
liquidity. Rather liquidity will emerge and develop as a result of the whole complex of circumstances surrounding the trading. Thus, the exchange organizers need to focus on establishing a complete or “whole” set of operating policies that in total favors the growth of liquidity. In the end though, price volatility and successful marketing programs will be the most important determinants of liquidity.

**Market Makers** -- It will likely be difficult at the start for a Colombian Exchange to establish sufficient order flow to maintain a narrow bid-offer spread and even minimal liquidity, unless the exchange takes some positive steps to assure market-maker activity of some sort.

We recommend that Colombia take a pro-active approach to building liquidity and consider an approach that combines some aspects of the Specialist system with the open public auction system normally used on futures exchanges in the US. Specifically, we recommend that the new exchange grant market-maker status to select firm(s). Such firm(s) would need to be well capitalized and may need certain incentives or economic advantages in return for a commitment that they would provide, at all times, a continuous bid and offer at an established spread and for a minimum quantity of contracts. Absent the emergence of sufficiently well capitalized existing firms to act as market-makers, we recommend that the Colombian financial institutions jointly create, capitalize and own (no single institution owning more than, say 10%) a well capitalized dealer-type firm whose specific purpose and responsibility would be to make markets in the various future/options by providing continuous bids and offers at an established spread.

This market making firm, would of course not preclude, but would indeed encourage each of the individual Colombian firms, shareholders and non-shareholders alike, to develop
their own competing market-making and trading firms and joint ventures with other firms. The purpose served by the consortium market-maker is to give everybody the confidence that they can get into and out of markets and to encourage others to act as market-makers. Since a consortium firm would be a for-profit institution, jointly owned, with no individual shareholder having more than a small ownership percentage, it would be sufficiently independent as to not give any single firm an advantage in dealing with it. Lastly, it will encourage the development of new dealing firms. Indeed, its success should be measured by how well it develops competitors.

Further, to enhance the potential growth of liquidity we recommend that the Exchange make a special effort to encourage the purchase of memberships by trading companies and individuals who desire to act as professional speculators and not as brokers.

3. **Novation and Contract Substitution Issue**

The normal fiduciary chain in the clearing, guarantee and settlement of futures contracts results in substitution of parties at various levels and in cancellation of obligations when opposite positions are taken in the same account. For example, two independent customers each employ separate brokers to negotiate and enter into a contract between the two customers. When the contract is negotiated, each broker passes it to their respective affiliated Clearing Member who, on behalf of the customer, registers the deal at the Clearinghouse. By virtue of Registration with the Clearing House, the original contract between the two customers is extinguished and two new contracts, which are binding on the Clearing House and the respective Clearing Members come into existence under the concept of substitution at the clearinghouse level. However, it remains important for the original customers to remain responsible for their commitments to their brokers. Substitution is necessary at the clearinghouse level in order to make the clearinghouse
the buyer to every seller and the seller to every buyer. An issue arises as to whether rules of the
exchange which allow the canceling (extinguishing) or substitution of existing contracts executed
by brokers as agents for customers and replacing them with contracts having brokers as principal
with the Clearing House, in any way contradicts contract law in Colombia or violates or negates
the rights, duties and responsibilities of the original customers.

From our discussions with private commercial lawyers, expert in Colombian law, the
answer to the question seems unequivocally NO. Under Colombian law, if the exchange rules
explicitly recognize the process, then novation or cancellation of a contract through substitution
maintains all of the original rights, duties, responsibilities and obligations of the original parties
to the contract, and the Clearing House has those same rights and is subject to all the liabilities of
the member who registered the contract on behalf of the customer. Thus, we recommend that the
exchange draft its rules to explicitly recognize the novation by substitution process described
above.

4. Taxes

There are several areas in which Colombian tax law, as applied to derivatives, will need
clarification. The issues are complex and many of the complexities are beyond the scope of this
report. However, some of the major issues are noted below and a summary is provided of
preliminary opinions rendered by Colombian lawyers, with whom the topics were discussed. The
statements below reflect these lawyers comments and opinions.

(a) Stamp tax - Simplistically stated, the stamp tax applies to any document which records,
modifies etc., any liability. The tax code contains a number of exemptions for this tax. It
seems highly likely that properly drafted exchange rules governing the trading and the means of trade documentation, along with properly drafted futures and options contracts, especially if they are cash settled contracts through a clearinghouse, would qualify for an exemption from the stamp tax. It is less likely that an OTC contract would qualify for an exemption.

(b) Income tax - The likelihood is that gains or losses from the trading of futures and options on an exchange and in the OTC market would be subject to income tax levies.

(c) Withholding income tax - It is not likely that gains from the trading of futures and options would be subject to a withholding requirement by the clearinghouse or broker. In the case of futures and options, which have novation through the clearinghouse, it will not be clear to the collecting and paying parties at each level who the ultimate beneficiaries will be, and without that information there should be no liability for withholding an amount for taxes. The OTC case is not likely to meet the same conditions, and therefore the brokers may be subject to the withholding requirement.

(d) VAT - It is likely that the VAT tax will be levied on some aspects of the transactions in both the exchange traded instruments and the OTC traded instruments, especially on bank transfers associated with the trading, unless the banking community is able to develop an innovative way of structuring their fees so as to qualify for an exemption.

5. **Accounting Issues - Hedging**

Futures and options activities by commercial firms are usually considered off-balance sheet items. Hedges are, by definition transactions designed to protect the value of some
underlying asset(s). Thus, at issue is the timing and conditions at which gains and losses are applied to re-valuing assets on the balance sheet. Consistency of treatment suggests derivative instruments used in bona fide hedging transactions should be accounted for, prior to termination, in a manner consistent with the item hedged. Under one approach the gains and losses from the derivative instrument are not recognized until the hedge is terminated. Upon termination, the gains and losses from the derivative instrument should then be applied to adjust the basis of the hedged item. This is referred to as "hedge accounting."

Alternatively, companies may mark-to-market derivative instruments with gains and losses recognized currently as they go. Generally, this alternative is used where it is impractical to allocate gains and losses to specific hedged assets or liabilities.

Generally, for a derivative instrument to qualify for hedge accounting, the item to be hedged must expose the company to a risk and the designated derivative transaction must reduce that exposure. Examples of exposure include the risk of a change in the value, yield, price, cash flow, or quantity of, or degree of exposure of assets, liabilities or future cash flows which the hedger has acquired or incurred, or anticipates acquiring or incurring. This means risk must be measured.

A company is generally required to set specific criteria (usually correlation or relative value changes) at the inception of the hedge establishing what standard will be considered "effective" in measuring the hedge and then apply those criteria and standards in the ongoing assessment based on actual hedge results, as measured by relative value changes in the two positions. When a hedge ceases to be effective, (i.e. becomes more of a speculation) companies generally are advised to account for a derivative instrument at market value and recognize
currently the gain or loss, to the extent it has not been offset by the changes in the value of the hedged item, i.e. net differential of the two positions.

To implement these hedge accounting practices, a company must maintain documentation and records relating to derivative instruments opened during the year, instruments outstanding at year end, and instruments terminated during the year. Colombia will find it convenient to adopt the international standards for derivatives accounting. However, it should be noted that these standards are changing. As experience builds many accounting firms are handling things more on a case-by-case basis and setting stricter standards. Furthermore, in the US the Securities and Exchange Commission is requiring publicly owned firms to value, report and disclose to investors their derivatives activity and the likely impact such activity is likely to have on their financial performance under various economic conditions.

6. The Cultural Acceptance of Speculation

Only a small segment of Colombia’s population participates in the trading of stocks. The brokerage community, as noted earlier, does not seem to expend great resources in marketing their services. Further, most interviewees, when asked about the attitude of the Colombian government and the public toward speculation opined that it would not be easily promoted as a legitimate activity, and that any brokerage firm that began actively promoting speculation would probably not enhance its reputation. For a Colombian exchange to be successful, it will need to attract and encourage the development of a class of professional speculators. This cultural bias against professional, and amateur, speculation will need to be reduced. The only effective remedy for this problem is the education of government officials at all levels, as to the value and benefit of speculation, providing them an understanding that
speculation goes with successful free market pricing, which is dependent upon participation of different groups with different opinions about prices.

Markets are made from differences of opinion and such opinions should not be limited to “hedgers only”. Exchanges that are limited to hedge interests only, usually fail or never reach the level of success to provide their maximum economic benefit, because usually institutions who want to hedge all want to position the same way in the market at the same time. Thus, commercial interests find they have not enough people to trade with in order to achieve an efficient market. Markets get the greatest diversity of opinion when they get the broadest participation in the market from different interests. It is irresponsible for governments to encourage the substantial investment needed to develop and operate an exchange, if the government was then planning on not allowing full participation in the market by informed speculators.

7. **Acceptance of Cash Margining and Cash Settlement**

In many other countries where futures/options exchanges have been started in recent years, there has often been a resistance within the trading community to the concept of cash margin deposits by the customer to the broker and by the broker to the clearinghouse, and daily mark-to-market settlement in cash. Hedgers, in particular, usually want extensions of credit in lieu of the posting of cash and the daily settlement of cash. Clearly bank credit facilities can be used to meet the settlements, but credit lines should not be extended by either the broker or the clearinghouse to support the trading. The Barings’ situation has made everyone aware of the importance of this area.
8. Protecting the Public from Fraud, Misappropriation and Abusive Sales Practices

Perhaps the area that the government has the greatest responsibility to the public interest is in giving the people the freedom to participate in the markets, if they so choose, but doing so only if they (the government and the people) can be assured that the participants will be protected from abusive sales practices, fraudulent or misleading advertising and misappropriation of their funds.

This can be accomplished only through the government imposing, or requiring the exchange or Self Regulatory Organization (SRO) to impose, rules requiring full disclosure of all relevant information about the transaction. The customer should be required to disclose to the sales persons that the customer has an understanding of what they are doing and that they can afford to do what they are doing. The salespersons and their organization should be required to disclose all important risks associated with the transaction, including any associated with credit risks undertaken by each party, and commissions, sales or administrative charges, plus the level of return the instrument must achieve in order for the client to break-even on the investment.

With respect to the issues of misappropriation of clients funds, all customer moneys should be segregated from the broker/dealers funds. They should at no time be commingled, (except minor residual interest as described below). At present, in the Colombian stock market, customer moneys are first deposited in the broker’s account. The broker then pays for the shares purchased by the client. In the event of a bankruptcy, the client funds are unprotected and are available to pay the general creditors of the broker. We recommend such practice not to be
allowed for any futures/options exchange and derivatives trading in the OTC established in Colombia.

We recommend that safeguards be set up for the handling of customer funds and that limitations be established on the extension of credit to customers for trading purposes. The implications of this are as follows:

(a) Segregation of customer funds from the funds of the broker/dealer would prohibit a broker/dealer from using customer funds for its own purposes or from using the funds of one customer to support the trading in another customer’s account.

(b) The segregated funds provisions will require brokers, exchanges, and clearinghouses to separately clear, account for, and settle proprietary (broker’s own accounts) and customer accounts. This will require separate broker trade registers and accounting ledgers and journals. Basically, the broker/dealers, will need to maintain separate accounting and recordkeeping sub systems for customer and proprietary accounts.

(c) In practice brokers will obtain a small residual interest in the customer segregated funds account. In order to maintain sufficient customer funds in segregation, thus avoiding being under-segregated, brokers normally deposit some of their own funds into the segregated funds account. These deposits, known as the broker’s residual interest in segregated funds, are necessary during the period between a customer’s receipt of a margin call and the time the broker receives the funds from the customer. Since funds of one customer cannot be used to satisfy the segregated funds requirement of another customer, under-margined accounts must be satisfied, for segregation purposes, by the broker’s own funds, after a specified limited time period
for payment of margin. The broker cannot withdraw these residual funds, if such withdrawal would cause the broker's customer segregated funds account to fall below the required levels. Colombian law and regulations will need to provide for this residual interest in customer segregated funds.

(d) The segregation of funds process will require review of the banking regulations to identify areas needing clarification regarding brokers' segregated funds bank accounts. For example, brokers will need separate accounts for customer segregated funds, the brokers' proprietary trading, and general business operations. The banks, basically will need to provide trust-fund-type treatment and recognition to customer segregated accounts.

(e) Bankruptcy laws will need to be reviewed for issues relating to treatment of customer funds in the event of bankruptcy of a broker. To the extent possible, segregated funds should be treated as identifiable assets belonging to customers and not subject to distribution to other creditors of a bankrupt broker.

9. **Professional Money Management in Futures & Options**

Most people who trade futures and options and manage their own account lose money. This is especially true of speculators and of first time traders. As this knowledge has become more widespread, it has led to the creation of licensed professional money managers who manage other people's money through "funds" or "pools." - groups of individual traders owning an interest in an account, or group of accounts, all traded identically by a professional trader.
These pools have become very popular in other countries because they effectively securitize the futures trading activity of many individual traders and because:

(a) Professional money managers have a trading expertise, individuals often lack.

(b) Individual traders often have too little capital to trade successfully and do not know how to manage leverage properly.

(c) Individual traders lack the time needed to do adequate research and monitor the market. They are too busy working and making a living.

(d) Individual traders have little bargaining power in lowering commissions. Professional managers with large chunks of money can get the most favorable brokerage rates and fees.

(e) Individual accounts have unlimited liability and are liable for all losses in an account even if the losses exceed the amount of money in the account. Limited partners or investors in funds are liable only for the amount they invest in the partnership or fund. They have limited liability.

(f) Professional managers usually have more timely access to information, research results and the market execution processes than do individuals.

We recommend that Colombia recognize these trends and explicitly develop registration classifications and operating guidelines for professional money managers in the futures and options markets. This activity will be a potential source of liquidity to help a futures exchange get started. It will complement the growing activity for asset management in the securities area. It will provide better protection for the general public who may be susceptible to
questionable sales pitches designed to lure them into overly aggressive speculation. It will attract foreign professional futures trading activity.

10. **Dispute Settlement Procedures and Enforcement Powers of SROs as a by-pass to the Civil Court System**

Discussions with Colombian lawyers revealed that, if exchange or SRO rules are established and approved by the government regulatory body, the exchange or the SRO could establish their own processes and procedures requiring member-to-member and member-to-customer disputes be settled through an exchange established Alternative Dispute Resolution (ADR) system, which could include mediation, conciliation and arbitration. We recommend decisions emanating from such ADRs be accepted in law as final. The rules of the process could be determined by the exchange, but would be limited in that they could not abrogate to themselves any authority (e.g. as incarceration) which by law can reside only with sitting judges. Colombia would probably want exchange and SRO decisions under such ADR rules to be subject to final review by the regulator, upon receipt of a petition from a party to the dispute.

11. **Clarity, Certainty and Consistency of Regulation**

A further element that is associated with the potential for achieving the most efficient and effective OTC capital market system is that the government, SROs and professional organizations (lawyers, accountants, etc.) take responsibility for assuring that there is clarity, certainty and consistency to all the legal aspects of participation in the OTC Market. The regulatory requirements that must be met, and the accounting status and the tax status associated with the purchase or sale of assets and liabilities through the OTC Market, all need to be made
clear as early as possible. Uncertainty about the licensing requirements, rules of operation, tax status, etc., will act as great barriers to the development of the capital markets in Colombia.

IV. The OTC Capital Market in Colombia

A. Introduction

This part of the report focuses on Objective 2 of the terms of reference. Section B below focuses on descriptions of derivatives financial products, i.e. the derivative instruments created, and marketed through the OTC capital market, with periodic reference to potential futures and options markets. Section C deals with establishing a regulatory environment governing the OTC market. Colombian capital market products are largely organized, issued and transferred through regulated entities like licensed brokers, members of the Stock Exchanges, Banks, Insurance Companies, etc. For purposes of this study, we call the market conducted on the regulated stock exchanges the “listed market”. Colombia also has a growing Over-the-Counter (OTC) market, which encompasses those financial instruments that are not issued, listed or traded subject to the rules and regulations of a licensed exchange. The OTC market is the focus of this section of the report, although some of the points and issues have relevance to and are directed at the Colombian capital markets in general, and in some cases, the potential development of a Colombian futures/options market.

The basic objectives of Colombia’s small but growing Capital Market are:

- The efficient and effective mobilization of domestic savings;
- The efficient and effective allocation of those savings to their highest and best uses, both public and private; and
• The protection of the public interest.

1. Preserving and Fostering Capital Market Competition Through the OTC

One of the questions Colombia faces with respect to its derivatives market in capital products is whether to restrict the trading or offering to the public of derivative instruments to a licensed futures/options exchange and its member brokers, or whether to broaden the approach and also allow an OTC market for such products. Restricting the public trading to the exchange and its licensed brokers essentially grants them some monopoly power. Allowing the OTC market also to compete for the business, but under a similar set of basic rules and responsibilities to protect the public from harm, would be a more competitive approach and in the long run will provide greater benefit to the economy.

Competition generates creativity and innovation. In the capital markets almost all innovation is in the form of new products, designed to more efficiently and effectively mobilize savings and allocate resources among investments. (The capital markets industry may adopt or adapt technology created elsewhere for improving the efficiency of gathering, displaying, analyzing or dispersing information, but that is not innovation of the kind we are concerned with here). The new products may be less risky, more accessible to a wider group of people or more easily transferred among people. Or, the new products may be all of these things. Historically, many of the most creative and innovative new financial products have emerged from the OTC market rather than from the traditional exchange market. Typically the products have been initiated in the OTC market and then, if the product's popularity grew, it was absorbed, often in a revised form, into the exchange or listed market. The competition between the OTC market and
the exchange market thus is usually a healthy thing. It results in a more vibrant and efficient economy than might otherwise be the case, because it hastens the development of the country’s capital markets, and it acts as a self-renewing device.

It is recommended that Colombia permit an OTC market in derivatives by offering to license, provided they meet certain standards of minimum capital, business conduct etc., persons (firms) who hold themselves out to the public as brokers of OTC financial products offered to the public and those acting for their own account as suppliers or dealers willing to make-a-market, purchase from, sell to or exchange with the public a derivative financial product.

Basically, the public interest is embodied in the protection of individual investors against fraud, misappropriation of funds and the assurance that the structure of the financial system is sound, so that failure of one part or one firm within the structure does not cause further failures in other parts of the financial system.

The most important public interest concerns associated with the Colombian OTC market are:

(a) Fear that savers may be caused to make unsuitable investments through unfairly designed products, the dissemination of false or misleading information, information which is withheld, and through unethical sales tactics.

(b) Concern for the integrity of the financial system (i.e. concern that unsafe or unsound business practices may flourish and through, known or unknown, linkages cause widespread failures within the financial system.)

(c) Concern regarding the operational efficiency and effectiveness of the OTC market. The strength and vitality of the economic environment in Colombia is directly related to the
efficiency and effectiveness with which the savings and investment process operates in the country. If it is inefficient it will be high cost and result in slower economic growth and less employment than might otherwise be the case.

In short, the OTC issuance and trading process in Colombia needs to be not only safe, fair and equitable, but also efficient in facilitating and encouraging savers to employ their savings in various public and private investments.

B. Product Overview

1. Derivative Products Defined

There are two basic building blocks that form the core of derivative financial products. They are forward contracts and options. Swaps are sometimes considered another building block, but a swap is really the equivalent of a series of forward contracts.

- Forward Contracts are private contracts describing a property right(s) to be exchanged at an agreed price at a date in the future.

- An Option is a stipulated privilege to buy or sell a stated property right at a given price within a specified time period. The buyer of a put option obtains the right, but not the obligation, to sell the property right. The buyer of a call option obtains the right, but not the obligation, to buy the property right.

Annex A contains descriptions of a number of other derivative products traded in other countries and, in the long run likely to emerge in Colombia. Nearly all of them are various combinations, forms or permutations of forwards and options.
Based on discussions held with executives of Colombian businesses who were interviewed as part of this project and on information and knowledge gained from recent research we conducted on the Colombian capital markets, we draw the following conclusions:

(a) At present almost no derivative financial products are being offered on a continuous or even regular basis in Colombia, except the carrousels which are interest rate forward-forward contracts. Forward contracts in currency are offered by the banks, but in most countries these are not considered derivatives, unless they are traded on an organized futures exchange, and then they are called currency futures contracts. Options on currency forwards are considered derivatives and are also offered by a few Colombian banks with most doing only a few deals per week. Neither Colombian Forward Rate Agreements (FRAs) on short nor long term interest rates nor options on securities are being offered, though a repurchase agreement market does exist in certain interest rate instruments. Warrants are not being offered. A few firms had done some interest rate swaps and a commodity swap. Both of these had been arranged by a foreign bank. In short, there is no material business being done in derivative financial products, except in the carrousels, which are a significant early stage futures type market.

(b) The carrousel market has broad participation from brokers, banks, and the managed funds.

(c) A carrousel trade normally, but not always, originates on the Bolsa, which processes at least two of the segments as exchange transactions. Although a carrousel may consist of many segments, most carrousels now consist of three segments sometimes referred to as the head, body, and tail. All segments of a carrousel trade are arranged by the broker prior
to making the transactions. For example, the broker might start with a 360 day certificate of deposit with a 36 percent interest rate and repackage the CD into a series of two or three transactions. For example, a 30 day CD paying 30 percent; a 60 day CD paying 32 percent; a 90 day CD paying 34 percent; and a 180 day “tail” segment paying above the 36 percent rate. The instruments involved include certificates of deposit and government and corporate bonds with CDs being the most common. While the size of the trades varies, the two most common amounts are for 100 million and 200 million pesos. During 1994 the total face value of carousel trades completed on the Bolsa de Bogota was estimated at approximately 286 billion pesos.

(d) Banks and other financial firms use the carousel as a hedging device, especially to establish short positions in short-term interest rates, thereby getting some protection against rising interest rates. Sometimes banks use the carousel market to convert longer term (3 to 5 years) paper into short term, such as 90 day segments. They may do this in order to lower reserve requirements.

(e) The carousel market provides a convenient, though risky, means for people to speculate on the shape of the yield curve. In essence, the issuer, who agrees to sell the paper to another investor at the end of the first time period, is betting that, at the end of a given period of time, he will have higher returns from continually rolling forward a short term position than he will achieve if he simply invests passively in an instrument for the same time period. He expects short term rates to rise faster than longer term rates, during the period he employs this strategy. This strategy becomes especially risky when rates stabilize or decline.
Although the carousel market is quite active, it is risky and would likely be supplanted, at least partially, by an interest rate futures/options market, if one were available, because in contrast to futures, a carousel trade:

(1) is difficult and time consuming to arrange (all segments must be arranged at one time);

(2) once executed, cannot be canceled. The chain must remain unbroken to maturity;

(3) involves counterparty risk and added capital risk to the broker; and,

(4) lacks the price transparency of a futures market.

2. The Demand and Interest in Colombia for Derivative Products

The Colombian business community wants and needs derivative financial instruments for use as risk management and asset management tools. Interviews clearly established that the financial community and industrial sector both believe that, within Colombia, there is significant demand for interest rate and foreign exchange hedging services. Banks, commercial firms, insurance companies, and asset managers are seriously looking for liquid market opportunities to buy or sell forwards, futures and options (and to use them to create swaps) on fixed income instruments or indexes, and on foreign exchange (US dollar/ Colombian peso) rates. Interviews and published data on the balance sheets of the major Colombian banks suggests that very few of the banks have fixed rate funding sources that go beyond a few months. By far the majority of the liability funding is based on rates that change every 90 days or less. Most of the assets are loans that also re-price on a floating rate basis. In essence the banks have a very short “gap” in the timing at which their assets re-price and when their liabilities re-price. This gap is commonly
referred to as a funding mismatch. The larger this gap, the greater the mismatch, and the greater the risk associated with the bank’s net interest spread and its return on capital. The existence of a futures contract on short term interest rates would allow these banks to more effectively and immediately adjust the duration of their assets or liabilities and to control and stabilize the growth rate of their income streams. Furthermore, such a market would make it much easier for banks and other institutions governed by Resolution 200 and 096 to value their assets and liabilities. Colombian firms governed by Resolution 200 and 096 will need an ability to do sophisticated and complex analyses of their balance sheet exposures to changing interest rates. Any Colombian financial institution that gets involved in hedging must also be able to do even more complex analyses of their balance sheets and their risk.

Discussions with the bank executives and with people at the Ministerio de Hacienda and the Central Bank of Colombia revealed that there is very little capability to undertake such balance sheet analyses at present. Although it is likely that the banking community will be a potentially very big user and beneficiary of a futures/options market in short term interest rates, they will need to increase substantially their readiness to participate on an exchange traded futures market.

If an extensive educational and training effort coupled with an Asset/Liability modeling activity is undertaken, in one to two years time most of the banks should be capable of doing the requisite analysis and of developing the appropriate strategies for implementing soundly based, but limited, risk management programs. The firms lack knowledgeable staff, easy access to complete and necessary data in an acceptable form describing their assets and liabilities, efficient
systems and models for analyzing their risk and policies and procedures for managing the above processing and hedging.

3. **Product Priorities**

Given the discussion above, the most logical initial instruments for Colombia would be forwards and options in a short term interest rate index and in dollar/peso exchange rates. Active markets in these two products will allow the emergence of the rich variety of other derivative products, especially swaps, that are so well developed and widely used in other countries. It will also allow the Colombian capital markets to develop a longer time horizon, which will ultimately lead to an improved Colombian bond and fixed income product market. The Colombian bond market is relatively underdeveloped. There is no active or continuous secondary market in corporate debt due in part to a combination of the lack of supply, the lack of well capitalized dealers, and the lack of a uniform clearing and settlement procedure for secondary market dealings. The existence of a benchmark pricing mechanism on a 3 to 5 year instrument would naturally extend the Colombian yield curve. Arbitrage across such instruments would tighten the spreads among all instruments and provide a truer picture of the Colombian yield curve, enabling more accurate pricing of instruments as required under resolutions 96 and 200. Nevertheless, an active market in Colombian fixed income derivatives instruments is not likely to be available until the cash market in Colombian bonds is better developed.

Although stock index futures and options on individual stocks are not the first priority among brokers, fund managers and business executives, it is likely that individual investors, and fund managers will be very interested in participating in such markets, once acceptable products are developed and the proper structures are in place. Interviews and discussions with a broad
array of representatives of the Colombian business, government and financial communities revealed diverse opinions on the demand and potential interest in trading futures and options on equity issues. When individual business people were asked, not in a business capacity but in their personal investment capacity, what product would be of greatest interest to them for personal trading, they frequently said options on individual stocks or on an index of stocks.

With regard to the equity derivatives market, many emerging market countries, especially in Asia, that do not have futures or options markets have found the warrant market as the first and easiest derivative market to develop, because it is quickly and easily understood by participants as being closely related to their securities markets without many of the complexities of the futures and options on futures markets. From a regulatory standpoint such a market often poses the toughest questions because warrants have many of the characteristics of a security (e.g. they involve an issuance of a certain supply) and they also display the characteristics of a contract.

For the Colombian derivatives market to develop, the government needs to provide a clear and concise regulatory structure governing the offering and trading of derivative products. The next section addresses regulatory structure issues.

C. Regulating the OTC Market in Derivatives

An effective regulatory program for the OTC capital market derivative instruments generally should consist of three components:

- Enabling legislation establishing the responsibility, scope and authority for regulating;
- The regulations and notices providing specific regulatory requirements and guidelines; and,

- Self-Regulatory Organization rules and procedures governing the activities, financial requirements and qualifications of the SROs members.

This section discusses some of the important issues concerning the regulation of the OTC markets in Colombia, and sets forth a recommended regulatory approach for the OTC market in capital markets derivatives instruments. It starts by establishing some criteria for defining the limits of the regulatory structure and scope. Subsequently it considers the legislative issues and finally presents an OTC structure and set of regulatory tools.

1. **An OTC Regulatory Scheme for Colombia**

   A general perception (garnered from a limited sample) in the business community, both inside Colombia and outside, is that the general regulatory environment in Colombia is at once complex, confusing, uncertain, intermittently serious, burdensome and a barrier to long term growth. In short, they feel that many regulations would not pass a cost-benefit analysis. Excessive or unnecessary regulations can be costly not only to business but to the economy, if they slow economic growth. Most business people can survive and prosper with normal business uncertainty. However, they have great difficulty, and tend to withdraw from markets, where there is not clarity, certainty and consistency associated with the laws and regulations under which they must operate and the accounting rules and tax status that is associated with the results of the activity. Thus, the focus here is to define the areas in the OTC market that are of normal concern to public policy, consistent with the objectives of the Colombian capital market and
taking account of the potential effects of over-regulation. Regulation will be more likely to achieve its intended effects and to pass a cost/benefit test, if it is directed specifically at the areas of greatest concern. Thus, one issue is defining the limits of OTC capital markets regulation.

2. Defining the Limits

(a) Public Market vs. Private Market

One point of departure for defining limits is in distinguishing between the public market and the commercial/professional market.

A strong case can be made for focusing the regulatory attention primarily on those who hold themselves out to the public as brokers of OTC financial products offered to the public and those acting for their own account as suppliers or dealers willing to make-a-market, purchase from, sell to or exchange with the public a financial product(s), derivative or otherwise.

Commercial businesses, dealers in capital markets instruments and those firms dealing exclusively with the professional and very high-net-worth-individual market should be free of special regulation in their dealings with each other. Those participants possess, have access to or an ability to obtain, sufficient knowledge, advice and analyses to make informed decisions and to take adequate action to protect themselves and pursue remedies to satisfy their claims, in the instance disputes arise.

The general public, on the other hand, usually participates in the capital market relatively infrequently and in small amounts. They are in a decidedly different position in their understanding of the products offered for sale, their access to information, their negotiating strength and in their ability to pursue remedies to problems.
It is recommended that Colombia require licensing of all entities who deal with or hold themselves out to do business with the public in the OTC capital markets, and that it exempt from such licensing commercial businesses, dealers in capital markets instruments and others, dealing exclusively with the professional and very high-net-worth-individual market. Without this exemption, Colombia runs a real risk that its OTC regulatory system will become overly burdensome, counterproductive, and stifling to entrepreneurial activity. This does not mean that the commercial and professional OTC market would not be regulated. Many of those participants would be registered and regulated under some other aspect of their business as brokers, exchange members, banks, insurance companies etc. In addition, all would still be subject to all the Codes of Commercial Conduct and to laws covering fraud, cheating and similar acts. We further recommend that consideration be given to additional exemptions, or at the least a streamlined licensing and/or product approval process be implemented for those institutions, such as banks and insurance companies, who are already licensed as financial intermediaries for offering financial products to the public, and desire to offer OTC derivatives to the public.

(b) Defining the Limits by Product Licensing

An argument could be made that at the outset the government should limit the underlying products that can serve as the basis for derivative OTC products offered to the public, allowing only those products that are most likely to satisfy the greatest hedging and commercial needs in Colombia. This would more clearly define things. It would give clear control to the government in allowing only those products that it felt the domestic market was prepared and ready for. It would result in less chance that poorly designed products would be offered. It would protect the public, and the politicians, from the potential for financial scandal due to overly
aggressive public speculation in the OTC market. It would also result in slower growth and
development of the Colombian capital markets.

A stronger argument can be made that, in the interest of fostering competition and
hastening the development of the overall capital market in Colombia, the government should not
limit the development of new products, except to forbid the trading of products that are clearly
dangerous or against the best interest of society (e.g. derivatives based on products or services
that are classified as dangerous or illegal). The most important area of innovation and creativity
in capital markets is in the development of new products. To limit the scope of products, that
can be offered, automatically restricts the potential for economic growth, innovation and
competition. Furthermore, a narrow, exclusive approach in the definition of OTC capital market
products may be largely self-defeating because it will result in the making and revising of lists
enumerating and defining products for regulation and establishing independent sets of
regulations or procedures. As the regulations get more complex, they create new areas for
exploiting loopholes. The business community, especially those who operate on the fringes or
create financial scams, will continually evaluate the lists to find ways in which a new instrument
can be “engineered to evade” the regulatory scheme.

We recommend that the regulations not specifically list, limit or restrict the offering of
new derivative products, except those based on products or services classified as dangerous or
illegal. That instead, the offering of new OTC products be encouraged, subject to some basic
requirements associated with notification (with a limited time period for the government to
object, request further information or, through its silence, allow the product offering to proceed)
to the government of the product offering, minimum capital levels of the offeror, disclosures of risks to buyers, etc.

(c) Definition of a Security

A second area for defining the scope of regulation has to do with the definition of the instruments covered. Are all capital market instruments, including derivative instruments, considered securities? Will it be necessary to remove any legal distinction between a security (shares or debt instruments) and a derivative contract on the same instrument? For example, a derivative, such as a warrant attached to a share or a bond, may be a security under the strict definition of a security, if upon exercise it could result in an issuance or a re-allocation of existing equity or debt. Derivative contracts have usually been considered non-issued instruments because no supply is “issued”, and because derivatives contracts often are canceled through offset with cash settlement of value differences, rather than through delivery of an actual certificate or paper. The distinction between securities and derivatives have been blurred in some countries where legal fictions or artifices have been created for purposes of bringing certain derivative instruments under the securities laws. For example, in the United States, in the early 1970’s, for purposes of bringing options on securities under the U.S. securities regulation the Chicago Board Options Exchange (CBOE) and the Securities Exchange Commission (SEC) arranged for the Options Clearing Corporation (OCC) to be considered the issuer of the option. In reality options on shares are derivatives not securities. The CBOE, however, wanted regulation by the SEC, but to be regulated by the SEC, the product needed to be considered a security. The definition of a security included the act of issuance. Since the options were not being issued, they would not fall under the SEC. Hence, the fiction of issuance by the
clearinghouse was created and applied to options traded at the CBOE. Subsequently, when stock index futures, which clearly are not issued and are derivatives just like options on listed shares, started trading in the U.S. the question of SEC jurisdiction came to the fore again, and remains not fully settled today. This mixing of the regulatory responsibility between two agencies is not recommended. In the US, it has created uncertainty, confusion, large and unnecessary legal expenses for business firms, and political bickering between Congressional Committees trying to protect their turf. In Colombia, where stock options are not yet traded, flexibility apparently exists to list stock options, when approved, either on a stock exchange or on a derivatives exchange or on both. If other legal considerations do not interfere, we suggest options on equity derivatives, (which are derivatives not securities), be regulated under the derivatives regulations. This would place all derivative products under the same regulations.

Regarding forward and futures contracts on individual shares and whether they are derivative or securities, in the United States, due to jurisdictional issues raised by the Commodity Futures Trading Commission Act of 1974 and due to SEC concerns regarding the effect that futures on individual stocks or narrow based indexes might have on the capital formation role (providing the secondary market) of stock markets, the Commodity Futures Trading Commission (CFTC) and SEC reached a joint agreement that was subsequently enacted into law. Among other provisions, this agreement and subsequent law, although sustaining an inconsistency, clearly placed options on stocks under SEC jurisdiction, and basically limited CFTC stock index approval to broader based indexes, and prevented the CFTC from approving any futures contract on an individual stock. At least three countries, however, have exchanges that list futures on individual stocks. These include Australia (Sydney Futures Exchange lists cash settled futures
on at least three stocks), Finland (Finish Options Market lists futures on at least seven stocks), and Sweden (OM Stockholm/London lists futures on approximately 14 stocks). In addition, at least one exchange (Financial Futures Market -- Amsterdam) lists a narrow based stock index future (Dutch Top).

Derivative contracts on commodities do not meet the normal definition of a security and are all considered derivatives.

We recommend that Colombia classify all capital market instruments as either securities or derivatives and then establish a set of regulations governing the trading of derivatives, both on an exchange and in the OTC market. Securities should be regulated under the existing securities regulations and derivatives under new regulations.

3. Competing or Multiple Regulators

This issue has to do with the division of labor among the various government agencies. Does Colombia want all OTC markets in capital products, including derivatives instruments, regulated by a single, unified regulatory structure that covers all capital market activities, instruments, including derivatives, and participants, issuers, dealers and investors? Or, should there be regulatory distinctions made among participants? Instruments? Activities? If products clearly do not fit the definition of securities, are they to be subject to different regulations or the same regulation as securities?

We strongly recommend that Colombia establish a single regulatory authority that speaks with one voice governing all futures, options, other derivatives, and securities trading in Colombia, whether conducted on an exchange or in the OTC market. A single unified regulatory
structure is preferable to a multi-agency system, first because it will be less confusing, more consistent in applying the laws, less costly and more efficient. Second, most other countries have already moved or are moving toward a single unified system. Third, the derivatives, especially futures and options, and securities markets all over the world are becoming integrated into a single market at a very rapid rate. Commodities trading is becoming securitized. And, the public trading in traditional physical products and in financial instruments is almost entirely a financial activity. Lastly, the regulatory responsibilities for protecting the public interests are similar for securities & futures/options trading, whether done on an exchange or in the OTC market. These responsibilities are:

(a) protecting the public from fraud;

(b) safeguarding the financial integrity of the market;

(c) protecting the market from abusive practices; and

(d) enforcing self-regulatory responsibility.

Given all of the above, there is very little reason to establish separate regulatory agencies or schemes for protecting the public interest in trading securities as distinct from trading derivatives, especially in the OTC market. In Colombia, the most logical existing agency for regulating derivatives is the Superintendency of Securities.

D. **The Authority to Regulate Derivatives Trading in Colombia**

It seems axiomatic that the operation and associated activities of a futures/options/derivatives exchange and OTC market in such instruments are vested with a
public interest. Hence, the government has the right and responsibility to regulate the products, markets, activities and participants.

In Colombia it is clear that the law allows the establishment of securities exchanges, banks, brokerage houses and other financial intermediaries for the physical exchange of shares, fixed income instruments and foreign exchange. Further the laws governing contracts are well established and enforceable. Regulatory agencies exist to license and monitor such activity. However, the laws do not explicitly recognize or state whether or not the existing regulatory schemes automatically also cover and imbue the authorized agencies with the power to regulate and license activity in "Derivatives" of these same instruments, especially where the derivatives contain an amalgam of the characteristics of shares and contracts and also cross the lines of demarcation between and among the various regulatory agencies.

It is important that the legal status of an exchange and its brokers be established at the outset. Investors organizing an exchange need certainty that there is legal standing for their business. Derivatives trading often involves the use of leverage, resulting in large gains and losses for the traders. Brokers acting as agents for the participants need to be assured that traders who lose large sums of money cannot subsequently refuse to pay their debts on the basis that the whole activity of trading derivatives was never a legal enterprise. The same is true for the OTC market in derivatives.

In Colombia, a strong case can be made that the language contained in the laws and decrees authorizing the Superintendency of Securities to license and regulate stock exchanges and brokers, also provides legal authority for the Superintendency of Securities to license and regulate derivatives exchanges and brokers. For example, Article 3.3.1.2 of the "Estatuto
Organico del Mercado Publico de Valores” refers to "analog activities", which could be interpreted as meaning the establishment by brokers of an organization (exchange or OTC market), rules, procedures and processes to facilitate the buying and selling for future delivery and settlement of publicly traded interests in financial instruments (shares and contracts) that are designed to transfer property rights or the changes in value of property rights. Thus, it is argued the intent of the decree was to encompass the "activity" of trading of financial instruments, with or for the public, as opposed to being restricted in application only to the trading in a narrow product class, securities. When article 3.3.1.2 is read in conjunction with 3.2.1.1., 3.2.3.15. and 4.1.2.2. of the same statute, the argument is strengthened that the Superintendency of Securities has the right and responsibility to license and regulate any activity involving the offering to buy from, sell to, broker or make a market in derivative products whose value and change in value is derived from other instruments or contracts representing capital market instruments, shares or contracts in such.

Discussions on this topic were held with senior officials of the Ministerio de Hacienda, the Superintendency of Securities and the Superintendency of Banking. While all recognized the strength of the arguments presented above, it was acknowledged that there could be differing interpretations. Therefore, it was suggested that another alternative, the authority of the Sala-General de la Superintendencia de Valores (Sala-General), be utilized during an interim period while legislation is being drafted and presented to the congress, to assure the legal standing of derivatives trading and the right to regulate it, both in the OTC market and on an exchange. The Sala-General is a supervisory and coordinating body, which has responsibility for coordinating and mediating the interests of government departments, and can request the issuance of
Presidential decrees to clarify and establish authority and responsibility on issues such as the regulation of derivatives. To assure clarity of authority and responsibility for the regulatory activity, the Sala-General could assign authority for regulating derivatives trading to the Superintendency of Securities, subject to review and coordination by the Sala-General of those aspects of the regulation that might impact other government departments and agencies. (e.g. foreign exchange, agricultural products, etc.)

We recommend utilizing this power of the Sala-General, during an interim period while legislation is being drafted and presented to the congress to revise and modify the law defining the scope and authority of the Superintendency of Securities in regulating the derivatives trading in Colombia. This approach will enable continued progress toward modernizing and enhancing the capital market structures in Colombia, while also making clear the legal standing of derivatives and their associated regulatory status.

1. **What Role for Self-Regulatory Organizations in the OTC Market?**

Colombia has a legal and regulatory framework for licensing and regulating the Stock Brokers, Stock Exchanges, and financial institutions and the products or services offered by them. Furthermore, it is considering the extension of that regulatory apparatus to the regulation of a Futures and Options Exchange and Clearinghouse, should the industry make application to the government for establishment of such an exchange.

As noted above, we recommend that Colombia permit an OTC market in derivatives by offering to license persons doing business with the public, with exemptions for those commercial businesses and professionals dealing amongst themselves and with additional exemptions, or a
streamlined licensing process, for those institutions, such as banks and insurance companies, who are already licensed and regulated for offering financial products to the public and want to also offer derivative products to the public.

For those not subject to or not exempt from existing regulation, we recommend that Colombia allow and encourage those firms to establish a strong Self-Regulatory Organization that can be licensed as such by the regulator. Self-Regulatory Organizations (SROs) are often the most powerful and efficient vehicles to provide oversight, review and enforcement of codes for conducting business with the public. The important aspect of the use of SROs is to instill a "culture of accountability" among the participants.

Self regulation works because it represents rules agreed upon by competitors governing their business conduct in their marketplace. Self regulatory justice is usually much more direct, swift and feared than justice meted out through bureaucratic gamesmanship and manipulation of rules and procedures for delaying or preventing action. Self regulation usually shifts the cost from the general public (the taxpayer), a tiny fraction of whom will trade derivatives or use the exchange, to those who trade, use the services of the exchange and the clearinghouse and profit directly from the activity. Those who are directly involved in the business and who reap the profits have the highest motivation to protect their investment, to preserve and strengthen their future earning power and to protect themselves and their marketplace from the debilitating effects of a loss of public confidence as a result of fraudulent, unfair and unsafe business practices.

We recommend the Colombian government license SROs and authorize them to establish policies, procedures, rules and regulations governing their members conduct with
respect to their dealings with the public. We further recommend that the Colombian government’s role, beyond the licensing, be one of oversight, review and audit of the SRO to see that it establishes fair rules of conduct and enforces its rules fairly. This approach would give confidence to those who dealt in those markets that the government not only was aware of the activity, but also had in place a procedure for monitoring the activity and, if need be, stepping in to take action should the SRO fail to act or act improperly. This approach also reduces the government’s cost of regulation while retaining power. It can as a last resort revoke the SRO’s license.

2. Systemic Risk, Capital Requirements and Capital Risk Assessment

Systemic risk refers to the risk that financial failures in one area of the market or one firm will impact other areas or other firms, thus generating a “domino effect” and causing the collapse of the whole system. Derivative instruments are by definition linked to other financial instruments. Often OTC derivatives (usually called structured products) involve the extension of credit, the borrowing of another firm’s balance sheet as a means of improving creditworthiness, cross-border linkages and a whole chain of agreements all structured in a way that each party in the chain knows only those aspects of the transaction that relate to the parties adjoining their link. They often do not know the other linkages. In many such transactions a cash flow failure by one party, (it does not even take a bankruptcy to prompt such an event), can set off a chain of events that causes multiple cash flow failures down the chain and damages or de-stabilizes the whole financial system. This is a serious concern of public officials responsible for public policy and the protection of the public interests in the capital markets. Furthermore, it is of particular concern in the OTC market, where the structured instruments and the transactions in them are not
subject to the scrutiny of an exchange, not reported to a clearinghouse and generally not visible or known.

The best way, and probably the only effective way, of handling systemic risk is through the imposition of minimum capital requirements for all firms offering OTC products to the public with the further requirement that such firms must report on their capital status on a regular basis. This system works only if enforcement is diligent. (i.e. such reports are reviewed, compared to minimum standards and where violations of such minimum standards occur that enforcement actions are taken immediately and directly against the offending firm).

3. Setting Financial Requirements for the OTC Market

As noted above the most important means of protecting against undue systemic risk is the establishment and enforcement of minimum capital requirements. Requiring minimum capital levels based on business volume, and some standard for measuring the risks associated with the commitments made by the parties, will automatically reduce the probability of bankruptcy or financial failure. By definition, such a process, and the lower probability of financial failure, helps control systemic risk. Second, minimum capital requirements are a signal that firms entering the business must be serious about the commitment they are making. Third, it weeds out firms who may otherwise be tempted to operate near the margin or at levels where even small losses would result in their bankruptcy and potential damage to their customers and other members of the industry. Fourthly, it helps assure that if a firm is convicted of wrongdoing that causes losses to others, there are assets available to pay the damages.
In all of these cases, the establishment of minimum capital requirements is a preferred means of preventive action. Hence, SROs should be granted the right to establish and enforce minimum capital requirements for their members, subject to such requirements not being used as a barrier to entry in order to create a monopoly or to unduly restrict competition.

We suggest that initially minimum capital requirements for all issuers be set at a flat amount, say 1000 million pesos, or some similar number. That number should be increased as an issuer, dealer or broker increases his volume beyond some minimum amount. We are not in a position to recommend a precise level for minimum capital, but judging from our knowledge of the Colombian market, experience in other countries and common sense, we believe 1000 million pesos is sufficiently high as a minimum to assure a level of seriousness by entrants without being an undue barrier to entry. Here in the US we do not find agreement on the appropriate formula to use in setting such capital requirements. Hence, we believe it is best, and justifiable, to set a flat number that will require a firm to be of substance before it enters this business and to increase its capital as the volume and riskiness of its business expands. The next, and related point is the location or availability of the capital (i.e. degree of liquidity, location, etc.) and collateral for any potential claims. There should probably be a requirement that the firm maintain the collateral in a place and manner accessible to Colombian courts and authorities.

4. **Tools for Regulatory - A Summary**

In summary, probably the most useful and easily employed tools and techniques for regulating business conduct in the OTC capital market are:
(a) **Licensing of suppliers, sellers and brokers of services:**

This process brings all dealers into a basic regulatory framework and also facilitates establishing self regulatory organizations and rules. Standards, such as financial requirements and business conduct can be established and enforced more easily with licensing, given that violators of those standards can lose their license. Reporting requirements can also be more easily established and risk exposure and business activity monitored.

(b) **Establishing Operational and Compliance requirements and procedures:**

Self regulatory organizations, under government oversight, should:

(1) Set up safeguards for the handling of customer funds and establish limitations on the extension of credit to customers for trading purposes.

a' Segregation of customer funds from the funds of the broker/dealer would prohibit a broker/dealer from using customer funds for its own purposes or from using the funds of one customer to support the trading in another customer's account.

b' The segregated funds provisions will also require broker/dealers to separately account for, and settle, proprietary (broker's own accounts) and customer accounts. This will require separate trade registers and accounting ledgers and journals. Basically, the broker/dealers, will need to maintain separate accounting and recordkeeping systems for customer and proprietary accounts.

c' Likewise, bankruptcy laws will need to be reviewed for issues relating to treatment of customer funds in the event of bankruptcy of a broker/dealer. To the
extent possible, segregated funds should be treated as identifiable assets belonging to customers and not subject to distribution to other creditors of a bankrupt broker/dealer.

d' Placing limits on the extension of credit by the broker/dealer decreases systemic risk and increases the financial protection of the customer and dealer.

(2) Establish trading standards, including a Code of Conduct of dealing with the public. Such a code would increase the overall confidence in the market and increase the standardization of trading practices, without lessening real competition.

(3) Establish criteria governing sales practices, risk disclosure and advertising. The best remedy for assuring that citizens will not be led into unsuitable investments is to require that all participants offering products to the general public in the Over-the-Counter Market meet certain disclosure standards regarding the products they are offering.

(4) This should help insure that:

a' customers are protected from fraudulent trading practices and provide for customer recovery of damages;

b' provide for adequate disclosure of risks; and,

c' better insure that advertising is not misleading.

(5) Setup recordkeeping requirements and establish the minimum documentation necessary to record and confirm business transactions with customers. This would provide for the creation of an audit trail to enable transactions to be reconstructed later, if needed, in the instance of a dispute.
(6) Establish and conduct a dispute resolution process, such as arbitration. This should, if properly implemented, increase confidence in dealings by ensuring both parties to any transaction that a fair, easy to use, and quick process exists to resolve disputes.

(7) Establish financial reporting. Requiring principals of a firm to report the financial status of their firms is the most effective and efficient means of gathering knowledge of existing and potential problems. Knowledge is the first step toward enforcement of standards. None of the elements above will be effective unless enforced. Without a reporting requirement, enforcement of rules, protection of the public interest and integrity of the financial markets is extremely difficult and basically passive. All licensed SROs should be required to establish a reporting requirement for their members. The government should audit the SRO periodically to see that the reporting is enforced.

In most instances, these tools will provide an SRO sufficient power to identify the participants and affect the behavioral patterns of OTC firms toward the desired ends.

End of Report
V. ANNEX A

A. Product Description

The product descriptions that follow are either variations of the forward contract or an option or have those characteristics embedded in their structures.

- An **Embedded Option** is an option that is an inseparable part of another instrument. Most are a conversion feature in a bond, loan, mortgage etc.

- A **Futures** is a special type of forward contract. It is a standardized forward contract traded subject to the rules of an organized exchange and settled through a clearinghouse allowing the "right of substitution" and cancellation through offset.

- A **Forward Rate Agreement** is a contract establishing an interest rate to be paid or received on a specific obligation at a date in the future. Usually the contract amount to which the interest rate is applied is notional. The agreement may not necessarily be linked to the owner of the underlying obligation. It is sometimes thought of as an OTC futures contract.

- A **Euro-Convertible Debenture** is a convertible debenture denominated in a currency other than the currency of the issuing country. Usually these are designed to exploit interest differentials between countries.

- **Securitized Loans** (auto, real estate) are securities issued by a trust, holding as collateral for the securities, loans on autos, real estate, credit cards etc. The securities pay principal and interest to the holder based upon the cash flows
received on the loans in the trust. The value of the trust securities is derived from the Principal & Interest payments made (and not made) on the car loans, real estate, etc.

- **Equity Options** (individual shares, indexes, baskets) are options to buy or sell a given number of shares in a specified company, and index of those shares, or a basket of shares, at a given price within a specified time period. A Put option confers the right, but not the obligation, to sell the shares or index. A Call option confers the right to buy the shares or index.

- **An Equity Swap** is a contractual agreement whereby one party agrees to pay the other party the return on a notional value amount of a basket of shares in exchange for receipt from the opposite party of a return equal to LIBOR plus on the same notional value amount. Variations on these contracts are used in many emerging countries in conjunction with planned public offerings of privately held companies.

- **Equity Linked Notes** are the equivalent of a combination of a low coupon bond with return linked to a single security or a basket or an index.

- **A Cash Flow Swap (Equity, Currency, Index)** is a contract to exchange a stream of periodic payments with a counterparty. These are mathematically equivalent to a series of forward contracts

- **Informal Futures/Option Markets** are essentially private forward contracts in which the offer of the product relates the buy/sell price to a listed futures or
option. These operators are often called "bucket shops", as the customer is lead to believe they are trading a futures when in reality the contracts are not subject to the rules or procedures or safeguards associated with an exchange clearinghouse.

- **A Warrant** is a long dated Call Option, usually with an original maturity in excess of 2 years and with a specific supply issued at the outset of the offering.

- **Index Warrants** are Puts & Calls on an Index or an index futures. Usually these warrants are issued by corporations, investment banks, insurance companies and other financial corporations as a method of borrowing and lending money. Sometimes they are used as a means of evading rules restricting foreign ownership of shares or foreign participation in a share market. Often the warrants have multiple strike process and they are usually cash settled upon maturity.

- **Covered Warrants on Stocks** - A stock or basket of stocks or index warrant secured by the shares or by the specific credit of the issuer. These are used mainly when the transfer of shares is restricted or buyers want security.

### B. Further Description and Discussion of the Issues

Many emerging market countries that do not have futures or options markets have found the OTC warrant market as the first and easiest market to develop. From a regulatory standpoint that often poses the toughest questions because warrants have many of the characteristics of a security (e.g. they involve an issuance of a certain supply) and they also display the characteristics of a contract.
Warrant-type derivatives are often traded on stock exchanges in other countries. For example, in the US the American Stock Exchange (AMEX) currently lists warrants on international and domestic share indexes, currency instruments, equity-linked term notes, and other structured products. These listed warrants are primarily issuances by brokers and investment bankers. The following further describes some of the products enumerated above but puts special emphasis on the various warrant products and discusses some of the elements and issues associated with their trading in the OTC market.

1. **Corporate Issued Warrants ("Traditional Warrants")**

**Description** -- A corporate warrant is basically a call option, or right, issued by a corporation entitling the holder (investor) to purchase a specified number of shares, at a specified price, within a specified time period. Each warrant issuance contains its own stated terms and conditions and generally has an expiration date of at least one year with most being at least three to five years or longer. Some warrants are issued as perpetual warrants. Each issuance, however, may, regulations permitting, set any expiration date: The terms and conditions specify either a one-to-one conversion ratio or some other conversion rate that may involve fractional shares. As with options, warrants are "wasting assets" and, unless the common stock price rises above the warrant ("exercise") price, the warrant will expire worthless. Although initially issued by corporations, warrants trade in the secondary market either on exchanges or in Over-the-Counter markets. The exercise of a warrant results in the issuance, by the corporation, of new common stock, thus forming the basis of an important regulatory distinction that may be used in regulating products either as securities or as derivative contracts.
Uses. -- Warrants are often issued attached to bonds as a marketing tool enabling the corporate issuer to obtain lower financing costs. In this situation, the bonds/debentures with warrants attached constitute a packaging of securities that can be detached, or stripped out, and sold separately by the investor. Corporations also issue warrants in connection with acquisitions and corporate reorganizations or during new stock issuances as part of a common stock offering or as partial compensation to underwriters. Warrants also offer investors a cheaper and higher leveraged way to speculate on a specific stock.

Comparison with Call Options -- As noted above, warrants are very similar to call options. Several significant differences, however, can be used for regulatory purposes including the following:

Warrants are issuances by corporations whereas options are market created, usually by a third party, without a set issuance limitation;

Warrants generally have longer expiration dates than options, especially exchange traded options, (For example one to three or more years for warrants vs. quarterly or monthly expirations for most exchange traded options), although some exchanges now trade long-dated options (LEAPS) out to two or three years; and

Warrants are generally less standardized in their terms and conditions than are options, especially exchange traded options.

2. Index Linked Bonds

This product is similar to the bonds with warrants attached except that an index feature is used rather than a conversion to common stock feature. Index-linked bonds generally involve a
corporate sale (issuance) of bonds with a "call warrant" index feature, using a stock index, which enables the issuing corporation to obtain cheaper initial funding and enables the investor to receive any gains in the index value. If the index rises, then the corporation pays the investor the additional capital gains and if the index declines the corporation generally pays the investor a specified nominal interest payment plus return of the principal investment. The selling corporation sometimes hedges these transactions with equity derivative swaps. More complex index-linked bonds with put option features also have been offered often through bank arranged transactions involving the matching of investors with issuers. Since index linked bonds involve the corporate issuance of a bond, these instruments would seem to be securities.

3. **Convertible Securities**

Another type of equity derivative is the convertible security that can either be a bond/debenture or preferred stock issuance with a provision enabling the investor to convert the security into common stock under the specified terms and conditions, including conversion time period, conversion ratio, and conversion price. If not exercised, then the bond remains in effect until maturity or the preferred stock continues without being converted to common stock. Thus, as in the case of warrants, convertible securities are issuances that, if converted, also result in the creation of new common stock. But while they contain an option feature, they differ from options in that, even if not exercised, an asset (bond or preferred stock) remains.

4. **Examples of Other Warrant-Type Derivative Products**

Reviewed below are examples of warrant-type derivative products that while consisting of initial issuances do not involve the creation of new equity. Instead, either existing equity is reallocated
or the contracts are cash settled. Thus, in the proposed regulatory approach, these products and similar type products would be regulated as derivatives under the new Act. In this regard it should be noted that simply calling an investment a warrant should not necessarily make it a security. As is evident below a number of products are marketed as covered warrants that are clearly derivatives of traditional warrants. Hence, if the Superintendency of Securities has in the past issued language saying warrants are securities, the Superintendency may want to promulgate language that states explicitly that the use of the term "warrant" in a product name will not be the determining factor in whether the product is considered a security or a derivative for regulatory purposes.

**Covered Warrants** -- These equity derivatives consist of issuances by third parties, such as banks and brokers, "covered" by the underlying stock, or in some cases by other warrants or options, of a specified corporation, exercisable at a specified price, within a specified time period. Covered warrant issuances contain various redemption features and some have cash settlement provisions. Although involving issuances, an important difference from traditional warrants is that covered warrants are not instruments issued by corporations that can be converted into new equity but, instead, result in the reallocation of debt or equity by the issuer (writer) or, in some cases, cash settlement. Except for the issuance feature, it is basically an option.

**Index Warrants** -- These derivative instruments, which are similar to the covered warrants reviewed above and are often referred to as covered index warrants, are normally cash settled, issued by financial institutions or brokers, can be issued as either put or call warrants, and involve various stock indexes such as the S&P 500 or Nikkei 225. This type of derivative
instrument is particularly appealing for indexes that do not have a futures contract, such as the Bolsa de Bogota Share Index. The put option feature can afford downside market protection for a holder of a portfolio of stocks.

**Basket Warrants** -- These equity derivatives are similar to the covered and index warrants reviewed above except that they are based on a “basket” of securities with exercise prices generally calculated on a narrow index (“basket”) basis. Both put and call warrants are offered with exercise generally resulting in cash settlement. The “baskets” often consist of selected industry or geographic sectors and are generally written by banks or other institutions or brokers holding a portfolio of the basket stocks. These basket warrants have enabled portfolio and fund managers to acquire or hedge investments in markets that otherwise are not available.

5. **Swaps Involving Equity Derivatives**

Although not a warrant type product, there are various types of equity derivative swaps, including many that are highly customized to suit the parties, that basically involve an exchange of revenue flows based on the financial gain or loss of an equity, basket of equities, or index. Thus raising questions as to whether they are to be regulated in the same way as the underlying securities or as separate derivatives. Payments are either exchanged periodically, such as quarterly, or at maturity. Maturities typically range from one to five years although the swap can be structured with longer or shorter maturities. As noted, however, the swap transactions involve an exchange of revenue flows, not the issuance or exchange of securities. Accordingly, these products as well as other swap transactions would be contracts as opposed to securities.
References:


Table A.1  Country Economic Overview

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<td>GDP</td>
<td>n.d.</td>
<td>355,567</td>
<td>14,049*</td>
<td>618,600*</td>
<td>57,100*</td>
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<td>GDP 1990</td>
<td>n.d.</td>
<td>11,953</td>
<td>11,303</td>
<td>10,847</td>
<td>10,937</td>
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<td>Prices**</td>
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<td>11,953</td>
<td>11,303</td>
<td>10,847</td>
<td>10,937</td>
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<td>CPI 1990=1</td>
<td>72,161</td>
<td>37,331</td>
<td>1,348</td>
<td>60</td>
<td>5</td>
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<td>Govt Deficit*</td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
<td>(24,389)</td>
<td>(549)</td>
</tr>
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<td>Govt Deficit as a percent of GDP</td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
<td>3.94</td>
<td>.96</td>
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<td>Exchange Rate of Period +</td>
<td>.953</td>
<td>.639</td>
<td>.032</td>
<td>1.641</td>
<td>.148</td>
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<tr>
<td>Deposit Rate</td>
<td>44</td>
<td>5,175</td>
<td>3,294</td>
<td>1,560</td>
<td>913</td>
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<td>Trade Balance***</td>
<td>n.d.</td>
<td>10,861</td>
<td>14,861</td>
<td>15,239</td>
<td>10,578</td>
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*Millions of Reals
**Thousands of Reals
***Millions of US dollars

Source: International Monetary Fund
### Table A.2 Exchange Trading Volume (Contract Units)*

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<th></th>
<th></th>
<th></th>
</tr>
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<tr>
<td>Futures</td>
<td>63,804,168</td>
<td>88,542,063</td>
<td>39,223,603</td>
<td>25,921,584</td>
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<tr>
<td>Options</td>
<td>7,888,079</td>
<td>14,439,720</td>
<td>12,213,672</td>
<td>9,150,562</td>
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<tr>
<td>Total of Financial</td>
<td>71,692,247</td>
<td>102,981,783</td>
<td>52,213,672</td>
<td>35,072,146</td>
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</table>

* Source: Futures Industry Association, Washington, D.C.

### Table C.3 Country Economic Overview Table

<table>
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<td>GDP*</td>
<td>n.d.</td>
<td>64,673</td>
<td>60,904</td>
<td>59,002</td>
<td>54,901</td>
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<td>GDP**</td>
<td>n.d.</td>
<td>490,913.9</td>
<td>428,268.1</td>
<td>514,764.8</td>
<td>567,804.3</td>
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<td>GDP*1990 Prices</td>
<td>n.d.</td>
<td>52,064</td>
<td>51,054</td>
<td>51,625</td>
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<td>CPI 1990 Base</td>
<td>n.d.</td>
<td>122.9</td>
<td>117.3</td>
<td>112.2</td>
<td>105.9</td>
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<td>Exchange Rate (end of period)</td>
<td>120.72</td>
<td>131.74</td>
<td>142.21</td>
<td>114.62</td>
<td>96.69</td>
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<td>T-bill rate</td>
<td>10.13</td>
<td>8.11</td>
<td>10.53</td>
<td>12.44</td>
<td>12.45</td>
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<td>Domestic Debt*</td>
<td>n.d.</td>
<td>28,555.0</td>
<td>22,334.3</td>
<td>20,292.8</td>
<td>17,868.5</td>
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<td>Foreign Debt*</td>
<td>n.d.</td>
<td>5,893.0</td>
<td>6,364.6</td>
<td>3,259.9</td>
<td>2,968.8</td>
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<td>Govt Deficit as a percent of GDP</td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
<td>4.28</td>
<td>3.20</td>
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<td>Gov't Deficit*</td>
<td>(796.6) Mar.</td>
<td>(4,953.0)</td>
<td>(4,221.4)</td>
<td>(2,523.5)</td>
<td>(1,758.0)</td>
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<td>Trade Balance**</td>
<td>n.d.</td>
<td>(15,335)</td>
<td>(15,718)</td>
<td>(31,034)</td>
<td>(30,753)</td>
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* Billions of Pesetas
**Millions of U.S. Dollars

Source: International Monetary Fund

### Table C.4 Exchange Trading Volume (Contract Units) MEFF RF*

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<tr>
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<tr>
<td>Futures</td>
<td>10,277,737</td>
<td>17,380,115</td>
<td>6,919,810</td>
<td>1,828,616</td>
<td>1,005,781</td>
<td>188,744</td>
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<td>Options</td>
<td>1,389,401</td>
<td>2,355,214</td>
<td>1,227,522</td>
<td>390,077</td>
<td>n.d.</td>
<td>n.d.</td>
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<td>Total of Financial</td>
<td>11,667,138</td>
<td>19,735,329</td>
<td>8,147,332</td>
<td>2,218,683</td>
<td>1,005,781</td>
<td>188,744</td>
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*Source: Futures Industry Association, Washington, D.C.

**Table C.5 Exchange Trading Volume (Contract Units)**

*(Index Futures and Options)-- MEFF-RV*

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<th></th>
<th>1995 (Jan-Jun)</th>
<th>1994</th>
<th>1993</th>
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<td>Futures</td>
<td>14,443,886</td>
<td>27,020,886</td>
<td>10,856,012</td>
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<td>Options</td>
<td>4,883,761</td>
<td>7,541,551</td>
<td>3,563,485</td>
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<td>Total of Financial</td>
<td>19,317,647</td>
<td>34,562,437</td>
<td>14,419,497</td>
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*Source: Futures Industry Association, Washington, D.C.*
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<td>GDP*</td>
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<td>1,687.6</td>
<td>1,475.0</td>
<td>1,351.6</td>
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<td>GDP***</td>
<td>n.d.</td>
<td>69,112.9</td>
<td>53,251.0</td>
<td>55,837.2</td>
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<td>GDP*1990 Prices</td>
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<td>1,144.6</td>
<td>1,097.6</td>
<td>1,074.6</td>
<td>1,071.0</td>
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<tr>
<td>CPI 1990 base</td>
<td>156.7 (Feb)</td>
<td>151.7</td>
<td>139.1</td>
<td>129.3</td>
<td>118.7</td>
</tr>
<tr>
<td>Exchange Rate (end of period)</td>
<td>25.987</td>
<td>24.418</td>
<td>27.699</td>
<td>25.096</td>
<td>26.650</td>
</tr>
<tr>
<td>Domestic Debt**</td>
<td>n.d.</td>
<td>n.d.</td>
<td>640,867</td>
<td>435,110</td>
<td>330,380</td>
</tr>
<tr>
<td>Foreign Debt**</td>
<td>n.d.</td>
<td>n.d.</td>
<td>348,955</td>
<td>278,150</td>
<td>289,858</td>
</tr>
<tr>
<td>Gov't Deficit or surplus**</td>
<td>n.d.</td>
<td>18,114</td>
<td>(21,891)</td>
<td>(15,966)</td>
<td>(26,349)</td>
</tr>
<tr>
<td>Govt Deficit as a percent of GDP</td>
<td>n.d.</td>
<td>n.d.</td>
<td>1.48</td>
<td>1.18</td>
<td>2.11</td>
</tr>
<tr>
<td>Trade Balance***</td>
<td>n.d.</td>
<td>n.d.</td>
<td>(6,222)</td>
<td>(4,695)</td>
<td>(3,211)</td>
</tr>
</tbody>
</table>

* Billions of Pesos
** Millions of Pesos
*** Millions of U.S. Dollars

Source: International Monetary Fund
<table>
<thead>
<tr>
<th></th>
<th>1995 (Jan-Jun)</th>
<th>1994</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Futures</td>
<td>531,960</td>
<td>3,091,894</td>
<td>1,749,650</td>
</tr>
<tr>
<td>Options</td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
</tr>
<tr>
<td>Total of Financial</td>
<td>531,960 (42.2)</td>
<td>3,091,894  (12.7)</td>
<td>1,749,650 (24.4)</td>
</tr>
</tbody>
</table>

*Source: Futures Industry Association, Washington, D.C.*
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>GDP*</td>
<td>n.d.</td>
<td>432,753</td>
<td>383,071</td>
<td>340,963</td>
<td>310,074</td>
</tr>
<tr>
<td>GDP***</td>
<td>n.d.</td>
<td>251,924.3</td>
<td>224,586.3</td>
<td>203,970.4</td>
<td>189,596.7</td>
</tr>
<tr>
<td>GDP* 1990 Prices</td>
<td>n.d.</td>
<td>276,464</td>
<td>270,181</td>
<td>267,257</td>
<td>273,249</td>
</tr>
<tr>
<td>CPI 1990 Base</td>
<td>169.9 (Apr)</td>
<td>137.1</td>
<td>144.0</td>
<td>151.3</td>
<td>115.3</td>
</tr>
<tr>
<td>Exchange Rate**</td>
<td>.27170</td>
<td>.28221</td>
<td>.29433</td>
<td>.32755</td>
<td>.36456</td>
</tr>
<tr>
<td><em>(End of Period)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T-bill Rate</td>
<td>13.01 (Mar)</td>
<td>n.d.</td>
<td>11.31</td>
<td>13.77</td>
<td>16.68</td>
</tr>
<tr>
<td>Domestic Debt*</td>
<td>n.d.</td>
<td>225,085</td>
<td>171,606</td>
<td>136,227</td>
<td>112,470</td>
</tr>
<tr>
<td>Foreign Debt*</td>
<td>n.d.</td>
<td>8,058</td>
<td>5,029</td>
<td>2,367</td>
<td>2,099</td>
</tr>
<tr>
<td>Gov’t. Deficit*</td>
<td>n.d.</td>
<td>(25,291)</td>
<td>(29,484)</td>
<td>(21,265)</td>
<td>(12,506)</td>
</tr>
<tr>
<td>Govt. Deficit as a percent of GDP</td>
<td>n.d.</td>
<td>5.84</td>
<td>7.70</td>
<td>6.24</td>
<td>9.03</td>
</tr>
<tr>
<td>Trade Balance***</td>
<td>n.d.</td>
<td>n.d.</td>
<td>5,781</td>
<td>5,429</td>
<td>6,134</td>
</tr>
</tbody>
</table>

*Millions of Rand

**Dual exchange rate system (commercial and financial) U.S. dollar per rand

***Millions of U.S. Dollars

Source: International Monetary Fund
### Table E.9 Exchange Trading Volume (Contract Unit)*

<table>
<thead>
<tr>
<th></th>
<th>1995 (Jan-Jun)</th>
<th>1994</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Futures</td>
<td>2,181,586</td>
<td>4,059,859</td>
<td>2,997,553</td>
</tr>
<tr>
<td>Options</td>
<td>2,185,818</td>
<td>3,318,078</td>
<td>1,487,420</td>
</tr>
<tr>
<td>Total of Financial</td>
<td>4,367,404</td>
<td>7,377,937</td>
<td>4,484,973</td>
</tr>
</tbody>
</table>

*Source: Futures Industry Association, Washington, D.C.

### Table H.10 Country Economic Overview Table

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>GDP*</td>
<td>n.d.</td>
<td>185,344</td>
<td>163,039</td>
<td>147,784</td>
<td>129,559</td>
</tr>
<tr>
<td>GDP***</td>
<td>n.d.</td>
<td>72,400.0</td>
<td>60,351.3</td>
<td>56,578.9</td>
<td>47,562.0</td>
</tr>
<tr>
<td>GDP*1990 Prices</td>
<td>n.d.</td>
<td>159,848</td>
<td>146,987</td>
<td>135,667</td>
<td>125,861</td>
</tr>
<tr>
<td>CPI 1990 base</td>
<td>122.6 (Feb)</td>
<td>117.4</td>
<td>113.2</td>
<td>109.3</td>
<td>104.4</td>
</tr>
<tr>
<td>Exchange Rate (end of period)</td>
<td>2.4715</td>
<td>2.5600</td>
<td>2.7015</td>
<td>2.6120</td>
<td>2.7240</td>
</tr>
<tr>
<td>Gov't Surplus or Deficit</td>
<td>n.d.</td>
<td>4,407</td>
<td>354</td>
<td>(6,243)</td>
<td>(5,640)</td>
</tr>
<tr>
<td>Govt Deficit as percent of GDP surplus</td>
<td>n.d.</td>
<td>2.38</td>
<td>.2</td>
<td>4.22</td>
<td>4.35</td>
</tr>
<tr>
<td>Trade Balance**</td>
<td>n.d.</td>
<td>n.d.</td>
<td>3,183</td>
<td>3,375</td>
<td>527</td>
</tr>
</tbody>
</table>

*Millions of Ringgit

**Millions of U.S. Dollars

Source: International Monetary Fund
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Futures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Jan-Jun)</td>
<td>281,113</td>
<td>568,132</td>
<td>362,958</td>
<td>255,989</td>
<td>324,971</td>
</tr>
<tr>
<td><strong>Total of Financial</strong></td>
<td>281,113</td>
<td>568,132</td>
<td>362,958</td>
<td>255,989</td>
<td>324,971</td>
</tr>
</tbody>
</table>

*Source: Futures Industry Association, Washington, D.C.*
Table I.12  Country Economic Overview Table

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP*</td>
<td>n.d.</td>
<td>2,244.9</td>
<td>2,117.8</td>
<td>2,046.1</td>
<td>1,928.3</td>
</tr>
<tr>
<td>GDP**</td>
<td>n.d.</td>
<td>202,334.4</td>
<td>174,405.0</td>
<td>180,209.6</td>
<td>180,400.4</td>
</tr>
<tr>
<td>GDP*1990 Prices</td>
<td>n.d.</td>
<td>1,939.2</td>
<td>1,887.5</td>
<td>1,888.6</td>
<td>1,854.3</td>
</tr>
<tr>
<td>CPI 1990 Base</td>
<td>116.8 (Mar)</td>
<td>114.7</td>
<td>111.4</td>
<td>107.5</td>
<td>103.3</td>
</tr>
<tr>
<td>Exchange Rate (end of period)</td>
<td>9.751</td>
<td>11.095</td>
<td>12.143</td>
<td>11.354</td>
<td>10.689</td>
</tr>
<tr>
<td>Money Market Rate</td>
<td>4.78 (Jan)</td>
<td>5.03</td>
<td>7.22</td>
<td>9.35</td>
<td>9.10</td>
</tr>
<tr>
<td>Gov't Deficit*</td>
<td>n.d.</td>
<td>n.d.</td>
<td>(107.27)</td>
<td>(79.62)</td>
<td>(91.69)</td>
</tr>
<tr>
<td>Gov't Deficit as a percent of GDP</td>
<td>n.d.</td>
<td>n.d.</td>
<td>05.07</td>
<td>03.89</td>
<td>04.75</td>
</tr>
<tr>
<td>Trade Balance**</td>
<td>n.d.</td>
<td>(9,210)</td>
<td>(7,825)</td>
<td>(8,841)</td>
<td>(8,597)</td>
</tr>
</tbody>
</table>

*Billions of Austrian Schillings  
**Millions of U.S. Dollars  
Source: International Monetary Fund
<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Futures</td>
<td>356,157</td>
<td>472,361</td>
<td>217,505</td>
<td>66,898</td>
</tr>
<tr>
<td>Options</td>
<td>1,010,164</td>
<td>1,261,859</td>
<td>672,985</td>
<td>176,219</td>
</tr>
<tr>
<td>Total of Financial</td>
<td>1,366,321</td>
<td>1,734,220</td>
<td>890,490</td>
<td>243,117</td>
</tr>
</tbody>
</table>

*Source: Futures Industry Association, Washington, D.C.*
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP</strong></td>
<td>n.d.</td>
<td>1,641.1</td>
<td>1,550.2</td>
<td>1,507.2</td>
<td>1,426.6</td>
</tr>
<tr>
<td><strong>GDP</strong></td>
<td>1,006,995.2</td>
<td>909,741.8</td>
<td>1,024,678.8</td>
<td>1,239,336.3</td>
<td>n.d.</td>
</tr>
<tr>
<td><strong>GDP*1990 Prices</strong></td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
<td>1,340.84</td>
<td>1,328.50</td>
</tr>
<tr>
<td><strong>CPI 1990 Base</strong></td>
<td>124.0 (Jan)</td>
<td>121.2</td>
<td>116.8</td>
<td>111.8</td>
<td>106.3</td>
</tr>
<tr>
<td><strong>Exchange Rate (end</strong></td>
<td>1,616.4</td>
<td>1,629.7</td>
<td>1,704.0</td>
<td>1,470.9</td>
<td>1,151.1</td>
</tr>
<tr>
<td><strong>of period)</strong></td>
<td>(May)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>T-bill Rate</strong></td>
<td>11.57 (May)</td>
<td>9.17</td>
<td>10.58</td>
<td>14.32</td>
<td>12.54</td>
</tr>
<tr>
<td><strong>Gov't Deficit</strong></td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
<td>(152.30)</td>
</tr>
<tr>
<td><strong>Gov't Deficit as</strong></td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
<td>10.68</td>
</tr>
<tr>
<td><strong>percent of GDP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trade Balance</strong></td>
<td>n.d.</td>
<td>35,497</td>
<td>32,825</td>
<td>3,085</td>
<td>(445)</td>
</tr>
</tbody>
</table>

*Trillions of Lire  
**Millions of U.S. Dollars

Source: International Monetary Fund
### Table K.15  Exchange Trading Volume (Contract Units)* — MIF

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Futures</td>
<td>1,566,108</td>
<td>4,369,917</td>
<td>4,414,248</td>
<td>569,183</td>
</tr>
<tr>
<td>Options</td>
<td>50,886</td>
<td>n.d.</td>
<td>n.d.</td>
<td>n.d.</td>
</tr>
<tr>
<td>Total of Financial</td>
<td>1,616,994</td>
<td>4,369,917</td>
<td>4,414,248</td>
<td>569,183</td>
</tr>
</tbody>
</table>

*Source: Futures Industry Association, Washington, D.C.

### Table L.16  Exchange Trading Volume (Contract Units)* — FINEX Division

<table>
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</thead>
<tbody>
<tr>
<td>Futures</td>
<td>718,713</td>
<td>650,046</td>
<td>760,379</td>
<td>798,389</td>
</tr>
<tr>
<td>Options</td>
<td>42,268</td>
<td>67,603</td>
<td>n.d.</td>
<td>n.d.</td>
</tr>
<tr>
<td>Total of Financial</td>
<td>760,981</td>
<td>717,649</td>
<td>760,379</td>
<td>798,389</td>
</tr>
</tbody>
</table>

*Source: Futures Industry Association, Washington, D.C.*