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***BM&F - Bolsa de Mercadorias e Futuros -  
Commodities & Futures Exchange- and  
Brazilian Futures Market***

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## **INTRODUCTION**

*"When Wall Street sneezes, the rest of the world catches a cold. When Hong Kong's market shakes in its boots, American pension funds and mutual funds become an earthquake zone as well" (Stephan-Gotz Richter) and so do the rest of the world.*

During some black days last October, television channels followed indexes in the major financial markets of the world, twenty-hours a day. Specialists tried to calm investors but hinting a bit of their own fear of tragedy. When the NYSE market started to react, coincidence or not, soon after Mr. Clinton words, the whole world breathed more alleviated.

The crisis began to diminish, but it has not finished yet, as the problems have not been thoroughly solved. Economic foresight for the near following years had changed significantly in just a few days.

Brazilian monetary authorities had tough hours trying to defend our currency from speculator attacks. International Federal reserves volume became popular words from these days on. Interest rates were doubled overnight. Soon afterwards, a new packet of measures was released in order to reduce the public debt, a major vulnerability of our economy. As a result, they won credibility and some more time to solve ultimate economic weaknesses.

Never before, did people feel so strongly that all countries were part of a single planet economy. That their lifetime savings could be harmed by a little distant country's economic policy. That an economic epidemic disease could reach their household, via global financial markets.

In the proceeding days, people remembered the 1987 stock market crash by its ten-year-old birthday. But they did not worry, because the causes of it were not present in the economy: an extraordinarily overvalued stock market and increasing interest rates.

The turmoil, however, had begun in July in the Asian countries and the cause was soon revealed after the black days. Opening markets had been the "one-size-fits-all-solution" offered to developing countries, that led them to a export-driven growth and attracted foreign investment inflow, which their economies could not well absorb. As well observed in the Asian – 4, Thailand, Malaysia, Indonesia and Philippines, a lack of transparency in financial dealing, a failure of regulation, disinterested government supervision of markets and a "get-filthy-rich-quick" mentality within the national elite.

People recommenced then to discuss capital mobility around the world and the clock, through financial markets. As stock markets have, an apparently more noble function in directly financing production, the main target has been the derivatives market. Everything that is not well known may be misunderstood and easily, suffer from prejudice.

In this sense, this paper's objective is to get in touch with such market whose importance we do not fully realize, talk about Brazilian situation and more specifically about the Bolsa de Mercadorias & Futuros – BM&F 's role in our economy.

It begins with a brief history of futures market and then it tells about BM&F historical. It discusses financial market, derivatives negotiated in BM&F, exchanges functions as price discovery and clearing settlements,

exchange globalization process including foreign competition and market popularization.

It does not intend to give a technical approach to derivative products, operations and strategies, nor discuss about controlling the market.

## **FUTURES MARKET BRIEF HISTORY**

The negotiation of prices for the future delivery of products appeared many centuries ago, as a natural consequence of commercialization of crops and product seasonality. The buyers visited the producers, they negotiated the product delivery for the crops, with guaranteed prices or not, which was advantageous for both parties. The agreements were private and didn't follow any pre-established pattern. The places determined for trading of products with ready delivery and for the closing of contracts for future delivery reverts prior to Ancient Greek and Roman Empires.

In the Middle Age, the feudal lords initially repressed future negotiations due to total control of production and commercialization. As a consequence of gradual ascension of the bourgeoisie, fairs were organized, announced in advance and was still controlled by feudal lords, who began to realize their advantages. England became a great commercialization center, establishing location for trade or fairs. It became the largest market of that time, serving as a connection between several countries and expanding the use of contracts for future delivery.

With the expansion of the maritime trade and its great discoveries, elaborated rules to regulate the market became indispensable. In England, it was *the Law Merchant* which determined minimum norms such as: receipts and contracts, quality control, patterns of conduct and delivery modalities and storage of products. This framework still acts as a foundation for the futures market exchanges .

The Western world development, the communications improvement and the world population and production growth demanded improvement and specialization of free fairs. These were regulated by interest groups representing the parties involved in the negotiations, increasing the safety of the system.

In the East, a similar process occurred in the agricultural product negotiation, with fixed fair places and with norms adapted to the business. In Japan, the first organized exchange was created, in the beginning of the century XVIII, the Dojima Rice Market. Due to constant need of resources for the production of rice, basic food of feudal Japan, the rural proprietors and farmers instituted the *scriptural rice*. The receipts of rice were legally recognized in 1730 and they

involved a operation standardization, specifying payment, period, amount and quality for future delivery. The receipts were negotiated thoroughly and accepted as currency. Other markets of edible oils, cotton and precious gems developed but to a lesser extent than the rice market.

The first center of commodities negotiation in Europe appeared in Antwerp, in the XVI century, yet future markets had their beginning in Liverpool in 1878 and later in Havre 1882. Liverpool contracts were known as *to arrive* and were negotiated by many years.

In the United States, markets were developed for the negotiation of spot operations in New York and other cities. Until the beginning of XIX century, the physical market had the greatest negotiation volume. That time was marked by a series of problems with grains. During the harvests, there were product oversupply and prices were so low that even cover transport costs. During the period of time between harvests, prices were very high but there were no offers of goods. Merchants - or brokers, as they are known today - and farmers began to negotiate larger and larger parts of their future crops.

Marked by the transformation of Chicago into a city, in the year 1837, the need was felt to create an institution that aided the grain commercialization, one of the largest of the country. Thus, in 1848, a group of 82 merchants founded the Chicago Board of Trade - CBOT, that till today is the largest futures exchange in the world. At that time, CBOT negotiated contracts for physical delivery as well as for future delivery, but the futures contracts were insignificant.

In 1871, when Chicago went up in flames, all the registrations were destroyed. In spite of that, it is assumed that future contracts were negotiated from middle of the 1860's.

Due to the fast success of Chicago Board of Trade, several other exchanges appeared in the whole North America, transforming the United States into the most developed futures industry in the world.

Nowadays, besides the American commodities exchanges, there are about fifty others around the world, most of them founded during the 1980's, and among them, an detachable Brazilian futures exchange: BM&F.

## **BM&F – BOLSA DE MERCADORIAS & FUTUROS**

Exporters, businessmen and agriculturists founded *Bolsa de Mercadorias de São Paulo* – BMSP, on October 26, 1917. In the beginning, they concentrated their activities fundamentally on

production incentive, goods commercialization and product classification. One year later, BMSP started futures operation with cotton, known, at that time, as *white gold* and this became their main activity.

Being the first to launch forward operations, it had reached, as years went by, a tradition in trading agricultural commodities, especially coffee, live cattle and cotton. Only in the beginning of the 80's, they instituted a futures contract based in a financial asset, referred to gold.

In 1979, the *Bolsa de Valores de São Paulo* – BOVESPA and *Bolsa de Valores do Rio de Janeiro* – BVRJ introduced the negotiation of individual stock futures market, non-existent nowadays. Later, they started a stock option market.

On November 03<sup>rd</sup>, 1983, it was constituted, in Rio de Janeiro, the *Bolsa Brasileira de Futuros* – BBF, being the result of investments of their partner-patronizer BVRJ.

The *Bolsa Mercantil & de Futuros* – BM&F was established in July 1985 and their trading sessions commenced on January 31<sup>st</sup>, 1986. Shortly afterwards, they became the greatest options and futures negotiation center in Latin America, attaining an enviable position among the worldwide top ranking exchanges, trading commodities, futures, options, forward and spot contract on stock index, gold, interest rates and exchange rates.

On May 9<sup>th</sup>, 1991, there was a merger between BMSP and BM&F, gathering the tradition of the former and the dynamism of the latter, thus creating the *Bolsa de Mercadorias & Futuros*, keeping the abbreviation BM&F. Their objective was to develop futures market on financial assets, agricultural commodities and others.

In 1996, BM&F reached the fourth position in contract negotiation (135 million contracts and 4,7 trillion dollars) in the FIA- Futures Industry Association's ranking of the futures exchanges, although the best position achieved was the third position in 1995. Accordingly to a DLJ – Donaldson, Lufkin & Jenrette Securities Corporation's study, they reach the biggest growth rate in the world, during the period 1994-1995.

A new fusion occurred on June 30<sup>th</sup>, 1997, between BM&F and BBF, consolidating BM&F as the main derivative negotiation center of Mercosul.

BM&F is a non-profit association with an honorary member, BOVESPA, and commodities brokerage houses, clearing members,

local traders, agricultural commodities brokerage houses, agricultural commodities floor traders, cotton traders, common members.

They are directed by a Board of Governors elected by commodities brokerage houses, clearing members, common members and the honorary member. BM&F's administration is divided into three main powers: the General Meeting of Members, the Board of Governors and the Chief Executive Officer.

The highest body is the General Meeting of members and it is held twice a year. The Board of Governors is composed of thirteen full members and four alternate members. The Chief Executive Officer is nominated by the Board.

BM&F offer a wide variety of contracts using underlying commodities and financial assets, as: gold, IBOVESPA stock index, exchange rates, interest rates, sovereign debt instruments, coffee, soybean, sugar, cotton, corn and live cattle. Contracts may be spot, forward, futures, options, swaps and their combined or synthetic derivatives. Not all commodities and assets are traded in all alternatives.

Trading at BM&F can be on the floor or through an electronic system for registering transactions, in which contracts can have or not the Exchange's guarantee.

BM&F's clearing was the first in the world to achieve an ISO 9002 Quality Certificate, in 1996. This clearing department has an unusual control of the ultimate investor, which allows a tight leverage credit supervision.

Futures market development in the country has been always a BM&F's main concern, which led to several operational agreements between them and other states commodities exchanges.

Besides trading necessary conditions as price-reporting network, trade registration systems, operation settlement and trading floor, BM&F offer other services as gold custody, coffee and cotton grading, gold terminal operations, a National System for the Commercialization of Agricultural Commodities – SNCA, extensive training program to market professionals, public futures culture spreading. They also support programs to sports, culture and art.

Throughout their existence, BM&F has been of great importance for economic institutions, as they have offered derivatives that enabled them to manage risks resulting from prevailing instability.

Despite the success of the most recent stabilization plan, Brazil is still far from sound equilibrium and sustainable growth. Many structural changes are still needed in the economy. In this context, prices, interest rates and other economic indexes will continue exhibiting considerable volatility for an extended period of time.

Because of the difficult process that Brazilian economy is still going through, BM&F has been an indispensable instrument in the quest for stabilization. They help economic agents to carry out business, as they can provide protection against risks of an environment where the main macroeconomic variables are highly volatile.

## **DERIVATIVES MARKET**

Globalization process has been accompanied by increasing volatility in many commodity and financial markets. As a result, some business risks have grown in importance and a new generation of sophisticated risk management techniques and instruments has been developed. Management of these financial and commodity market risks is centered on the use of a new breed of financial instruments called derivatives, whose use has become a driving force in international business. The Economy Nobel Prize given to Merton Miller and Myron Scholes reinforce to us, laymen, the derivatives importance.

CTFC's Glossary define derivative as: *"A financial instrument, traded on or off an exchange, the price of which is directly dependent upon (i.e., "derived from") the value of one or more underlying securities, equity indices, debt instruments, commodities, other derivative instruments, or any agreed upon pricing index or arrangement (e.g., the movement over time of the Consumer Price Index or freight rates). Derivatives involve the trading of rights or obligations based on the underlying product, but do not directly transfer property. They are used to hedge risk or to exchange a floating rate of return for fixed rate of return".* As observed, there is a large range of possible occurrences over which one can construct a derivative.

Derivative contracts are mechanisms of risk transfer and protection against risk. They permit to financial institutions an easier management of their client portfolios, conciliating less risk with greater profitability.

There are four types of risk: Operational risks (infra-structural, personnel, organizational); Credit risks (default – country risk, political risk, lack of payment); Legal risk (lack of legal sustainability) and Market risk ( stock, commodities, interest, exchange)

A marked increase of uncertainty in the financial markets, by the middle of the 70's, directed derivative contracts to exchange rate, interest rate



and indexes in general. With the development of the market, other derivatives as *swaps, caps, floors, collars, flexible options etc* appeared in the 80's and 90's.

Many of new product developments were generated by fund demands. Always looking for return maximization and risk minimization. Since these new products are popping around all the time, it also increases demand for more and more sophisticated clearing mechanisms to guarantee contract settlements. In futures contracts, a clearing becomes the buyer to each seller and seller to each buyer, and assumes responsibility for protecting buyers and sellers from financial loss by assuring performance on each contract.

Consequently, derivatives developed *over-the-counter*, outside the exchanges, are not so popular. Although they have lower transaction costs and lower or no margin deposit, they have also the disadvantages of potential credit risk and lack of contract liquidity. Yet they can be developed more quickly, as they're more flexible and create new products to attend some commodities specific necessities, allowing the hedge of correlated risks.

Without the evolution of contract specifications, these will serve less and less to the hedgers. So that, exchanges have to keep the pace and introduce new products to attend the demand for market safety and liquidity.

There will always be a friction between what would make the system more flexible to attend all kind of demands and what would keep system safety in order to maintain its integrity and fairness.

BM&F have struggled to follow the new trends and, at the same time, innovate in the market. As Brazilians have experience with a very mutable economic environment, BM&F sometimes found out creative solutions for problems that still torments other exchanges abroad.

When market goes down, people usually accuse big speculators. In fact, big positions can increase the magnitude of the movement but they do not impede people of changing positions during the trajectory. If operators are not allowed to have big positions, market won't be liquid or viable. Market efficiency relies on liquidity. Only pure speculators can be harmed with big oscillations; hedgers, on the contrary, will be benefited with them. Besides, many CFTC – Commodities Trading Futures Commission investigations has proven that big commodities funds, for instance, are not responsible for commodities price big falls as alleged.

Derivatives can be used for hedge (diminishing risks), as well as for leverage (increasing risks). Some reports have shown that hedge funds can borrow 50 to 100 times the value of its patrimony, in order to increase the size of its position. They allege that leverage must be always related to risk exposure before any considerations. For example, if one uses its patrimony in the buyer side and a loan for the seller side, one will be much less exposed to risk than if one had only invested its patrimony in shares.

The portfolio assets can be presented as margin guarantee, which facilitates operations, reducing its costs. However, if the market goes down, the fund will have double losses, which mean a major portfolio risk.

Some investment funds do not operate sophisticated derivatives because they consider them too risky. Some allege difficulties in its performance evaluation. Some do not really know how operate them to administrate risk and reduce volatility. Big and medium size funds, however, are much more inclined to use the most sophisticated derivatives.

Certain synthetic derivatives are cheaper, less risky although potentially less profitable than its equivalent conventional ones. That's the case of *flexible option with barriers*, for instance, whose effects start or cease with the occurrence of a predetermined fact. While conventional option has an infinite *payout*, but the risk is much greater.

The most specialized funds that maintain a modern risk administration use correlation, volatility and profitability studies in several markets, in many countries, whose objective is to find the ideal recipe for the binomial risk-return.

The controversy about derivative markets in Brazil is due to our high inflation recent past and general indexation, when Brazilians tried to guarantee their assets value through such indexation, leading to a lack of long run visibility habits.

To worsen things, developing country firms lack the creditworthiness needed for longer maturity instruments, in the perception of global financial centers.

Derivative products markets are credit sensitive and as most long term derivative securities involve credit risk, direct access generally is limited to companies having at least investment grade credit ratings. Access to some instruments may still be available to less creditworthy companies, but this access is often limited to short-term instruments or constrained by requirements that the company post collateral or some other form of

credit enhancement which may make the cost of the instrument prohibitive.

In several markets, it has been observed a concentration trend, instead of pulverization, despite hedge practice increase and the afflux of millions of new investors who pulverized share ownership. For instance, big multinational coffee and soybean processors, big financial groups and big bank groups fusions have increased their influence area. Then, one could observe that the best surveillance on oligopolies would be the Government's.

However, the axis of financial flow that were controlled or highly dependent on Government, budgets and multilateral credit organizations (IMF- International Monetary Fund, IDB- International Development Bank, World Bank etc), now depend on decentralized private control and ownership accounts: pension funds, investment funds, security assets, companies, huge fortunes, middle class, small individual savors. It is a process of diversification in decision making and a direct consequence is an intense search for professional administrators and risk protection techniques.

Oligopolies mean absolute power concentration or centralization, but this is not possible with such client mobility and market multiple means of access. In our new scenario, even big banks depend on market credibility, profitable performance and quality of services. They lost their clients' fidelity as, nowadays, everybody follows all funds performance through newspapers. Size, tradition don't matter as much as in the past and competition is directed by profitability fund rankings on newspapers.

The Protection axis for market risk is more and more the market itself.

## **AGRICULTURAL COMMODITIES**

Brazilian agricultural commodities had their prices quoted in dollars, in New York (*coffee, cocoa, sugar, and cotton*), Chicago (*soybean*), Paris (*sugar*) and Liverpool (*cotton*). Still now, internal prices are staked by international market due to exportation liaisons which leads big national farm producers and big aliment processors to Chicago exchanges where liquidity is greater.

Nowadays, BM&F operate *coffee, live cattle, feeder cattle, soybean, sugar, corn* and *cotton* contracts, in their commodities area. Agribusiness sector culture changes towards the BM&F contracts has had a slow rhythm, and much has to be done about it. Agronomy study centers has helped in diffusing the use of hedge contracts as well as, of crop insurance.

Live cattle and feeder cattle future contract deliveries can be done only in BM&F's installations, in Araçatuba-SP, a corral with modern scales. As other agricultural commodity delivery, their procedures are so rigorous that does not stimulate any physical deliveries.

The BM&F *live cattle*, *cotton* and *coffee* future contract settlement prices are determined through ESALQ- Escola Superior de Agricultura Luiz Queirós indexes, the corn, by FGV-Fundação Getúlio Vargas and the soybean, by FIPE-Fundação Instituto de Pesquisas Econômicas, linked to USP-Universidade de São Paulo, all academic institutions. Brazilian prices for Brazilian commodities.

These contracts are automatically settled by the difference between future and spot price. In that way, liquidity has increased, as speculators are not interested in physical delivery. But still lack low interest rate, resource availability to producers and steady economic stability.

Current world trend leaded by U.S. and Europe has been to reduce subsidies to agricultural production. This altered the whole futures market structure for grains, increasing its volatility. Producers must transfer their financial risks through futures exchanges, which must improve considerably the development in futures exchanges commodity area. In the same way, banks, in order to liberate loans to producers, have to learn more about hedging and insurance systems.

Agricultural credit markets are not directly linked to financial markets. As consequence, rural borrowers face a situation of potentially more volatile interest rates. Thus they have a strong incentive to administrate their interest rate risk in a more efficient way.

More and more, producers are combining crop insurance and hedging strategies, through instruments like *crop yield options* or *catastrophe insurance options*. Which means to sell forward a previous entirely insured crop. During the 1993's flood, Middle West producers received the projected total income even though their properties were under water and they hadn't harvested one single bushel.

BM&F postulate the end of agricultural subsidies and its substitution for utilization of options, futures and its synthetic derivatives, involving interest rates. They believe that by acquiring this kind of protection, which, naturally, has its cost, producers would be protected and wouldn't lose risk opportunities. They would transfer their risk to financial institutions that, in their turn, would be remunerated to incur this risk.

With no subsidies and no fund for subsidies, there wouldn't be political malversation of public money. Risks would not be transferred

indiscriminately to society, for interested agents, financial institutions and speculators, would be competing for this risk.

Futures contracts allow the producer to fix his income and his costs, ensuring his profit margin at the end of production process. Processor industries, by their turn, would pre-determinate their costs, protecting themselves of abrupt rises of commodities prices.

In the history of agricultural commodities, frustrated economic plans, price freezing and contractual disrupt have brought disastrous effects on Brazilian financial market credibility. Four years only of Real Plan stability have not been enough to recuperate them throughout. The worst event was the Collor Plan II contractual disrupts, when Government obliged a settlement, by a Plan previous day price, of all futures contracts positions. Attempts of freezing the prices were inefficient and provoked distortions in the trading, as it happened in the Cruzado Plan.

In a minimal price policy, the Government authorities commit themselves to buy, once asked by the producer, his entire crop by a beforehand fixed price. It is like an option that the producer has right to sell, that can be exerted or not. But he had paid nothing for this right. The producer will sell to the government only if the market price is lower than the fixed price.

With such a policy, the Government try to stabilize prices by storing crops. However, the market would automatically store in case of a high future price forecast and would sell in a low future price, in the following moment, equilibrating quicker the market price, by following the economical agent decision changes.

Moreover, there are the high costs of storage and losses in agricultural product store until their commercialization .The government is spending an expressive part of its budget revenue in buying, storing and trading these products.

The government participation in the market, as the last risk taker, inhibits the commodities market development. Besides, if the government wants to, there will always be the possibility of influence market by participating through preexisting mechanisms of options and futures. Costs would be immeasurably smaller and results would be much more efficient. The price exercised could be fixed by CMN – Conselho Monetário Nacional in the launching of several authorized options series.

There always be price oscillation with or without market, especially those of agricultural products that reflect harvest and between-harvests situations. Futures market stakes future supply and future demand

situations, influences in the decisions of the physical market participants, reduces the seasonal factor effects on agricultural commodities, regulates spot market and transfers risk administration costs to speculators.

## **GOLD**

Gold glorious period started when the Brazilian Government realized that it was better having it used in a financial market, than having it drained through the borders through smuggling. For instance, Uruguay exported 20 tons of gold without producing one single ounce. Nowadays, BM&F monitor gold market, from foundry to custody banks. However, Brazilian gold market followed global trend: with more specific hedge mechanisms development, real asset negotiations lost part of their attractiveness. But whether gold operation volume increase, BM&F has an efficient custody system and a well structured contract.

## **SOVEREIGN DEBT INSTRUMENTS**

Besides gold, other contracts with a strong liaison with the international market are external debts bond derivative. BM&F have three types of these contracts: C-Bond - Front-loaded Interest Reduction with Capitalization Bond (20years), EI – Eligible Interest Bond (12years) and FRB – Floating Rate Bond (12years) on the Argentina external debt. Among them, only the C-Bond has international market liquidity.

C-Bond is part of six Brazilian external debt bond called Brady Bonds and can be used as privatization currency. The Brady Agreement exchanged old debt for these new bonuses.

In 1996, BM&F launched C-Bond future contract that negotiates the bond price volatility for a determined period. The settlement price is determined by BM&F, based in quotations given by named institutions (*market makers*) in the external debt spot market as well as in the futures one and updated daily.

## **EXCHANGE RATE**

The openness of the economies to external trade and a faster international capital flow produced an increasing number of instruments offered to cover exchange risk, from the simplest mechanisms as exchange rate future contract in one determined currency to swaps of currencies, options and indexes related to different country assets.

BM&F has futures contracts on Commercial and Floating exchange rates. Both have the same negotiation features, differing only in the

settlement exchange rate.

Search for hedge is a characteristic of this market, which also depend on general and global belief that Brazilian will continue stable and that exchange rate won't have an automatic monetary adjustment as in the recent past. Futures markets are allies for healthy economic countries' currency, as they give an alternative for monetary adjustment inertia, which self-feed contractually inflation, creating irrational expectations. While, in the futures market, people manage risk through profit predictable margins.

Accordingly, BM&F's exchange rate future contract took off not in the high inflation years with constant *cruzeiro* devaluation, but more recently in the *real* time, with stability, end of indexation, and better degree of visibility in the economy. Which means more stability, more foresight, bigger search for protection against risks.

Even among the strong economies almost without inflation, very low interest rates and strong currencies, there isn't an exchange haven with high margins of foresight. Small floats can have a devastating effect in big numbers, as in foreign trade and cross-border financial flows.

Chicago Mercantile Exchange has the most active exchange rate futures market in the world. As they have absorbed the Mexican exchange rate futures market to their floor, they intend to do the same with the Brazilian one. Nowadays, BM&F negotiate 12billion reais a day in exchange rate contracts and keep the market nearer to whom needs it.

Having Brazilian assets quotation in foreign exchange is stimulating and positive, as they permit arbitrage operations through simultaneous purchases and sales in two different markets. However if our exchanges do not create expressive volumes for their products, they will be swallowed up by international liquidity centers

## **INTEREST RATES**

*CDI – Certificado de Depósito Interbancário's* (Inter-bank Deposit Certificate) interest rates represent money cost in latching onto and application among financial institutions. Due to the great representative money spin in the inter-bank system, CDIs signals the level of interest rates practiced in the whole economy. Naturally, they are influenced by the interest rates practiced in the Public Debt Bond launchings by the Brazilian Central Bank.

The biggest futures interest rate contract negotiation volume is concentrated on *CDI-over* or simply, *DI-over*, whose rate average is daily calculated by CETIP- *Central de Custódia e Liquidação*

*Financeira de Títulos*. This high volume shows necessity of the institutions to protect their portfolios against interest rate volatility.

With low inflation rate, internal interest rates are more frequently compared with external interest rates, especially with U.S. Treasury Bond and Bills and with Eurodollars loans. *Exchange coupon* represents the internal interest rate, free of exchange variation, which means the necessary rentability rate to attract foreign capital. The future contract on exchange coupon was created to attend those who takes external situation as stake.

## **STOCK INDEX**

IBOVESPA is the most well known stock index in Brazil, for it is the biggest stock exchange index, the Bolsa de Valores de São Paulo's. It has been calculated uninterruptedly for 25 years. It is reevaluated each four months, based in the last twelve months stocks performance. It indicate the stocks average profitability.

Futures contract on Ibovespa is largely used to hedge stock portfolios, once adjusted by *beta* factor. Volatility study is used by market operators in order to protect portfolios, through *Beta* use, for example. *Beta* is a statistical method known as regression analysis which measure past volatility of shares or portfolios compared to the market index. It is the price relative elasticity indicator of portfolio shares compared to a upsizing or downsizing of the index. If *beta* equals 1, it means that share prices oscillate in the same magnitude of the index. If it is bigger, the shares move more than the index and if it is smaller, they move less than the index. *Beta* utilization is restricted because it is an historical price relationship. It is a systematic method to find out how many futures contracts are necessary to an effective administration of price volatility in a portfolio.

Investors use the future market to ensure a defined rentability through the difference between the physical index and the future index.

## **OPTIONS**

Options are contracts in which a person grant to another the right of purchasing (*call option*) or selling (*put option*) certain asset, in a predetermined term by a pre-fixed price, through the receipt of a cash *premium*. The greater the volatility of the underlying asset price, the higher the *premium* value required.

BM&F offers option contracts on gold spot, commercial exchange rate, floating exchange rate, future on inter-bank deposit rate, average inter-



bank deposit rate, future on Ibovespa stock index, coffee/exchange rate, future live cattle/exchange rate etc.

Option negotiated in the exchanges has no more the bilateral feature. To close an open position, the investor just assume an opposite position to the previous one. Which means to sell an option of the same series (same specifications) of that one who firstly has bought and *vice-versa*. It can have, as the futures contracts, a physical or financial settlement, as the result of one is the same of the another. Two option types are commonly used: *European option* – can be only exercised on the due date and *American option*– can be exercised through the option entire term until the due date.

*Flexible options* are negotiated in the exchanges or *over-the-counter*. They do not have a rigid standard specifications. As a consequence, they do have bilateral counterparts. Flexible option negotiated at BM&F, follow minimum basic parameters. There are flexible options on exchange rate and Ibovespa stock index. They are not negotiated in the *floor* but they are registered through the BM&F electronic system and can be with or without the exchange guarantee.

## **SWAPS**

National Futures Association's *swap* definition says: "*In general, the exchange of one asset or liability for a similar asset or liability for the purpose of lengthening or shortening maturities, or raising or lowering coupon rates, to maximize revenue or minimize financing costs.*"

Commodity Trading Futures Commission's definition continue with: "*...In securities, this may entail selling one issue and buying another in foreign currency, it may entail buying a currency on the spot market and simultaneously selling it forward. Swaps may also involve exchange income flows; for example, exchanging the fixed rate coupon stream of a bond for a variable rate payment stream, or vice versa, while not swapping the principal component of the bond*"

Simplifying, *swap* is to exchange funds that one can acquire in an easier and cheaper way in the market by funds that one really needs, but that are more difficult and more expensive for him to acquire and that is easier and cheaper for someone else who is willing to exchange.

"*Swaption is an option to enter into a swap - i.e., the right, but not the obligation, to enter into a specified type of swap at a specified future date.*" (CTFC)

The called Rocket scientists, who ran away from the military weapon industry unemployment and entered into the financial market, imagined many of these derivative products .

Swaps were created to reduce liability costs, increase assets rentability and to protect against adverse exchange or interest rate fluctuations. Swaps allow the exchange of interest rate of different nature ( fixed by variable), or the exchange of futures in different currencies, for instance.

## **PRICE DISCOVERY**

Futures market price is public, it is printed in newspapers, contributing to avoid distortions provoked by uncertainty and middlemen actions. Speculator action is limited and he will choose acting in an organized market, as a counterpart who assumes other's risks.

Prices must reflect accurately relative costs of production and relative consumption utilities. Futures market provide a pricing mechanism to bring them into alignment. Futures prices reflect current expectations about what supply and demand for a commodity will be at various points in the future. These public price expectations influence, by their turn, economical agents decisions, as storage, plantation, sale and acquisition. They affect both production and consumption and have the effect of smoothing the supply and demand for a commodity on time.

The trader fixes future price, adds local basis in the hedge closure to obtain the probable local future price. Producers and other market participants take their decisions based on this market estimation. The discovery of the real price which will be used, occurs firstly in futures market. Cash price offers will be formed through quotation of futures market closure price, deducing the basis. However, a producers resistance to a much low price offer and decisions about storage levels will influence futures prices. Which means both markets react one to another.

Future price is a prevision of cash/spot price at the future contract due date. There is a tendency in physical market to follow the futures one. If there isn't convergence between these two markets, the expected *basis* (difference between cash and futures prices) won't be accomplished and hedge won't be concluded.

Equality between future price and spot price expectation at the due date is only one of the possible results, being the general case that small differences for more or for less rest after the market closure.

Futures prices may or may not be good estimates of expected future spot price. The *expectation hypothesis* says they are unbiased estimates so that there is no risk premium; whereas the theories of *normal backwardation* and *normal contango* suggest they are biased estimates, though in opposite direction. Normal contango theory says futures price would be higher than the cash one expected by the hedgers, in order to

reward speculators with the excess and as contract due date approaches, the premium diminishes in size. This theory implies that hedgers are *long* (buyers) Normal backwardation theory, on the contrary, affirms that future price would be lower than the expected cash one, to attract speculators through the difference and as contract due date approaches, the futures prices would rise. In this case, hedgers would be *short* (sellers).

Clearly, there is a relationship between the futures market settlement and its commodity spot price, formalized by its *basis*. Consequently, the hedger must know the commodity *basis* behavior, especially the *cost-of-carry* (costs associated with purchasing and carrying/holding a commodity for a specified period of time).

Significant differences between futures and cash price usually tend to disappear near the due date through *arbitrages* (to buy in the cash market and sell in the future market, if the future price is higher than the spot or vice-versa, in the opposite case). The physical delivery possibility also reinforces the convergence between the two markets. Besides, such difference can be the insurance premium that hedgers are willing to pay to be free of the uncertainty.

Another consideration is that, with the advent of futures market, the speed in which information start to compose commodity prices, has increased. Though, supply potential of response, especially in agricultural commodity case, can turn future expectation into a misfire.

For example, when a new information leads to a smaller supply expectation, future price tends to go up, what stimulates storage to sell for a higher price in the future. Higher storage level, which means a bigger future supply expectation, will lead futures price quotations down. So that, what initially started with a price augmentation, was followed by a reduction, reaching equilibrium again.

This is not the case that market has overestimated information's intensity, but planting and storage decisions taken based on a higher price expectation cause new price expectations.

However, one cannot be sure about what will be the producers' reaction. Some of them or most can choose to pay their loan debts instead of increasing production. Or investing in equipment, or construct new installations, or expand their range of activities etc It may depend on interest rate or on other kind of investment profitability. Besides, there are some commodities whose production cannot be quickly increased. Many factors are involved in producers' decisions, which will beget errors in future price previsions. Which means, although futures prices

are good references about what will happen to prices, one should not expect that these provisions always come true.

Both markets react to the same information of supply and demand, only differing in the period of time referred. Near the due date, prices tend to approximate one another, because of either real accuracy of the price forecast or through arbitrage, which brings equilibrium between the market's supply and demand prices.

The market that registers quicker the new information impact will react before the other. Empirical observation has demonstrated that future price reacts more rapid than cash price. Maybe it happens because of the psychological factor embedded: uncertainty about the future. But as quickly it comes to one direction, it changes towards the opposite one, if necessary.

Sometimes physical market participants do not operate with same frequency, nor have the same access to information that futures market participants do. Researches in U.S. have shown that for many commodities future market is more efficient than physical market.

BM&F have adopted, for many commodities, the cash price at contract's due date as futures contract settlement price. This eliminates physical delivery, its costs and arbitrage. Moreover, it also perfects these commodities basis. Researches in U.S. have demonstrated that basis is less variable in futures market with this kind of settlement. Cash price fixation also allows alignment, at the due date, of options on futures and futures contracts. The cash price used to settle futures contracts must reflect correctly competition market conditions, in order to win necessary credibility.

Price discovery is one of the most important roles of futures exchanges; the other one is to honor buyers and sellers commitments, through their clearings.

## **CLEARINGS**

Clearings and exchange staffs authority have a clear divisor between the owners club and the discipline and inspection main in charge. Otherwise, the exchange can turn out corrupt and vulnerable to internal and external pressure. As clearings create credit with very high leverage, credit creates risks and as risks are overflowing the frontiers, regulatory organism surveillance tends to increase.

There is a big discussion about the relationship between clearings, central banks and the rest of the financial system, as clearings are influencing more and more its countries economies.

Each twenty-four hours, BM&F's clearing department settles billion of dollars and reopen its doors in next morning with all accounts squared. The BM&F clearing's year turn surmounts 4,7 trillion dollars, six times the GDP. Its daily movement is more than 20 billion dollars reaching 50 billions in record days.

The financial sector is in the vanguard of the users of the technological most advanced achievements, what is easily explained by its high level of dependence on services provided through computer nets and data transmission.

Brazilian brokers are beginning in an area that their foreign competitors have already been established. They need a fast recycling in the E-business that is spreading all around the world. There are half a million of high-income persons in the world who send selling or buying orders to exchanges, through their broker intranet access.

Because of operators automated desks from broker houses or from institutional investors and also the entry of new investors hordes armed with remote computers, NYSE – New York Stock Exchange created the *circuit-breakers*. They are programs, which prevent unrestrained/ungovernable rises and drops.

SEC – Security Exchange Commission estimate, for the year 2000, is a number of 58 million shareholders will frequent U.S. markets, which will negotiate 200 billion of shares a year. The new public will have an unavoidable impact on the exchanges and its computer systems. To face this challenge, CBOT – Chicago Board of Trading has developed its Project A system, NYME- New York Mercantile Exchange, Access system and NYSE, Super Dot system.

E-business may be a future competitor to traditional broker or bank advisor, since risk analysis and operation simulations, as well as educative courses about market operations, start to appear freely available in the Web. Nowadays, 2 to 3 billion dollars are moved through E-business, and must reach 100 billions before the end of this century, in the opinion of some forecasters. IBM announced being engaged with 10 thousand projects in this area through subsidiaries and partnerships.

One must consider that the faster the orders circulation, the greater the risks will be. They'll cross several settlement systems, national jurisdiction areas, custody and clearings. Therefore, the quicker the *cybertrade*, the safer and the more transparent must be the systems of price discovery, contractual mechanisms and electronic orders settlements.

Derivatives world requires more complex and sophisticated settlement instruments than traditional stock market, as money volume are much higher and operations much more complexes. We will also need a strong synergy among E-business negotiation settlement systems, derivative clearings and offset systems.

## **EXCHANGES GLOBALIZATION**

In this end of century and beginning of a new millenium, we are witnessing the end of the distance, especially for the knowledge transmission.

Nowadays, the traders operate in several exchanges around the world and one day, the U.S. corn crop value may be decided in London, Paris or Tokyo; as many Brazilian commodities have their price determined at CBOT – Chicago Board of Trading.

These movements have increased the concurrence among the exchanges and BM&F has endured much competition to keep Brazilian savings inside the country. Only the most qualified firms will survive to the unforeseeable. In this context, it will prevail exchanges with economy of scale and with clearing systems capable to answer to the globalization challenges.

CBOT and Liffe – London International Futures and Options Exchange are negotiating some contract together. The first will negotiate Deutsch Government Bond options and futures contracts and the second, U.S. Treasure Bond futures and options contracts. This permits having position in the same contracts in the two exchanges. At the end of the day, each clearing transfer their position to the other.

CME- Chicago Mercantile Exchange has already explored a similar link with Asian markets. Other exchanges are extending connections, looking for negotiation system standards as NYSE- New York Stock Exchange, NASDAQ- National Association of Security Dealers Automated Quotations, Paris, London, Frankfurt, Zurich, Brussels, Montreal and Tokyo exchanges.

CME and MATIF – Marché a Terme International de France share the use of Globex Trading System. CBOE– Chicago Board Options Exchange and Amex– American Stock Exchange share the same clearing, OCC- Options Clearing Corporation. These experiences show a trend of bigger cooperation among specialized markets, specially to take advantage of daytime differences.

As we move towards a global market, we begin to demand new contracts for the global trade.

In 1996, the first MOU- Memorandum of Understanding was signed by exchanges in order to create a world clearing intercommunication system. Its objective is to reduce risk margins and eventually, avert emergency cross-border situations as Barings case.

Later, the G-10 Central Banks diffused the Parkinson (FRB) report about Clearings Agreement on Derivative negotiation. It focuses the globalization and its consequences in trade spin speed commanded by multiple 24-hour settlement systems (clearings) around the world. It recommends stress tests (extreme price variations) to limit an individual exposure, intraday operations closer surveillance and real time settlement, eliminating general default cases. It also want to measure frequently and systematically the clearing resource size and liquidity. The idea is to impede that a country infection became a general epidemic in the world financial system.

CTFC is an active agent in this process, they sponsored a seventeen participant country conference to discuss basic principles of regulation and created an Office of International Affairs specially dedicated to regulation harmonization.

Mercosul internal zone trade growth soon will affect exchange rate, interest rate, stock and commodity markets. Consequently, BM&F has endeavored in the creation of a Mercosul Exchange. As trade and financial flows grow, the risks grow together The better protection will be liquidity in the regional markets and domestic long run saving growth. After all, some analysts are already defending the creation of an European clearing for EEC.

## **FOREIGN COMPETITION**

The deeper the Brazilian economy internationalization, the more fierce will be the search of exchange cover mechanism by private firms in the country or abroad. Then, if Brazilian financial system does not fulfill the necessities of risk protection and liquidity, the capital will flow abroad looking for quality, speed, low costs and efficiency of services.

A home banking computer allows people to change of bank through a single touch in their keyboard. In the same way, they can change his savings from one city to another or from their country to others. Money is free and has no homeland, only interests, in profitability. The less investment opportunities created in Brazil the more the money will cross the frontiers.

In 1993, before the Real Plan, estimated 50 billion dollars run away from Brazil, due to alleged political and economic instability, fear of savings confiscation, inadequate taxation and lack of long run visibility.

If that 50 billion had been invested in the country, as investments have a multiplier effect, estimated as 1,5 million people more would be in the labor market, adding 5 to 6 million consumers. With a return rate of 10% a year, this amount would receive 5 billion dollars. These lost savings transferred its beneficial effects to other country economies, where there is more stability and better return rates.

Global competition for liquidity among all exchanges has strongly increased. Foreign exchanges will try to capture and internationalize Brazilian domestic goods. If national states are diluting in economic blocks, business and jobs are not. If a country is not able to defend them they will be lost to others.

Liquidity means when you invest something in a market; you are sure you can withdraw it, at any moment, because the negotiation volume is so big that you'll always find someone willing to buy or sell. If an exchange loses its liquidity nobody will invest in it. Markets analysts, operators and a whole service industry will lose their jobs to foreign markets.

If we attract external investors to our market, in order to buy Telebrás stocks, will make it look at the other companies negotiated at Bovespa, including smaller and medium ones, who have higher labor force. Then, we can persuade them to invest in those companies, improving their capital and increasing domestic labor market. They'll discover that they can hedge from *real* flotation inside the country. Otherwise, they will do all of it abroad.

Brazilian government may think the solely important aspect is the capital risen to invest in the country. Mexico also followed this policy before and exported its whole service industry to Chicago and now is trying to recover it. Argentina and Chile have lost their *blue-chips* (most noble stocks) to New York.

In the 1993-1996 period, NYSE duplicate the number of foreign companies in their cross-listings, being 300 foreign companies are responsible for 10% of their daily volume in 1996. They intend to be a central market or better, **the** central market. The peripheral or emergent markets only will survive if they modernize and consolidate their exchanges, taking advantage of favorable regional factors and creating access market for international investment to new papers, companies and products.

In Brazil, there are three clearings: Bovespa – Bolsa de Valores de São Paulo, BVRJ – Bolsa de Valores do Rio de Janeiro, both specialized in stocks and BM&F – dedicated to commodities, futures and derivatives. In addition to this, the banking system and some clearing operations



depend heavily on CETIP data system. Other regional exchanges, as they have small negotiation volume, has their systems linked to these clearings, where their brokers have license to act.

Bovespa and BVRJ are recognized as global custodians, who are responsible for an important part of international exchange trade. And in Bovespa's case, for one third of negotiations.

The exchanges suffer from prejudice in Brazil as many people consider them as casinos. Consequently, when privatization program was launched, the Government didn't try to pulverize the shares. On the contrary, they sell directly controller blocks share. They may have underestimated the yearning of Brazilian small savors. As stock funds tripled (from 4% to 12%) their participation in the global fund patrimony in two years (96-97).

As consequence of non-democratization of the state-owned companies, when the indexes rise like rockets because of the funds pressure, there were only Telebras shares to be offered; what resulted in a vulnerable market that dropped violently and scared the newcomer investors. In a market with concentration in few papers, portfolios are exposed to a higher volatility with a concentrated impact, either in the spot index as in the future index. Although Bovespa has reached 1 billion dollars in negotiation a day, its market depends 50% on one single firm: Telebras.

Meanwhile, NYSE – New York Stock Exchange assumedly considers top priority won foreign company shares to its floor. During Hong Kong crisis, 78% Telebras emigrated to other markets. Nowadays, Telebras is one of the five most negotiated shares at NYSE, reaching an year media from negotiated volume of 120 million dollars a day.

Because of historical liaisons between BVRJ and BNDES – Banco Nacional de Desenvolvimento Economico, whose headquartes are in the city and Federal Government whose administration used to be also Rio de Janeiro, besides the fact that they also hold state-owned share custody; BVRJ virtually dominated all privatization scenario.

BVRJ seem have chosen to be a foreign exchanges and foreign banks regional service render and the most noble stock liquidity exporter through ADR – American Depositary Receipts (CST, Vale do Rio Doce, Eletrobras etc). At the same time, they will try to develop the access market or small caps. On the other side, Bovespa and BM&F are trying to defend and spend their efforts to increase domestic liquidity and avoid its flow to foreign exchanges.

The alternative strategy would be specialization of São Paulo's and Rio de Janeiro's exchanges, that have been deterred by internal political

interests. The BVRJ could be specialized in options, Bovespa in stocks and BM&F in futures. It would reduce service costs and would avoid an excessive trade concentration. The brokers and the clients would be benefited.

CVM-Comissão de Valores Mobiliários are making efforts to unify the nine Brazilian stock exchanges, in order to improve the market liquidity and reduce costs. Following the same policy, BM&F incorporated BBF-Bolsa Brasileira de Futuros, in 1997. Their idea is unification and specialization of the exchanges.

Brazilian long run saving and investment source growth depend on economical stability, Social Welfare reform, Services and Trade Balance, Interest rates reduction. The more consistent the long run stability, the bigger will be the spread of the knowledge about derivatives and their role in covering, risk transfer or price discovery.

But if exchanges and clearings are not efficient and has not competitive costs or the country haven't got the necessary credibility, these savings will fly to New York, Paris, London or an Asian financial center. Brazilian brokers shouldn't think they can be just a representative for foreign brokers, as they won't really need them.

As money (liquidity) goes to other countries, also goes any control of it: the regulation and legislation about its use, the price discovery, interest rate decisions etc. Naive globalization advantage adoration by authorities, congressmen and public in general, can trace us a disastrous future. Many people complain about the natural cruelty of this scenario, but globalization means to know **who** and how will occupy spaces in this new competitive environment.

## **MARKET POPULARIZATION**

Millions of people's savings, spread out in many countries, are reaching the market through thousands of funds, in a global, impersonal and more diluted way. Financial and Capital Markets has changed in an astounding speed all around the world.

Capital and ownership structures were upside down and the stock, indexes and funds markets are mirrors of these capers. Firms' capital has been democratized in almost every country, through investment funds. In U.S., for example, 80% population are indirect shareholders gathered in 2500 funds.

Whether a firm performance seems not to be good, the mutual fund sells their shares, defending their owner participants and investors

somewhere else. Otherwise, as the fund drops in the ranking, investors will change to a better performer fund.

Brazil is no exception, although saving accounts and fixed income funds sound safer, due to a much higher profitability of the variable income funds published in newspaper, as well as free-risk fund advertisements, people has started to invest, in order not to lose money. As stock and derivatives markets is not a well established part of our culture, newcomers have to be warned about benefits and perils of such investment funds and have to be persuaded to invest as a lifetime project, pursuing long run return assets. Bank funds has had an increasing participation in the market and they have been the instrument of education

The bigger the number of market players, the better, the safer and the more liquid will be the market. Thus market does not rely in a punch of huge investors, that could move the market in one direction or another. Of course, no one would ignore best market performer movements. If Soros start selling heavily some asset, other brokers will try desperately discovering the reason and some will follow him blindly. After all, he has obtained very large profits in his operations.

The problem about following the leader is a self-perpetuating and self-fulfilled market tendency that can be aggravate into a crisis. An organized market disposes of more visibility of everyone's movements, more transparency. Specially, when clearings register the ultimate investors in order to control their credit limits, as BM&F do. This will be an advantage if exchange have to control intraday credit operation, on-line.

There is a proposition in U.S. Congress to divide the derivatives market in two. One for professionals and another, to the new clients and consumers who are entering into the markets. The first one would work freely only subordinated to exchanges auto-regulation, without governmental (CTFC and SEC) supervision or interference. The benchmark would be 10 million dollars. On the other hand, the retail division would suffer total surveillance of regulatory organisms, allegedly to protect the small investors from the bigger ones and from swindlers.

The objective is to allow U.S. exchanges to compete equitably with over-the-counter markets and foreign exchanges. As over-the-counter procedures are not strictly and directly regulated by authorities, they can have lower prices but also carry bigger fraud probability. In their turn, exchanges are safer although more expensive and less flexible.

Due to over-the-counter growth, authorities either can push them to the exchanges or institute new laws and procedures to act directly in this market, where creativity is flowing freely. Naturally, financial institutions counters don't want to be submitted to clearings. Some are so big that consider themselves as clearing. Others fear super-regulation but all agree that complete *laissez-faire* is impossible.

The U.S. banks prefer Treasury Department classical supervision combined with a market specialized in exchange. In this way, they would comfortably operate in a select club, far away from newcomer hordes.

CTFC- Commodity Trading Futures Commission argue that big market participants could jeopardize the market stability as happened in Metallgesellschaft, Barings Plc and Sumitomo Corp. cases and consequently, they can't go without society supervision.

In parallel, there is a more important movement to create, urgently, new standards for financial markets in International Private Law, promoted by IOSCO, an entity who gathers supervision organism representatives.

The afflux of thousands of new investors, shareholders and speculators through a myriad of new channels put stock and commodities exchange systems in check. Those who reacted quicker changed the negotiation formats and procedures. NYSE's Super Dot system and CMS Collateral Management System can process 500 messages per second. Exchanges capable of processing more messages per second, amplify their nets and connect the remote consumers to the brokers are better prepared to face this negotiation volume rise and consequently to absorb their investment thirsty. Excessive money mobility antagonize long run planning and this does not seem a perfect scenery.

Now, in order to attract investors, companies must show stability and productivity, pay good dividends, be increasingly efficient and protect against risks through exchange efficacious mechanisms. Anyway, it is still better to have a demanding shareholder partner than a creditor charging high interests.

## **CONCLUSION**

In the last twenty years, the world economy has changed dramatically: prices, exchange rates, interest rates are much more volatile. Through a sequence of business management techniques: looking for quality standardization, greater worker productivity, combined with a bigger competition, commodity prices are on a downward drift. As more countries opened for international trade, the economies became more integrated and dependant. Due to finance globalization, with an also

volatile capital flow, disturbances in one market are rapidly transmitted to the others. At last, the world became a small village.

Introduction/Conclusion

In the same period, individual savings are gathered in all sorts of mutual funds, pension funds, investment funds and clubs, which are invading a former private resort for huge investors: the financial markets. As concurrence is increasingly fierce, the funds must administrate them in a very professional way and keep pace with all market innovations. To ignore these, is to lose opportunities, positions and consequently, clients and money.

In this mysterious world, where a strange technical language is spoken, where intricate mathematical formulas and equations are used and in a spinning speed, everybody is trying to survive and to have gains. The jungle law rules this complex market: only the smartest, quickest and the most prepared will survive, especially when the market faces a crisis. There, if someone is gaining, someone is losing. And there, nobody always gains. The quest is for gaining much more than the losses, to have a relative better performance. The risk is omnipresent, as a part of the game. There is no 100% safety in any strategy, no matter how sophisticated and complex its mathematical model can be. If no success is guarantee for anything else in life, in this market this truth is more poignantly felt.

Though, when one deals with other people's money, one, in fact, is dealing with their lives. To gain much or to lose much, sometimes means that some of these lives are being redirected in an irreversible way. Behind the numbers of the market, there are people involved. Decisions directed to one way or another can crush weak country economies in a few days period.

However, to invest in these funds has not been an individual option anymore. All over the world, lifetime savings are being directed to them inexorably, in order to keep their value. Governments are not guaranteeing a satisfactory retirement income, anymore. In fact, in many countries the official social security is in the edge of the unfeasibility. Our current generation won't escape of this world trend which must last for a long time on.

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A bolsista concluiu na Fundação Getúlio Vargas/SP o curso de Administração Pública. Ingressou na Secretaria da Receita Federal em janeiro de 1994, ali ocupando o cargo de auditor-fiscal do Tesouro Nacional. Participa ativamente da organização da Delegacia Especial de Instituições Financeiras, órgão de relevância no quadro da Secretaria. Na esfera do Ministério da Fazenda trabalhou, antes, na Divisão de Controle Aduaneiro e se destacou como membro do Grupo Nacional de Trabalho para otimização do Sistema Integrado de Comércio Exterior, Siscomex. No período de janeiro de 1994 a setembro de 1995, Denise Yoshiko trabalhou na Delegacia da Receita Federal em Uruguaiana, RS. Sua experiência profissional anterior inclui o exercício da função de secretária da Gerência de Câmbio do Banco do Estado do Rio de Janeiro, agência centro, São Paulo.

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