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## **OPEN MARKET OPERATIONS AS THE MAIN TOOL OF MONETARY POLICY**

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## 1 - **INTRODUCTION**

The Federal Reserve System is the institution responsible for formulating and implementing US Monetary Policy, which aim is to promote price stability, full employment and, more generally, a stable financial environment for the economy, that is, growth.

For pursuing these goals the Federal Reserve System has to use the tools of Monetary Policy such as "*discount window*", "*reserve requirement*" and "*open market operations*" to manage the level of the interest rates and the growth of money and credit in the economy, through which would influence the levels of spending, employment and prices.

The Federal Reserve has been facing some changes in the policy formulation since the early 1980's. By that time, the monetary aggregate was pursued as an objective for policy guide in the economy. Although the monetary aggregate still plays an important role in making monetary policy plans, and, since the financial system has experienced structural changes, nowadays, the policymakers shifted the focus of the implementation of the monetary policy to the quantity of reserves and money market conditions.

To achieve these goals, that is, to maintain the desired level of quantity of money in the economy and to maintain healthier financial market conditions, the monetary formulation process requires some adjustments in the supply of bank reserves.

Thus, to adjust the level of bank reserves, the most important tool of Monetary Policy is called for open market operations, which add or drain reserves through purchases or sales of federal securities in the open market.

Therefore, open market operations are the most powerful and flexible tool of monetary policy.

Open market operations are carried out by the Federal Reserve System under the directives of the Federal Open Market Committee (FOMC), which, since 1995, has released its policy decisions on the same day that they are made. Since then, although the market participants continue to speculate about changes in the economy, they no longer watch the Desk day-to-day technical or defensive operations as an indicator of policy moves, specially when they usually would expect changes in policy.

Monetary policy and the economy are linked strictly through the market of bank reserves where banks and other depository institutions change reserves held at the Federal Reserve on an overnight basis. This market is known as the federal funds market.

The proposed program for open market operations, which comprises purchases and sales of federal securities, is read during the daily three-way conference call that links the Desk staff, the Board staff and a Reserve Bank president.

The Federal Reserve performs "*dynamic*" operations when it intends to alter the level of banking reserves. Conversely, when the FED intends to maintain the level of reserves, it performs "*defensive*" operations to compensate the impact on the reserves of "market factors", which fluctuations generates broad but temporary changes on the reserves.

As an advantage of the open market operations being the main tool of the Monetary Policy is that it can be used in short steps and frequently with predictable effects over the reserves.

The effect of the open market operations over the banking reserves affects the level of interest rate, which will as a consequence alter the household's expenditures, influencing in this way its standard of living.

## 2 - **THE ROLE OF THE FEDERAL RESERVE SYSTEM:**

This system was established according to the Federal Reserve Act of 1913 to regulate the monetary and banking system in the United States. This is a central banking system to strengthen the banking activities throughout the Nation.

Its structure was designed by Congress with the target to provide a broad perspective on economy in all parts of the country. It's composed as follow:

a - MEMBER BANKS: if the federal government charters a bank it becomes - by law - a member of the Federal Reserve System. This bank is a "***national bank***"; if a bank is chartered by the state, it is called "***state bank***". Although a "state bank" is not required to join to the Federal Reserve System, it may be elected to. If it becomes a member of the Federal Reserve System, it is called a "***state member bank***", otherwise, the bank will be a "***state nonmember bank***".

There are several functions performed by the Federal Reserve System, as below:

- To regulate the money supply;
- To set reserve ratios for the member banks;
- To control the currency-issuing process by the Treasury mints;
- To clear the checks issued by the member banks.

All member banks have a checking account at the Federal Reserve Bank through which they clear the checks get from other banks. The balance that each member maintains at the Fed counts as part of its reserves against deposits. This is what we call "fractional reserve system", that is, a certain specific fraction of all demand deposits must be kept on hand at all times in cash or at the Fed. The size of the fractional reserve is determined by the Federal Reserve. This fractional reserve allows banks to lend or invest part of the funds that have been deposited with them. More than that, through the fractional reserves the Fed can control the amount of money in the system.

b - THE TWELVE FEDERAL RESERVE BANKS: under the Federal Reserve System, the nation is divided into twelve districts, each with a Federal Reserve Bank owned by the member banks of its district. Known as "***FED***", the Federal Reserve System is composed of 12 Federal Reserve Banks, with its 25 branches and all of states and country banks, with offices in the major cities as: Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco. There are also 9 additional offices for processing checks. All Federal Reserve Banks are subject to the regulation of the Federal Reserve Board of Governors;

c - THE BOARD OF GOVERNORS: a governmental agency located in Washington, DC, which is composed of seven members designated by the President, with the consent of the Senate to establish an independent monetary authority. The members are appointed for fourteen-year terms. One of the most important function of the Federal Reserve Board is to establish reserve ratios for different categories of banks, within limits set by Congress.

Historically, these reserve ratios have ranged between 13 and 26% of demand deposits for city banks, being smaller for country banks. Nowadays these ratios are determined by the size of bank and by the kind of deposits, varying between 18% for the largest banks and 8% for the smallest.

The Federal Reserve Board also sets reserve requirements for time deposits with the range from 1 to 6% depending on the ease of withdrawn.

d - **FEDERAL OPEN MARKET COMMITTEE (FOMC)**: with the purpose of influencing the money market conditions and the growth of money and credit, FOMC directs the purchase/sale of federal securities in the open market operations. It is composed by the seven member of the Board of Governors and five of the twelve Reserve Bank presidents, being the president of the Federal Reserve of New York a permanent member while the other 4 members serve on one year term on a rotating basis.

Although all the presidents take part in the FOMC discussions and decisions, only the five presidents who are members of the Committee have the rights to vote.

The Chairman of the FOMC is also the Chairman of the Board of Governors. The FOMC annually holds eight formal meetings to set annual policy objectives for US monetary policy. These meetings take place in Washington, DC, being the first meeting of the year scheduled in late January or early February. The FOMC is required by law to submit to the Congress semi-annual reports containing all expectations about the performance of the economy and the plans for the US monetary policy for the calendar year. The report must comprise the expectations of annual growth ranges for money and debt aggregates, consistent with expectations for inflation and growth of employment and output.

### 3 - **U.S. MONETARY POLICY TOOLS:**

The major tools used by the Federal Reserve System to perform Monetary Policy are:

- a. **Open Market Operations**: buying and selling government securities to influence the level of reserves in the depository system;
- b. **Discount Window**: lending money to commercial banks and other depository institutions at an interest rate which is set by the Federal Reserve Bank and approved by the Board;
- c. Reserve **Requirement**: commercial banks, savings banks, savings and loans associations and credit unions - called depository institutions - must retain a percentage of certain types of deposits to be held as reserves.

### 4 - **OPEN MARKET OPERATIONS AFFECTING THE LEVEL OF RESERVES:**

The open market operations is the most important tool used by the US monetary policy carried out by the Federal Reserve, involving purchases and sales of government securities.

Any security transaction performed by the Fed changes the volume of reserves in the depository system, once the effects of monetary policy are transmitted to the rest of the economy.

Reserves of the banking system increase every time the Federal Reserve purchases securities, and, by the multiple deposit expansion process, the supply of money increases as well. On the other hand, if the Federal Reserve sells some of its stock of bonds, it will end up reducing the non-borrowed reserves, which will result in a decrease of the supply of money.

Thus, it's easy to conclude that this powerful monetary policy tool can be used quickly and with predictable effects on banking system.

The Fed can perform open market operations to meet a temporary need, that is, to give more effectiveness to the operations; it must sell and buy very quickly and in the right amount needed to keep the supply of reserves.

If Fed buys a security from any seller, a check on itself is issued. As the seller deposits the check on its bank account, this bank presents the check to Fed for payment, which will be honored by the monetary authority. The seller's reserve account will increase with no offsetting decline in reserves elsewhere. On the other hand we can say that any security being sold will result on the other way around.

In its conduct of the monetary policy, the Fed may provide or absorb bank reserves in any kind of assets through market transactions. However, the experience of the policymakers has shown that there are some kinds of assets that cannot be trade easily.

For conducting day-to-day open market operations it should to be observed the maintenance of the average level of the federal funds rate. If this level is above to the FOMC's intended average level, the open market Dealing Room must expand the supply of reserves in order to bring it to the desired level, reestablishing the reserve market conditions. Besides, it is necessary not only to estimate the demand for reserve but also to set a reserve target for each two-week reserve maintenance period. Therefore, it was created the meaning of "Non-borrowed Reserve", that is, the amount of reserve that have not been borrowed through the Discount Window. In constructing the idea of the non-borrowed reserve, some steps must be observed:

a - required reserves is the amount that depository institutions are required to maintain on deposit at the Federal Reserve. This amount is based on checkable deposits held during the two-weeks of the reserve maintenance. For the current period as well as for the following two periods, the amount of required reserve is projected. To accomplish this projection it should be taken into consideration among others the fact of recent trends in checkable deposits, the effects of interest rate in the economy as well as others seasonal and technical factors and the average required reserve for the institutions.

b - estimation of excess reserves: the amount of reserves in excess of requirements has no significant change from one two week period maintenance to another, since institutions maintain the reserve levels close to that required, once it yields no income. If this level is expected to be different it is needed to promote adjustments to the estimate of the demand for total reserves.

c - borrowed reserves: is the amount of reserves that institutions borrow from the Federal Reserve through the discount window. This item is, though, subtracted from the total reserve demand.

So, it can be said that the required reserve (a) plus the excess reserves (b) minus the borrowed reserve(c) creates the projection for non-borrowed reserve for the current and for the two-week period maintenance

## 5 - **OTHERS FACTORS THAT CAN ALSO AFFECT THE LEVEL OF RESERVES**

- a. Yet one have to consider the existence of some **technical factors** beyond the immediate control of the Fed that can affect the level of reserves. These factors may fluctuate according to seasonal influences. Thus, its effects on changes in reserves can be predictable, as for example; the amount of money in circulation rises during the holiday shopping season.
- b. **Treasury's balance** at the federal Reserve: this movement is also related to seasonal pattern, such as social security payment dates and tax date payments will remove reserves from the system. On the contrary, in the tax refund payment the Federal Reserve injects reserves into the system.
- c. **Random occurrences** - such as transportation during the wintertime - are non-predictable factor that may affect bank reserves. This affects terms of float which is the difference between the total value of checks in the process of collection that have been credited to the bank's reserve and the value of those collected but not yet credited.

## 6 - **TECHNIQUES OF OPEN MARKET OPERATIONS:**

The Federal Reserve is legally authorized by the Board to perform open market operations to meet the goals of the monetary policy which first link to the economy is throughout the market of reserves.

There are two different ways through which the Federal Reserve may carry out open market operations to adjust the level of bank reserves:

6.1 - If under predictable factors the need of any adjustment of supply of reserves is continued, Fed can perform the "**OUTRIGHT PURCHASES OR SALES OF SECURITIES**". Redeem maturing securities held in the Fed's portfolio may be effective if the need is to withdraw reserves, which means that it'll be left with fewer reserves in the depository system. If any outright transaction needs to be done, the dealers are requested to submit bids to buy and offers to sell securities of the type and maturity that the Fed has elected to sell or to buy. Being arranged according to price, the dealers' bids and offers will be accepted by the Federal Reserve which correspondent amount must be in sequence, by taking the highest price bid for its sales and the lowest price offered for its purchases.

6.2 - If there is only a temporary need to alter the level of the reserves - by adding reserves to banks - the Fed may engage in the following transactions:

a - **REPURCHASE AGREEMENTS (REPOS)**: are commonly used to fund positions in treasury securities. A "REPO" (RP) is a short-term transaction, which comprises a sale of treasury securities and a forward agreement to repurchase the same security for a certain price at a certain time in the future. REPO's maturity are typically on overnight basis or for a few days, but also can be extended for long periods. The REPO contract sets both the sale and the repurchase price. The REPO transaction means a temporary way to inject reserves into the depository system, once the added reserves will be automatically extinguished with the RP's maturity. Sometimes, dealers can terminate the transaction before maturity, which may also suit the needs of the Federal Reserve.

Due to the fact that repo rates are usually the cheapest overnight interest rate for the seller, because of the liquidity of the market, primary dealers always rely on repos to finance or cover securities positions. Their profits derive from the spread of the operation, that is, the difference between the interest earned on the reverse repo and the interest paid on the REPO.

A REPO is simply a way to obtaining funds by using securities as collateral. It means that, if an investor has federal securities in its portfolio but need cash instead. The manager may sell these securities temporarily to an investor having excess reserves, by providing the securities as collateral to obtain the needed cash. The seller investor has to agree to repurchase the same securities in a point of the future.

Due to the fact that REPOS are characterized as being a collateralized loan with federal securities, if properly handled, they can be a low-risk, short-term investment and high rate of return.

Concerning the participants of the REPO market, securities dealers, investors in securities, corporations, municipalities, banks and thrift institutions use REPOS to finance securities inventories and arbitrage opportunities, improve portfolios yield and obtain securities to complete financial transactions.

Investors may go into a risky REPO operation, even when they think they are doing a safe agreement. To avoid this situation of risk the investor must:

- \* - Take control of the securities pledged as collateral;
- \* - Must provide enough collateral initially to cover the repurchase price;
- \* - Know the correspondent counter-party and manage credit risk accordingly.

b - **MATCHED SALE-PURCHASE TRANSACTIONS (MSP)**: this is the other side of a REPO transaction, also called "**REVERSE REPO**". This transaction is called for when the Federal Reserve needs to absorb reserves from the banks, by borrowing money from them. It comprises two distinguished contracts with the dealers: a contract for the immediate sale of security and a matching contract for subsequent purchase. The maturity of a **MATCHED SALE-PURCHASE TRANSACTION** does not usually exceed 7 days. In general,

this kind of transaction involves primarily "Treasury Bills" that can be easily traded in a huge volume, without substantial change in price.

A REPO (RP) and a REVERSE REPO (MSP) are identical transactions. What will determine the name depends on who initiates it:

\* - if a dealer borrowing money does, it is a REPO;

\*- if a dealer investing securities does, it is a REVERSE, that is, the dealers borrow securities they're shorted.

#### SYSTEM TEMPORARY TRANSACTIONS IN 1994

(in billions of dollars)

	<u>Number</u>	<u>Volume</u>
Repurchase Agreements	146	\$362.0
maturing next business day	80	\$217.6
Matched Sale-Purchase Agreements	5	\$13.1
maturing next business day	5	\$13.1

#### SYSTEM OUTRIGHT OPERATIONS IN 1994

(in billions of dollars)

Purchases	\$35.3
Sales	0.0
Redemptions	3.2

IN 1997, THE NUMBER OF MARKET ENTRIES OF TEMPORARY OPEN MARKET OPERATIONS IS 150, AND THE VOLUME IN BILLIONS OF DOLLARS FOR OVERNIGHT REPURCHASE AGREEMENTS IS \$351.5 AND FOR TERM REPURCHASE AGREEMENTS IS \$296.5.

#### 7 - U.S. MARKETABLE TREASURY SECURITIES:

In order to finance the US national debt, the Secretary of the Treasury (named Secretary) is authorized to issue several types of securities according to the United States Code.

The government securities are divided into two categories: *discount* and *coupon* securities.

*Discount securities* comprises all securities with maturity of one year or less, and pay only a contractually fixed amount at maturity, called face value. In this case, the return to investors is the difference between the maturity value and the issue value. Treasury Bills are classified as discount securities.

*Coupon securities* comprise all securities with maturity of two years or more and pay interest every six months, plus principal at maturity. Treasury Notes and Bonds are considered coupon securities. US securities may be

nonnegotiable, as "savings bonds", for example, which can be either sold direct by consumers or special issues are sold to government trust bonds.

However, the bulk of US securities are marketable, that is, they can be traded in the secondary market at prevailing market prices through financial institutions, brokers and dealers. The form these securities will take depends on their maturity.

The Treasury issues 3 types of marketable securities:

7.1 - **TREASURY BILLS** (also known as **T-BILLS**, or simply **BILLS**):

- a. **legal basis**: T-Bills are issued under Chapter 31 of Title 31 of the United States Code, paragraph 3104;
- b. **maturity**: T-Bills are currently issued in 13 weeks, 26 weeks and 52 weeks of maturity;
- c. **rate of return**: preset rates of return, that is, T-Bills are issued at a discount from face value (par amount) and will be redeemed by Treasury for face value;
- d. **interest**: T-Bills bear no interest. Some specific yield will be earned by investors at maturity by taking into consideration the amount of the discount at which the investors buy Bills and the length of time the security has to be held before they mature.
- e. **denomination issuance**: Bills are issued in denominations of \$10,000, \$15,000, \$50,000, \$100,000, \$500,000 and \$1MM. Round lot in the inter-dealer market: \$5MM.
- f. **issuance form**: book -entry form since 1977. Before, Bills used to be issued in the form of bearer certificates.
  - g. Occasionally, to meet cash flow gaps, Treasury may issue very short-term called "***Cash Management Bills***" in the beginning of some months, once in this period the Treasury's expenditures are higher. Cash Management Bill's maturity varies.

7.2 - **NOTES**:

- a. a) **legal basis**: Notes are issued under Chapter 31 of Title 31 of the United States Code, paragraph 3103;
- b. b) **maturity**: Notes have an *original maturity* of 2 to 10 years. Nowadays, the Treasury issues Notes with maturity of 2, 3, 4, 5, 7 and 10 years on a regular cycle. Notes with 2 and 10 years maturity are normally issued in the quarterly refunding.
- c. Periodically, depending on the Treasury's needs, it can issue. Notes with other maturities.
- d. **rate of return**: Notes are issued at or a very near face value and redeemed at face value;
- e. **interest**: the coupon rate is determined by the market, taking into consideration that Notes are sold through auctions held by the Fed, where the participants bid yield. Securities will be sold to those dealers with lowest yields, that is, the lowest interest cost to the Treasury. Interest on Treasury Notes is paid semiannually.
- a. **denomination issuance**: Notes with a term of 5 years or more, are issued in denomination at \$1,000, to encourage individuals to invest in Notes; Currently Notes with a maturity of less than 5 years are issued in a purchase amount of \$5,000. Round lot at the inter-dealer market is \$1MM, but trades at about \$5MM occur routinely. However, it is common to trade larger amounts, considering that Note market is a wholesale market.



b. **issuance form**: Notes are issued in book-entry form.

### 7.3 - **BONDS**:

a. a) **legal basis**: Bonds are issued under Chapter 31 of Title 31 of the United States Code, paragraph 3102;

b. **maturity**: Bonds are normally auctioned in 10 years maturity or more.

c. **rate of return**: Bonds are issued at a stated rate of return

d. **interest** - Bonds earn interest semiannually

e. **denomination issuance**: Bonds are issued in a minimum purchase amount of \$1,000 and in multiples of \$1,000.

f. **issuance form**: Bonds are issued in book-entry form.

Treasury has offered 30-years bonds in February, August and November. In order to enhance its market liquidity, Treasury may "*reopen*", that is it issues an additional amount of these Bonds. T-Bonds may include "call options" during last five years term.

NOTES and BONDS are very similar. The only difference is that the BONDS' maturity is longer.

In order to lengthen the average term of the debt, Treasury intended to auction a new kind of Bond 30 years maturity, which could be sold in every quarterly refunding. Therefore, BONDS issuance was very limited, due to the fact that Congress imposed a ceiling of 4.25% on the rate to be paid by the BONDS. Considering that "ceiling" was below market rates, Treasury sold bonds in a limited scale. This condition was eliminated in 1988 and nowadays Bonds are normally sold at market yield auctions.

Treasury does not issue Zero-Coupon marketable securities. Nevertheless, long-term Bonds and Notes are permitted to be stripped into their interest and principal components on the electronic book-entry system, in order to meet investors' needs.

### **U.S. TREASURY INFLATION-INDEXED BONDS**:

With the objective to protect investors against the effects of inflation rising, the US Treasury issued the first 10-year inflation-indexed security, which was auctioned in a single-price Dutch auction on January 29, 1997.

Referred as a "TIP" for Treasury inflation protected security, the new US Treasury Inflation-Indexed Bond has a 3 3/8% coupon and its maturation is scheduled for January 15, 2007. This new type of bond has its principal value and interest payments increased as inflation increases and has a fixed coupon rate that will not change over the life of the issue. Coupon payments and final principal payment adjust every time the Consumer Price Index (CPI) changes. CPI that measure inflation or deflation rate will determine the coupon payments and final principal repayment.

In order to increase liquidity in the secondary market, the Treasury will issue additional inflation-indexed securities on a quarterly basis in January, April, July and October.

Investors can benefit from this kind of issuance once they will be protected against inflation by getting a real rate of return, that is, this security will protect investor's purchasing power.

Conversely, the Government can benefit from this considering that the cost of borrowing money will be reduced if the inflation remains low.

Investors who are subject to taxation will be taxed on coupon payments and on the inflation-adjustments to the principal amount in the year the adjustments occur. In this case, the federal tax treatment is very similar to the

tax treatment for US Treasury Strips. Assuming that inflation is positive, and considering that the inflation adjusted principal will be paid only when it gets its maturation, investors will owe taxes on the increase in the principal value. Inflation-indexed bonds are exempt from state and local taxes.

This kind of security is eligible for stripping; that is, it can be a zero-coupon bond. STRIPS (Separate Trading of Registered Interest and Principal of Securities) are the principal and interest of selected Treasury notes and bonds that are stripped at the option of the owner under terms prescribed by the Treasury. Referred in this way as a "zero-coupon" security, the U.S. Inflation-Indexed Bond is not fungible with other stripped coupons once each coupon experiences different level of inflation. It may explain why strips with the same maturity date will have different redemption values.

Investors and dealers may use the U.S. Inflation-Indexed Bond to borrow money in order to finance their positions or borrow the bond to cover short positions; that is, it can be used in repurchase agreements (repo) operations and in a reverse repo as well.

Considering that principal value is indexed to Consumer Price Index (CPI), the amount that has to be paid back on the termination date must comprises the changes in the index ratio from the settlement date to the end of the transaction. For example:

- a dealer who is long for 1 MM (face amount) is able to borrow \$991,665.59;

- repo rate: 5.20%;

- dealer needs to pledge bonds with a value of 102% of the amount of money borrowed (2% additional collateral required is the "haircut");

- amount paid related to repo interest: \$143.24

- on termination date the amount paid back is \$991,808.83

According to the "Bloomberg Financial Markets Commodities News"

## 8 - **US NONMARKETABLE TREASURY SECURITIES:**

The main characteristic of the non-marketable securities is they are not traded in the secondary market.

The UNITED STATES SAVINGS BOND is a type of security issued by the US Treasury to be sold to consumers especially with the purpose to absorb savings from individuals. There are also special issues that are sold to government trust funds.

The US Savings Bonds are easily purchased, liquid and safe and its principal and interest are guaranteed by the US Government. In addition, the savings bonds are an important vehicle for household savings.

From 1941 until 1979 this security was issued in two series E and H. Since 1980, US Savings Bonds have been issued in series EE and HH. The main difference between the two series is that the series EE bonds earns interest at maturity date and face values vary from \$50 to \$10,000. Series HH bonds pays semi-annually interest and face values vary from \$500 to \$10,000.

Concerning interest earnings, series EE bonds earn interest on a fixed, graduated scale. For instance: for bonds held between 6 months to 5 years the rate ranges from about 4% to 6%; between 5 years and the redemption date they yield the greater rate or 6% or 85% of the average return on all marketable Treasury securities with a remaining maturity of five years. An interest earnings on series EE bonds is exempt from federal tax if they are redeemed for qualified educational expenses.

Individuals may acquire US Savings Bonds through depository institutions. The bonds can be redeemed at any time after six months of ownership at any depository institutions and, depending on the series, only at Reserve

Banks offices.

## 9 - THE PRIMARY MARKET AND THE PRIMARY DEALER SYSTEM:

Primary Market is the market where the newly issued securities are offered for sale, that is, where Treasury securities are sold to primary dealers to be remarked in the secondary market. Unlike the secondary market, in which there is a security backing loan receivables, in the primary market loans are effectively made to the borrower.

In the primary market, Treasury promotes federal securities auctions depending on the size of borrowing needs.

Every time the government faces a budget deficit, the amount of securities the Treasury is required to sell increases in order that Treasury is able either to raise funds to cover shortfalls between receipts and expenditures or to refinance maturing debt.

The primary dealer system has been developed for the purpose of selecting trading counterparts for the Federal Reserve in its performance of open market operations in order to carry out monetary policy in the United States. To reach that target the Fed buys and sells government securities in the secondary market. The Federal Reserve determines the dealers with whom it will trade, and these dealers are called "**primary dealers**". In recent years, the number of primary dealers has ranged from 37 and 46.

One can define "primary dealers" as the firms with which the Federal Reserve conducts its open market operations. Each primary dealer is subject to comprehensive regulation by the Securities of Exchange Commission - SEC.

The Federal Reserve expects all primary dealers to demonstrate their continued commitment to the market for Treasury securities by bidding significantly in all Treasury auctions. On the contrary, the Fed will remind it of its underwriting responsibilities. In addition, from all primary dealers is expected:

- a. make reasonable good markets to the Federal Reserve of New York trade desk, in other words, to be effective market-makers;
- b. participate meaningfully in Treasury auctions;
- c. provide the trading desk with market information and analysis that may be useful to the Federal Reserve in the formulation and implementation of monetary policy.

Trade Desk is the "**dealing room**" of the Federal Reserve of New York, which performs all transactions required by the Federal Reserve System in the short-term market, and in the government securities as well under supervision of the Treasury Department. Primary dealers firms may be subject to suspension as primary dealers if they are convicted of felonies under the U.S. laws. One of the main functions of the primary dealers is to serve as intermediary between the Treasury and ultimate investors, by developing customer business and meeting customer needs. Therefore one can say that competition for customer business is intense, which, in other words, has helped the Treasury to sell large amounts of debt quickly, with the knowledge that dealers will work to distribute securities to ultimate buyers.

Primary dealers must submit reports to the Federal Reserve Bank of New York and permit that FRBNY staff to inspect their operations, books and records.

Recent developments have changed the special status of primary dealers. One of them is that has been growing a consensus that information to which primary dealers have access through inter-dealer broker screen should be more available. One other reason for the change is that Treasury had once announced the intention to eliminate the remaining distinctions that favored primary dealers.

Primary dealers must be commercial banking organization subject to official supervision by U.S. federal bank supervisors or broker-dealers supervised with the Securities Exchange Commission (SEC).

Primary dealers and large commercial banks (non-primary dealers) could submit bids for their own accounts and on behalf of their customers. Broker-dealers that are not a primary dealer could only submit a bid for its own account, not for its customers.

Moreover, unlike the primary dealers, non-primary dealers were required to provide guarantees to ensure the abilities to purchase securities for which they bid, or even to deposit large amount of money.

In the summer of 1991, with the Solomon -Brothers scandal in violations of the auction process all primary dealers' activities were scrutinized more effectively and all auctions procedures had to be reconsidered. In consequence, Treasury allowed that qualified non-primary broker-dealer could submit bids for their customers in the Treasury auctions. Besides, no deposit or guarantee would be required.

Nowadays, the hand-delivered sealed bids were extinguished and auctions process is computerized system and can be electronically accessed by qualified broker-dealers.

#### **10 - THE SECONDARY MARKET - CHARACTERISTICS:**

The US Treasury securities market is the largest and the most liquid market in the world, because the federal security is considered the most secure financial instrument on the open market.

The total of US securities (Treasury Notes and Bonds) held by the Federal Reserve System at the close of business on December 31, 1996 is summarized in the following table on a delivered basis:

Treasury Notes and Bonds maturing Bonds maturing Holdings (\$)

12/31/1996

Within 1 year 29,045,221

1 to 5 years 95,607,624

5 to 10 years 33,781,913

Over 10 years 41,825,857

Total Notes and Bonds: 200,260,615

In October 1997, the daily trading volume in Treasury securities by primary dealers is approximately \$200 billions.

Treasury securities are traded largely in an over-the-counter market, which is all transactions in Treasury securities are intermediate by a network of dealers, brokers and investors over the telephone.

Considering the huge amount of money traded every working day, the secondary market holds several important characteristics. Among them can be mentioned:

- a. the market is a *wholesale market* for low-risk and highly liquid securities. Banks, thrifts, dealers, pension funds, insurance companies, mutual funds take part in the market. State and local governments also finance part of their activities in this market. However, small retail investors trade Treasury securities through brokers and dealers. Because of the sums involved, specific professional skill is required on the part of the participants. In effect, very talented specialists operate the market.
- b. another characteristic is *honor*. As mentioned before, large amount of money are traded daily in the secondary market, over the phone and although operation appear in retrospect, people do not renege it, once the motto in the money market is: "*my word is my bond*", according to Marcia Stigum. Because the velocity which with all transactions are made, mistakes may occur and are always ironed out.

Creditworthiness of the issuer as well as the financial strength and integrity of the market participants and the willingness of brokers and dealers, are qualities that guarantees the liquidity, efficiency and safety of the Treasury securities on the secondary market.

- c. *innovation* is a new word to characterize the secondary market. It means that the market is open to new good ideas for trading. If some participant intends to launch a new instrument or to deal in a new way with the existing instruments, the market is receptive for changes. Before an auction, during the period between the announcement and the issuance of a new security, dealers and customers contract to buy and sell the security in terms of yield quotes, once the coupon and prices are not yet known. They conduct trades in terms of price only after the auction results are published and the settlement occurs on the issue date.

The secondary market comprises many instruments such as:

- a. STRIPS (Separate Trading of Registered Interest and Principal of Securities): are the Treasury notes and bonds that have been separated at the option of the owner under terms prescribed by the Treasury.
- b. Financial futures: are standardized contracts that are made and trade on futures exchanges that set a price level for securities to be delivered on a specific time.
- c. Forward contracts: are buying or selling a specific quantity of a commodity, federal securities or foreign currency at a present value or at a spot price being the delivery and settlement scheduled on a date in the future.
- d. Options: is to give the purchaser a right to buy or sell securities or futures contracts for securities at a given price for a set period of time.
- e. Swaps: in addition to other derivatives, investors often use interest rate swaps as part of their hedging and investment strategies for managing interest rate exposure. It is very common to swap a fixed-rate payment streams for floating-rate payment streams.

#### 11 - **THE BOOK ENTRY- SYSTEM:**

Since 1967 the Treasury moved to a system under which all marketable securities would be represented by book-entry securities instead of engraved pieces of paper. The book-entry system, operated by the Federal Reserve banks, acting as the Treasury's fiscal agents, is a multi-tiered automated system in which federal marketable securities are issued and traded, being the ownership evidenced by computerized records kept into an account at the Federal Reserve banks.

The Federal Reserve Banks maintain book-entry accounts for the depository institutions, for the government, international agencies and foreign central banks. Depository institutions holds an account for their own security holdings and for their customers, among them are included dealers, brokers, institutional investors, individuals and other financial institution. Depository institutions' customers may hold an account for their own customers. If a broker or a dealer is not a depository institution it is not allowed maintaining an account directly at the Federal Reserve Bank.

A depository institution may have several book-entry accounts at the Federal Reserve Bank:

- an account for securities in which it has an interest, in its dealer position, in its investment portfolio and securities it has taken in on repo;
- an account for safekeeping for corporate and other investors; and
- an account for securities it holds for dealers for whom it clears.

The Federal Reserve follows the movement of security every financial institution has in its position. Each institution has a terminal linked by wire to the Fed's computer. Through this wire system banks make all securities transfers among them to track all positions.

If a depository institution A intends to sell security to another depository institution B, the seller would make a delivery by sending a wire message to the Federal Reserve Bank. Automatically, the Fed's computer will debit bank A's account in security and will credit bank B's account for the same amount. In turn, the bank B's reserve account at Fed will be debited in money and bank A's reserve account will be credited for the same amount of money.

Book-entry system started operation in 1970 when the major insurance underwriters refused to underwrite government securities held by dealers, which used to keep the securities in bearer form. So, a huge volume of bearer paper kept stored and so frequently moved about the Street to be traded.

The insurance crisis leads the dealers to hold their securities in account at the major banks. The Federal Reserve Bank developed a system of wire transfer between each other during the day, but settlement would be performed at the end of the day, when the banks involved in the transaction went to the Fed to take or make physical delivery.

Book-entry system eliminated then this effect of end of the day movement concerns to net settlement between banks and the Fed.

The book-entry system is also used by US Department of Treasury and other federal agencies to collect and disburse funds.

Concerning to safety, the Fed's computer has a backup to make the system safe by writing records out to disks or tapes and storing them in separate locations.

It has been considered a very safe and efficient system once the idea of eliminating movements of physical papers simplifies and reduces the costs of clearing trades. All Treasury securities are available at the Federal Reserve in book-entry system; that is, the investor receives only a receipt as evidence of ownership, instead of a certificate. We can mention that the ease in transferring ownership of the security that is traded is considered an advantage of the book-entry form.

Fedwire funds transfers are processed in seconds and individually through sophisticated data-communications and data-processing system, which ensure that the sender authorizes the transfers.

FEDWIRE - Securities Transfer Service -

Performance - Current Activity Statistics - Annual 1996

Total participants ..... 8,000

On-line participants ..... 1,200

Computer interfaces ..... 100

Terminal connections ..... 1,100

Percent of transfers On-line ..... 99.1%

The number of book-entry securities transfers increased from 300 million with a value of \$258,200 million in 1993, to 12.7 million with a value of \$154 trillion in 1993.

The Federal Reserve guarantees payments to sender book-entry transfers. Therefore, with the purpose to protect itself against nonpayment on the side of the depository institutions, due to some difficulty in synchronizing the

flow of payment over

Fedwire, the Federal Reserve sets limits on the amount of credit to depository institutions during the business day.

A new transaction code recorded under the number 20800 – Securities Transfer, will be implemented for being used for all securities transferred and principal and interest payment transactions. "Securities Transfer" refers to entries related to transfers or reversals of Treasury or Agency Securities in the secondary market or at original issue. With the implementation of NBES, transaction code 20800 – Securities Transfer will replace all transaction codes, which are currently used by the BESS system.

Another system was developed jointly by the private sector and the Fed to process electronically debit transfers by consumers to pay common bills, insurance premiums, mortgages and to process credit transfers to make payroll payments and corporate payments. This system called "AUTOMATED CLEARINGHOUSE" (ACH), which transfers are considered a better alternative to checks for being less costly and provide certainty of payment to the receiver, processes transfers one or two days before the settlement date.

### 12 - U.S. TREASURY SECURITY AUCTIONS:

The Treasury Debt on December 31, 1995, amounted to \$2.9 trillion of marketable securities held by private investors constitutes a heavy component of the total Treasury debt of \$5.0 trillion, being the rest composed by marketable securities held by the Federal Reserve and non-marketable Treasury securities.

The federal debt, which includes Treasury debt and debt issued by federal agencies, increased from \$1.1 trillion to \$ 3.6 trillion between the fiscal year of 1983 and 1995 when it rose to 51% of nominal GDP from 34% and is expected to increase to the amount of \$4.2. trillion by the end of the fiscal year of 2002, which will represent 43% of GDP.

The Treasury has auctioned large amounts of marketable securities in the past 10 years. The Treasury sold about \$1 trillion of marketable Treasury securities in fiscal year of 1983. This amount increased to \$2.2 trillion in 1995 and in 1996 this figure is \$2.5 trillion of marketable Treasury securities that was auctioned.

This increasing volume can be explained by the fact that as the budget deficit increases the amount of securities required to be sold increases as well, in order the Treasury can raise funds to cover the shortfall between receipts and expenditures and to refinance maturing debt.

### 13 - CURRENT AUCTION TECHNIQUES:

Since 1929, when the technique of auctions began, the Treasury has auctioned T-Bills. Change has happened since then like in 1947 with an introduction of "provision" for noncompetitive bids and in 1983, when bids were received on the basis of yield, that is, at a bank discount basis rather than price.

Three main methods prevailed before 1970 for auctions, as follow:

- a. subscription offerings: the Treasury set an interest rate on the security, selling it at a fixed price. This method became very risky, because due to the increasing in the market volatility in the 70's, economic conditions could change between the announcement of the offering and the deadline for subscriptions;
- b. exchange offerings: according this method, holders of out-standing maturity securities were allowed to exchange them for new issue.
- c. advance refunding: this method was similar to exchange offerings with the difference that the out-standing securities could be exchanged before their maturity date.

Significant changes occurred in 1970, where interest rate (coupon rate) was still preset and bids were on the basis of price. In 1974, Treasury started to auction coupon issues on a yield basis. Bids were made on the basis of an annual percentage yield. Coupon rate was basis on the weight average yield of accepted competitive tenders.

Currently, all negotiable securities are sold by the Treasury on auctions, which are always on a yield basis. Having announced an auction, Treasury does not set a minimum price and does not modify the amount to be sold. The interval of approximately two weeks between the announcement date and the actual date of issue is called "*when issued*". Although the Treasury discourages the federal securities trades during this period, dealers are allowed to pre auction the securities that are offered on an issued basis. It reduces uncertainties on Treasury auctions. In the point of view of the competitive bidders, trading in the "when-issued" period is an opportunity of assessment of how to bid at an auction and for noncompetitive bidders it constitutes a way to use quotes to assess the likely auction average yield.

The US Treasury Department sells securities through competitive auctions, which have different formats as below:

- a. Multiple-prices auctions: in this kind of auction, bids are ranked from the lowest to the highest yield that the Treasury requires to sell the announced amount. In that case, if the competitive bidder has its tender accepted, it will pay the price equivalent to the yield (discount rate) that he bid. Nowadays, all marketable Treasury security (except the 2-and-5 year notes) auctions are conducted in a multiple-price basis.
- b. Single-price auctions: in this kind of auction, bids are ranked from the lowest to the highest yield that the Treasury requires to sell the announced amount and the coupon rate is determined after the auction. Since September 1992, the Treasury has been conducting 2-and-5-year note auctions in a single-price basis. The single-price auction is also called "Dutch Auction", where the issuer gradually lowers the price until a responsive bid is met or all the securities are sold. So, buyers can bid any price they want and securities will be sold at a single-price to all buyers whose bid prices are at or higher than the auction-set price.
- c. Competitive and noncompetitive bidding: in this kind of auction, issuer selects bids by the best (highest) price and the lowest yield. competitive bidders submit tenders stating the yield at which the bidder wants to purchase the securities. Noncompetitive bids are filled at the weight average price of competitive bids. In this case, the purchase does not have to compete with other bidders and the small investors may take part in the auction, without bidding in the same terms as large dealers, who make market in Treasury securities through competitive bids. In Treasury Bills auctions, noncompetitive bids range from \$10,000 to as high as \$1 million face amount, and up to \$5 million of notes and bonds.

Any entity is eligible for bidding in a Treasury auction and bids may be submitted in three different ways:

- a) directly to a Federal Reserve Bank, which acts as the Treasury fiscal agent;
- b) indirectly through a dealer; and
- c) directly to the Treasury Department.

All dealers which are registered at the Securities Exchange Commission and all federal regulated financial institution are permitted to submit bids in Treasury auctions for their own account and on behalf of their customers's account. Since the bidder has a payment mechanism place with the Federal reserve bank of its district, not only the dealers and financial institutions, but all bidders are allowed to bid without pay any deposit.

Nowadays, through the system called "*TREASURY DIRECT book-entry System*", investors may buy Treasury securities directly from the Treasury, on a noncompetitive basis, without using the services of a dealer or a



financial institution.

In December 1995, \$85 billion face amount of marketable Treasury securities were held in the "*TREASURY DIRECT book-entry system*", which is equivalent to about 3% of the \$2.9 trillion of privately held marketable Treasury securities on that date.

Treasury has a predictable schedule for offering marketable securities, which announcements are made in advance. If any change is faced, Treasury announces the auction earlier than usual, in order the market has enough time to adjust and prepare for the offerings. During the year, updated estimates are released by Treasury to permit market participants to estimate the size of the Treasury offerings.

According to the regular cycle of specific maturity, Treasury may auction Treasury securities as below:

### 13.1 - T-BILLS:

#### a. 13- and 26-week maturity:

- auction: every Monday;
- announcement of the amount to be auctioned: previous Tuesday afternoon
- settlement: next Thursday.
- The new 13-week Bill is always a reopening of an old 26-week Bill.

#### b) 1 year (52 week) maturity:

- auction: in the third week of every month;
- announcement of the amount to be auctioned: on the proceeding Friday.
- every fourth-week the new 26 week-Bill will be a reopening of an old 1-year Bill.

From time to time, in order to raise funds to cover low points in its cash balance, the Treasury auctions "*Cash Management Bills*", which maturity dates always coincide with maturity of 13, 26 and 52 week T-Bills. To ensure that the Government does not run out of cash, Treasury may offer "*Cash Management Bills*" as short as one

day, which will be issued in large minimum amount and noncompetitive tenders will not be accepted, in order to reduce the cost of issuance.

Treasury allows an institution bidding for bills to pay for them with "*maturing Bills*". This process is called "*rolling Bills*". On the settlement day, the Federal Reserve will pay for the bidder the difference between the maturing bills and the price of the new Bill.

In the auction process, the participant may enter several bids, by stating the quantity and price of each bid. Price is based on 100. The number of decimal is three.

### 13.2 - NOTES AND BONDS:

#### a) 2 year and 5-year Note: auction every month, for settlement at the end of the month;

#### a. 3-year Note, 10-year Note and 30-year Bond:

- auctioned at the beginning of the second month of the calendar quarter (February, May, August and November);

- announcement: last Wednesday of the preceding month, Treasury announces:
- amount to be auctioned;
- amount to replace maturing Treasury debt;
- portion of the amount is to rise new funds; and
- estimated cash need for the quarter.

Generally these issues are sold on consecutive days.

a. 7-year Note:

- auctioned during the second half of each calendar quarter with the purpose to conduct Treasury's "mini-refunding".

a. 30-year Note:

- in the mid-quarter refunding in February, August and November

#### 14 - **THE TREASURY AUTOMATED AUCTION PROCESSING SYSTEM-TAAPS**

The Treasury Automated Auction Processing System - TAAPS, is an electronically system developed to enable the primary dealers to submit their bids via computer-to-computer link, instead of submitting paper tenders. Bids are submitted to a Federal Reserve Bank through a computer terminal located at the bidding entity's office.

Once bids are submitted, the TAAPS ranks them electronically, notifies the bidder of the acceptance of the bids and facilitates the issuance of the correspondent security in the commercial book-entry system.

In 1991, under pressure of investigation by federal law-enforcement authorities, Solomon Brothers, one of the largest dealers, admitted that during the previous two years, it violated repeatedly Treasury's auction rules. Although Treasury limits any bidder from winning more than 35 percent of an auction, Solomon Brothers admitted that at least in 8 different occasions traders evaded that limit by:

- a. submitting false customers bids without customer knowledge,
- b. transferring securities from their customer's account to their own account without customer's authorization.

Then, to reestablish confidence in the automating auction process, Treasury enforced *The 35 Percent Rule*, issued in 1962, to prevent investors from benefiting from submitting huge tenders in order to obtain large proration of the securities at the highest yield. Moreover, the enforcement of this rule would ensure broad distribution of federal securities, one of the Treasury's main goals, and avoid concentration of securities in a few hands of ownership as a result of the auction. Although bidders may submit tenders for more than 35 percent, the Treasury does not recognize any bid exceeding that limit.

After the Solomon Brothers' scandal, Treasury, the Federal Reserve System and the Securities Exchange Commission (SEC) took important measures to review the whole financial market system. Among these measures was recommended the automation of the auction process, which could detect rule violations and make auctions more confident and efficient.

The TAAPS was put in place in April 1993 in substitution of the old manually auction process for large dealers. It began by electronically bidding in a 52-week Bill auction. Efforts have been made by Treasury in order to provide all bidders with electronic access to Treasury auctions. While this process is running, Treasury continues to accept paper bids, to ensure broad access to Treasury auctions.

## 15 - CONCLUSION:

The US economy's performance in 1997 has been exceptional, being characterized by strong growth and low inflation, with a real gross domestic product (GDP) expansion of about 3% annual rate.

Monetary policymakers forecast for 1997, as a whole, the real GDP will grow 3% to 3 ¼ %, and their projection for 1998 is an expansion of 2% to 2 ½ %.

Nowadays, the conduction of monetary policy in the United States requires the policymakers' responsibility to achieve the highest level of *sustainable economic growth*, which will lead to promote a high standard of living of all citizens and to create more jobs. Indeed, monetary policy cannot "produce" economic growth, but can foster economic growth by ensuring a stable price environment.

In a sustained growth, the standard of living rises and, as a consequence, average people are better off.

*Price stability* is another component for promoting economic growth. Stable price is a primary long-run goal of the monetary policy and it is so important because, even if moderates, a rising price level - that is, inflation - will impose substantial economic and social costs on society. The Consumer Price Index (CPI) rose at less than a 2% annual rate in the first quarter of 1997, comparing with an index a little more than 3% in 1996. Policymakers are confident that consumer prices (inflation) will rise from 2 ¼ % to 2 ½ % in 1997 and their expectations for 1998 is that CPI inflation rises from 2 ½ % to 3%. Mr. Greenspan believe that the increasing projection is due to the absence of many temporary factors that were holding down inflation.

Therefore, some financial market analysts suspect that the Federal Reserve System has been preparing the financial market for a tightening of monetary policy based on prior forecast of rising inflation before the end of this year.

*Unemployment* rate is about 5% and is considered the lowest level in almost a quarter century. Many people in the working-age have been given the opportunity to get a job and improve their skills, which will lead to a more productive people. Therefore, the government would benefit from this.

Growth, price stability and full employment are the main goals of macroeconomic policy, which encompasses monetary policy, to keep the economy in a desirable level of sustained growth.

Concerning the financial markets, the rapidly increasing prices in the stock markets have been driven by long-term interest rates. Investors expect that profit margins and earnings growth will remain stable in a low-inflation situation.

According to a speech of the Chairman of the Board of the Governors of the Federal Reserve System, Mr. Allan Greenspan, last October, stock market investors were warned that it is unrealistic to expect the market to continue to produce the gains it has recently.

Interest rates in the USA have been kept in steady level since March, when the Fed pushed the federal funds rate to 5.5% from 5.25%.

The crucial problem left to the monetary policymakers is that the conduction of monetary policy produces immediate effects on the financial market, but with lags on output, employment and prices, which will require the policymakers to follow up very carefully all signs and assess future risks more frequently.

Concerning the Fiscal Policy, USA has had a major problem controlling the fiscal deficit that is around \$38 billion. Policymakers expect to maintain the US Budget Deficit for the fiscal year of 1997 at or under the \$37 billion.

In the case of Brazil, Open Market Operations is the most powerful tool of Monetary Policy due to its flexibility. Monetary Policy is carried out by the Central Bank of Brazil, which, in the point of view of the market

participants, has the discretionary power on its totality; that is, the Central Bank has its own unlimited portfolio. In this way it can set interest rate putting it at any level as it is necessary to conduct Monetary Policy.

Brazil has made dramatic progress since the Real Plan was put in place in July 1994. After a long period of chronic inflation, the country implemented a stabilization program, which may, without the necessary improvements, loss confidence on the part of Brazilian people.

In 1996, growth rate was about 1.5% of real GDP per capita, increasing to 2.3% according to the economists' forecast for 1997. In the same way, inflation rate reached 10% in 1996 and declined to 7% for 1997 forecast.

Nowadays, inflation has been under control for the past three years. In August, the country experienced the lowest inflation level (0.09%) in the past 10 years. Brazil has big budget deficits, increasing real wages, large real appreciation and a large external deficit.

The net fiscal deficit come to R\$ 269.5 billion (32.7% of GDP) in August 1997, with the interest rate around 1.58% in the same period.

The effects of big Budget Deficits - that is - with government's expenditures exceeding tax revenues, are higher inflation rate or higher interest rate. What one may conclude is that any change in the state of economic conditions will influence the effectiveness of the monetary policy.

With the advent of the Hong Kong financial crisis in late October, 1997, Brazil has been faced so many problems in controlling the economy, specially due to the inadequate fiscal adjustments, which with a high fiscal deficit required the adoption of a tight money, with high interest rate (ranked from 1.58% to 3.05%).

Considered by the economists as an important source of "dissaving", fiscal deficit requires and aggressive fiscal adjustment, mainly through constitutional reforms. Many important fiscal measures was released last month by the government with the purpose of maintain economic conditions in desirable levels in order not to destabilize the success of the Real Plan.

For the period 1996 - 1997 policymakers expect a declining only to \$34.9 billion, just 10.6 billion above the required level, to meet government's target of 3% of the GDP, that is \$24.3 billion.

Taking into consideration that Brazil has facing an ongoing stabilization program, a review of the mechanisms of monetary policy transmission is called for, due to the fact that the program under consideration leads to profound structural changes in the economy.

The exchange rate was fixed at one to one on the US dollar in the beginning of the Real Plan, leading to a significantly against the dollar between 1994 and 1996. Following, when Brazil face trade problems, a "*crawling peg*", was implemented, creating a strong and stable real exchange rate to try to avoid further real appreciation.

In order to prevent the return of inflation, the government decided to raise interest rates in such as high level (averaged over 40%), provoking many bankruptcy among financial institutions. Conversely, this decision attracted a very large capital inflows pushing the foreign exchange reserves from \$32 billion in December 1993 to \$59 billion by the end of 1996. Interest rates fell from 1.77% to 2.13% of GDP at current prices. There was an operating improvement with the deficit dropping from 3.7% to 1.37%.

In the Brazilian case, and in theoretical terms, the exchange rate control, carried out by the Central Bank, was always a fixed system, with the monetary authority establishing the buying/selling exchange rate.

In this context, an interest rate increasing in the domestic market aimed to control the monetary base expansionary pressures has very little effect. The maintenance of the interest rate in the international market, creates the opportunity to the capital inflows that, acquired by the Central Bank, neutralizes the initial target to control the monetary base expansionary pressures.

In an economy with a floating exchange rate, capital inflows involve an inevitably domestic currency appreciation leading to a decreasing in capital inflows. Conversely, capital outflows lead to domestic currency depreciation, discouraging definitively the movement of capital outflows.

Therefore, the process of appreciation and depreciation of the domestic currency keeps the foreign reserves in a desirable level in the economy.

Moreover, it is important to stress that in both situations mentioned before, exists the expectation of neutralizing fiscal accounts. In the presence of the fiscal deficit the tendency of a domestic currency appreciation increases. On the other hand, the result is the domestic currency appreciation.

In this context, the foreign reserve stability is the main government target.

Economic reforms, one of the main targets of the Stabilization Program, are now in progress and much privatization process has been put in place in recent years.

In a tightening monetary policy context a restrained measure of reducing the supply of bank loans forces the institution to search for new lenders or constructs a new framework of credit channel, by creating new sources of revenue than cut costs dramatically instead.

To summarize, in the present Brazilian context, the success of the ongoing stabilization program must be achieved with an effective monetary policy, associated with a shift to a list of reforms need and fiscal adjustments.

The role of the effective monetary policy must be to establish a healthy amount of money in the economy, by promoting the stability of the financial environmental, which will lead to a sound financial market.

The effectiveness of the monetary policy would be neutral if it is not related to an implementation of a fiscal policy towards the intention to limit the government expenditures, in order to produce smaller budget deficits. The adoption of the former measures would lead to lower interest rates and improve investments.

The Central Bank at this moment must have the public's support to policies set by the Government to maintain price stability in the long run by reducing gradually both interest rates and inflation and maximizing economic growth.

The public's confidence in the policies and their will in supervising the implementations would foster both sustainable economic growth of the real economy and financial system stability.

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