

**SECOND PART**  
**PROPOSAL FOR MONETARY, EXCHANGE AND CREDIT POLICY FOR**  
**2005**

**I. THEORETIC FRAMEWOK AND EMPIRICAL EVIDENCE.**

**A. BENCHMARK OF MONETARY POLICY.**

**1. The importance of having a benchmark.**

The process of globalization during the last decade has created a greater mobility of funds, which has come to a greater availability of funds to finance investment in emerging economies. Also, the technological progress brought by said globalization has created new and diverse financial instruments and has facilitated the availability of information in real time and to low costs. All this has created a better interaction between the different financial markets around the world, which is shown with an increase of volume of financial resources in activity, and with the speed in which the same resources are transferred from one country to another.

In the above context, the plan and the operation of the macroeconomic policy has been benefited by the increase and quality of the information available, with this, it has been possible to improve the operation procedures to fulfill this policy.

In contrast to this, the globalization of the economy has also originated restrictions in the operation and fulfillment of macroeconomic policy. These restrictions have been object of a thorough analysis and debate in the line of modern economic theory. The most evident restriction is stated in the clause known as '**Impossible trinity of the open macro economy**', which states that, in the presence of free activity of funds (phenomenon that cannot go back to its normal stage because of the evolution of the financial market), it is not possible to acquire a system of fixed exchange rate and, at the same time to apply an independent monetary policy that has as its objective the stability in the level of prices. So, according to this clause, an economy cannot have two benchmarks, in this case: the exchange rate and the inflation.

To hold the economy on only one variable is a fundamental requirement to look for an effective fulfillment of the macro economic policy. As a matter of fact, in modern macroeconomic literature, it is considered that the benchmark is public property, because the maintenance of all the efforts of macroeconomic stability of a country relies on it. This issue is essential to promoting and for the growth and the proper development of an economy.

## **2. The election of the benchmark.**

Countries that choose exchange rate as a benchmark for their economy, acquire a dollarization scheme, such as Panama, Ecuador and El Salvador, or a scheme of super fixed exchange rate, as the case of 'Currency Board' in Argentina (1991-2001)<sup>44</sup>.

On the other hand the countries that choose a monetary aggregate as a benchmark, and those that acquire a scheme of clear inflation goals<sup>45</sup> prevent the macroeconomic irresponsibility caused by the *impossible trinity*; this means that the benchmark is respected, allowing the monetary authorities to frequently stabilize the level of internal prices, which has a positive effect in the expectations of the economic agents; this enforces and gives maintenance to macroeconomic stability<sup>46</sup>.

It is important to mention that since the year 2000, Guatemala has been making progress in the implementation of a clear inflation goals scheme, as other countries have done. About this, Mark Stone<sup>47</sup> made an analysis related to the tendency of monetary regimens in Latin American countries during the 1999 to 2003 period. He found out that the profile of these regimens has changed significantly in the last five years. Regarding the dollarization regimen, the number of countries has stayed in the 18.8% of the total since 2001 until 2003; these countries are Panama, Ecuador and El Salvador; the last two,

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<sup>44</sup> The maintenance and effectiveness of the Currency Board requires fiscal discipline, flexibility of prices and salaries and a high level of International Monetary Reserves. It is important to state that the collapse of the Currency Board in Argentina was because of the lack of fiscal discipline and the salary stiffness.

<sup>45</sup> In this monetary arrangement is very important to give stability to the efforts of fiscal consolidation.

<sup>46</sup> An extensive analysis about this subject appears in Resolution *CT-4/2003* Monetary, Exchange and Credit Policy: Evaluation to November and proposed for 2004 (December 2003).

<sup>47</sup> See Mark S. Stone and Ashok J. Bhundia. A New Taxonomy of Monetary Regimens. International Monetary Fund, Working Paper. October 2004.

acquired this regimen seeking the stability of prices. Particularly, Ecuador stopped using the regimen of a weak benchmark<sup>48</sup> used between 1999 and 2000 and they changed to the regimen of dollarization for the rest of the period. For this reason, since 2001 no Latin American country has acquired a weak benchmark as a monetary regimen.

Regarding the regimen of exchange rate benchmark during the analyzed period, the amount of countries that have acquired it has maintained (31.3%). However, its composition has suffered some changes. In 1999, the countries that composed this category were: Bolivia, Uruguay, Honduras, Venezuela and El Salvador. Except for El Salvador, the other countries maintained the monetary regimen of benchmark of exchange rate. El Salvador acquired the dollarization.

Finally, the decrease observed by the end of the period in the countries that used a regimen of inflation targeting lite (37.5% in 1999 to 18.8% in 2003) is compensated by an increase of the countries that have acquired a regimen of clear inflation goals (12.5% in 1999 to 31.3% in 2003). At the beginning of this period, only Chile and Brazil used the regimen of clear inflation goals; nevertheless, at the present time three more countries have acquired such regimen (Mexico, Colombia and Peru). This compensation between one and the other regimen is mainly because the inflation targeting lite is a transitory monetary regimen, through the regimen of clear inflation goals. (See tables 1 and 2).

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<sup>48</sup> According to Mark Stone, a regimen of weak benchmark is the one that lacks of a well defined benchmark.

Table 1  
LATIN AMERICA  
CLASSIFICATION BY MONETARY REGIMEN  
YEARS 1999-2003

<b>Regimen</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Dollarization	Panama Argentina	Panama Argentina	Panama Ecuador Argentina	Panama Ecuador El Salvador	Panama Ecuador El Salvador
Exchange rate benchmark	Bolivia Uruguay Honduras El Salvador Venezuela	Bolivia Uruguay Honduras El Salvador Venezuela	Bolivia Uruguay Honduras El Salvador Venezuela	Bolivia Uruguay Honduras Costa Rica Venezuela	Bolivia Uruguay Honduras Costa Rica Venezuela
Weak benchmark	Ecuador	Ecuador	-	-	-
Inflation Targeting	Chile Brazil	Chile Brazil Mexico	Chile Brazil Mexico Colombia	Peru Chile Brazil Mexico Colombia	Peru Chile Brazil Mexico Colombia
Inflation Targeting Lite	Peru Mexico Colombia Guatemala Costa Rica Dom. Republic	Peru Colombia Guatemala Costa Rica Dom. Republic	Peru Guatemala Costa Rica Dom. Republic	Argentina Guatemala Dom. Republic	Argentina Guatemala Dom. Republic

Source: IMF Working Paper WP/04/191 'A New Taxonomy of Monetary Regimens' October 2004.

Table 2  
LATIN AMERICA  
CLASSIFICATION BY MONETARY REGIMEN  
YEARS 1999-2003  
Percentage Structure

<b>Regimen</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
<b>TOTAL</b>	100.0	100.0	100.0	100.0	100.0
Dollarization	12.5	12.5	18.8	18.8	18.8
Exchange rate benchmark	31.3	31.3	31.3	31.3	31.3
Weak benchmark	6.3	6.3	0.0	0.0	0.0
Inflation Targeting	12.5	18.8	25.0	31.3	31.3
Inflation Targeting Lite	37.5	31.3	25.0	18.8	18.8

Source: IMF Working Paper WP/04/191 'A New Taxonomy of Monetary Regimens' October 2004.

### **B. THE ORIENTATION OF MONETARY POLICY.**

Of the previous section it is clear that the monetary regimens of inflation targeting lite and inflation-targeting are based on acquiring the inflation as the benchmark of the economy, in a scheme of flexible exchange rate.

In this context, is important to repeat that during the last decade the macroeconomic policy around the world has experienced deep changes because of the new economic and financial structure of the world economy: the process of globalization of economy requires macroeconomic discipline, so the different economies can get the maximum benefit of this process. There is the consensus that states that the stability of the level of prices is a basic condition to encourage the economic growth and development. This is because the

stability of the level of prices decreases the volatility in the relative prices, which brings a more efficient assignment of economic resources.

The above mentioned implies that the central bank must concentrate and lead its actions to accomplish the stability of the level of prices, because this is the best contribution from the monetary policy to provide a macroeconomic environment in which the credit, commodities and labor markets will be able to work efficiently, creating job opportunities and productivity. It is also important to mention that the stability of prices reduces the uncertainty and therefore, it cooperates with the economic agents to make the right decisions regarding savings, investment, production and employment.

The effectiveness of the reduction of the uncertainty implies the central bank to be transparent and to report on its actions: it must provide the public proper and real information about the goals of inflation that want to be reached in a determined outlook, which implies that the inflation rate gets to be the benchmark of the monetary policy<sup>49</sup>.

The fact that the main objective of the central bank consists of reaching and preserving the stability of the level of prices is sustained not only by the conviction that a high inflation is harmful for the economic growth, but also by the idea that the simultaneous search of other objectives by the monetary authority are economically inefficient and may put its stability at risk. This is why the use of the general level of prices as benchmark of the monetary policy implies and demands the acquirement of a regimen of exchange flexibility, with the purpose that the exchange rate will be determined by the offer and demand of the market and it will receive the adjustment of the external sector.

The importance of leading the monetary management of Guatemala toward the stability of the internal level of prices, and the importance of decreasing the external adjustment of the exchange rate, implies that the central bank, by the combination of its different instruments, puts into practice

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<sup>49</sup> It is important to mention that the loss of the benchmark of the monetary policy has high financial and social costs, because it may drive an economy to a process of high inflation and financial and economical instability, as shown by the evidence of countries that tried to use the monetary policy to reach several objectives.

the monetary policy through changes in the offer of money, which guarantees that money keeps control over its benchmark.

Obtaining deeper knowledge into the stability and the efficiency of the macro economy in Guatemala also requires the consolidation of public finance. The fiscal discipline is important not only to prevent that the weight of the stabilization falls only on the monetary policy, which could bring problems in the main macroeconomic variables, but it is also important to help produce an efficient adjustment of the external sector, because the fiscal unbalances; on one hand, produce an excess of aggregate demand that, at the same time becomes an increase of imports, which destabilizes the current account of the balance of payments. Also, the excessive public expenditure produces an increase in the price of non-tradable commodities abroad. This generates an appraisal of the real exchange rate, which has a negative influence on the competitiveness of national exports and, therefore, helps deepen the mentioned unbalance in the current accounts of the balance of payments. Another possible negative effect of the lack of fiscal discipline is that it can produce the increase of the gap between the local interest rate and the foreign interest rate, which generates the income of foreign speculative capital that may put the exchange and financial stability of the country at risk.

The mentioned implies that the consolidation of fiscal discipline is important so that the monetary policy may reach its main objective in an efficient way. It is also important to produce a proper adjustment of the external sector. This way, the continuity of the monetary and fiscal discipline is fundamental for the reduction of the differential between local interest rate and foreign interest rate. This will provide a gradual mobility of funds, outside the country, also leading to a gradual adjustment of the exchange rate, which at the same time helps the adjustment of the external sector.

As can be appreciated, the durability of the monetary policy, based on the existence of a benchmark, is very important to create the perfect conditions for the proper and sustainable growth of the national economy; however, it is necessary to mention again that said policies, alone are not enough condition to

generate economic growth and development in a permanent way. For this, it is necessary for the monetary and fiscal policies to be well disciplined, and work together with the policies of structural character (such as the commercial, work and others) that promote a better use of the elements of production, increasing the productivity of the national economy.

## **II. MACROECONOMIC PROFILE FOR 2005.**

### **A. TOWARD A PLAN OF CLEAR GOALS OF INFLATION.<sup>50</sup>**

The current agreement between academics and managers of the economic policy indicates that a low and stable inflation rate is fundamental to promote an efficient and sustainable economic growth. Also, since both, the theory and the empirical evidence, indicate that inflation is a monetary phenomenon in long term, the macroeconomic discipline in general and the monetary discipline in particular, are one of the most important responsibilities of the public management.

Here, the plan of clear goals of inflation creates a reference for the monetary policy, to reach stability in an effective way for the general level of prices by using and combining its different instruments.

Following, is a presentation of a general vision that contains, on one hand, the concept elements of the mentioned plan, and on the other hand, the international experience of this plan, including Guatemala.

#### **1. The role of economic inflation in the design and the continuation of the plan of clear goals of inflation.**

Most of the strategies of monetary policy, as the one of growth goals of the monetary aggregates, make great use of medium goals (for example, the remnant of money in a reduced sense or in an ample sense) which can be controlled reasonably well by the monetary authorities, but only have one indirect effect and one uncertain statistic regarding the object variable, which is

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<sup>50</sup> The content of this part is mainly sustained by: 1) Bernanke Ben, Laubach Thomas, Mishkin Frederic and Posen Adam. Inflation Targeting Lesson From The International Experience. 1999; 2) Central Bank of Chile. Ten Years of Inflation Targeting. November 2000; and 3) Mishkin Frederic. Can Inflation Targeting Work in Emerging Market Countries? March 2004.



inflation in this case. In practice, to control inflation usually gets more complicated than controlling the growth of money. Nevertheless, the growth of money does not have an essential interest; therefore, the fact that its control gets less complicated is useful only as it allows foreseeing the object variable (inflation). In most of the countries it has been demonstrated that the relation between the growth of money or other medium goals and the object variable, even though certain, is neither totally predictable nor trustable.

Based on this, the central banks lean more on variables that provide useful information on the economic situation, known as variables of information or indicative variables, which are chosen to plan, because of its capacity of prediction. Nevertheless, it is good to mention that the variables must be used carefully, because there is no guarantee that the information will be the same in the future. Therefore, the best option is to combine the use of variables of information with patterns of prediction given by econometric methods.

**a) Discretion or established rules.**

During the nineties, most central banks adopted the stability of the general level of prices as its main objective. This meant an important change in the operation procedures of the monetary policy because, on one hand, they were searching to eliminate any kind of inflation slope that could bring bad monetary management and, on the other hand, they tried to positively affect the expectations of the economic agents; this means, the monetary policy to be trustworthy.

Many central banks based their operation procedures in rules of monetary policy. These rules were appointed to eliminate the possible inflation slope and to reinforce the credibility of the monetary policy; nevertheless, the incident of endogenous and exogenous shocks did not permit the monetary policy to have an effective and efficient fulfillment.

The severity of the rules made evident the need of having a plan of monetary policy that, at the same time, could eliminate the possible inflation slope, positively affected the expectations of the public and was flexible enough to respond effectively to the mentioned shocks.

The plan of monetary policy that fulfilled these requirements should be a solution of commitment between the patterns of established rules and the patterns of absolute discretion; this means that they should incorporate the advantages of both plans and avoid, as possible, the existing disadvantages.

This solution of commitment created the experience of many countries that decided that their central banks should give public information about the inflation goals that they were committed to reach in a determined period. Also, together with the publication of the goals of inflation (inflation targeting) they should advise the economic agents on the operation procedures that the monetary authority would use to reach those goals.

The use of the monetary policy in the mentioned ways has an advantage of committing the central bank to fulfill what they announced. This eliminates any inflation slope that could happen in an inconsistent monetary policy, and it also positively affects the expectations of the economic agents because they have access to the important information about the possible evolution of monetary management.

The fact that the central bank must provide the public with important information on operation procedures of the monetary policy has the advantage that it gives this policy greater flexibility to respond to different shocks to which the economy is exposed. For example: If the central bank wants to minimize the negative effects of external shock by making changes in the monetary policy, said changes have to be announced to the public, so they will not affect the credibility of the central bank.

This means that the plan of inflation targeting is a pattern of limited discretion, because it basically eliminates the inflation slope, positively affects the expectations of the public and has the proper discretion to respond to the different shocks that could affect the economy.

### **b) The election of the benchmark: a crucial element.**

In the election of the benchmark of the monetary policy, its managers have three basic options: the exchange rate, a monetary aggregate or the inflation rate.

In the countries with a flexible exchange rate regimen, the benchmark may be a monetary aggregate (monetary issue, monetary base or nominal interest rate). According to this system, the central bank uses its instruments, for example, the interest rates to control the monetary aggregates that are considered the main determining element of the long term inflation. This way, the control of the monetary aggregates would be equal to stabilizing the inflation rate according to the goal value, which ensures not losing the benchmark of the economy. Evidently, the possibility that the monetary aggregates work effectively depend, on one hand, of the stability of its empirical relation with the goal variable (the inflation rate) and, on the other hand, of its relation with the instruments of the monetary policy (generally the open market operations).

After the collapse of the Bretton-Woods system in the middle of the seventies, most of the developing countries acquired certain mechanisms of exchange rate fixing; two thirds of those countries have currently adopted more flexible exchange rate mechanisms. Nevertheless, several developing and in transition countries keep fixed or almost fixed exchange rates, and some economies that registered high inflation rates (for example Brazil, from 1994 to 1998) successfully fixed the exchange rate with the purpose of quickly stopping the inflation. With the growing integration of capital markets of the world, in the last twenty years, the growing instability of capital circulation since the crisis of the European Monetary System of 1992, especially after the most recent financial crisis of Asia and Latin America, the conditions to maintain a fixed exchange system have turned much more complicated. Reason why the developing and in transition economies that keep a fixed exchange rate as benchmark of monetary policy are object of growing pressure, in favor of the more flexible mechanisms or other wise, in favor of mechanisms of conversion till or dollarization.

At the same time, the industrialized countries have been in favor of more flexible exchange mechanisms in the post Bretton-Woods era. The majority chose some kind of regimen of fixation of clear monetary goals. Nevertheless, the experience acquired by the countries using clear monetary goals, for eighty years, was not satisfactory. As financial institutions, they were creating substitutes of money; the demand of money became more unstable, leaving as evidence that even though there is a long term important correlation between money and inflation, its short term correlation is very weak. As a result, since the beginning of the nineties, the number of countries that have acquired clear inflation goals as a strategy to conduct the monetary policy has grown.

**c) Operative elements of the strategy of clear inflation goals.**

The fixation of clear inflation goals is a plan of monetary policy that commits the central bank to stabilize the inflation rate. Normally the process begins with a public announcement of the central bank about a clear quantitative goal that must be reached in a determined period (for example, an annual rate of 4% in a period of two years). Then, the central bank, who must be free to decide how to use its monetary instruments ('instrumental independence'), has the responsibility to reach this goal and must inform the public periodically about its strategies of monetary policy. This obligation of transparency contributes to reduce the uncertainty of the future of the monetary policy and foments the credibility of the central bank and the rendering of explanation.

In specialized bibliography the strategy of fixation of clear inflation goals is defined as a way to conduct the monetary policy with limited discretion. On one hand, the adoption of clear goals commits the central bank into keeping certain coherences in its policy, and on the other hand, gives the central bank the freedom to decide on the use of the instruments it has, which gives flexibility to react before unexpected internal and external problems.

Usually the central banks that adopt this strategy, adjust their instruments (for example, open market operations) to a level that will carry the forecast of inflation rate for one or two more years. The forecasts act as mid range goals;

the difference between the forecast and the fixed goal motivates the decisions of policy that allow closing the gap. Without a doubt, this focusing oriented to the future is desirable, because of its duration and the variability in the differences between the adjustments of monetary instruments and their effects in the policy goal. Otherwise, to react before the past or current inflation would mean that the policy would always be acting late; which increases the probability of greater variability of inflation and of the internal production.

In practice, the central bank usually decides the future course of the monetary policy, after an evaluation of the information that comes from several indicators, as the inflationary forecast of the structural macroeconomic patterns; the foresights generated by more mechanical judgments, as self regressive vectors patterns and the polls of inflationary expectations in the market. The monetary authorities also study the evolution of important monetary and financial variables, as money and credit, the structure of terms of the interest rates, the prices of assets and the conditions of the job market. As more than one of these indicators suggests that the future inflation could exceed the goal, the need to activate the monetary instruments becomes more evident.

#### **d) Importance of transparency.**

The monetary policy is more effective if the markets know the objectives of the policy and the links between the measures of monetary policy and these objectives. The transparency also gives the market agents the idea that the central bank is responsible for the results, which could have an effect in the discipline of the design and the implementation of the policy. Since the costs of inflation increase, not only because of its level, but also its variability, the clear goals of inflation better establish the decisions of saving and investment, by reducing the uncertainty on the course of inflation, with which the productivity is stimulated. Also the clearing of the intentions of the central bank could contribute to reducing the instability of the financial markets, with the beneficial effect of a reduction of fees for risk and exchange rate.

It is important to mention that the central banks are reliable if they have had a good course in the achievement of the announced inflation goals. All

central banks that use a strategy of clear inflation goals publish periodic information of monetary policy on inflation, in which they indicate the future course of the monetary policy and explain the differences between the inflation rate observed and the rate fixed as the goal. To make the comprehension of the strategy of the central bank easier, they also include forecasts of inflation and a description of contingent policies. This anticipated announcement reduces the probability of misunderstanding the reaction of the bank before such contingencies.

**e) Other implementation elements.**

The implementation of a strategy of clear inflation goals requires that the authorities acquire many key decisions. First, it has to establish the inflation measurement it will use. The two natural options are the Consumer Price Index (CPI) and the implicit deflator of the Gross Domestic Product. Even though this last one is more attractive because it just shows the concept of 'internal' inflation, the CPI offers evident operative advantages: the most familiar index to the public; it is usually available monthly and on time (which allows a periodic control) and it is occasionally reviewed. Another important element is to determine if the monetary policy should fix all the variations of inflation or if it should exclude the short term fluctuations considered exogenous. Most of the central banks that apply this strategy concentrate on the underlying inflation. The acquirement of a goal to underlying inflation means that the monetary policy will accommodate only the first impact of those price increases, but not the secondary effects that result from the spiral wages-prices.

The second element is the inflation goal. Most industrial countries of low inflation have chosen inflationary goals between 1% and 3%. There is agreement that it is not convenient to have an inflationary goal of zero, because the presence of severity to the decrease in nominal wages and the prices will require a positive inflation rate to give margin to the necessary variations of the real wages and other related prices of the economy. An inflation goal zero would not leave margin (if necessary) for the real interest rates to acquire a negative sign, in some stage of the economic cycle. The recent experience of Japan reveals the need of having a negative real interest rate to stimulate the

aggregate demand. Certainly, one of the advantages of the strategies based on clear inflation goals is that they can prevent the deflation compensating the effect of systematic negative disturbances in the aggregate demand. This means that this regimen applies symmetric treatment to the inflation and to deflation: the monetary policy must be restrictive (expansionistic) if the observed inflation is systematically above (under) the inflationary goal.

A third element is if a punctual goal or an interval of inflation goal is adopted. With a few exceptions, central banks that apply a strategy of clear inflation goals have chosen a goal interval; that is, an inferior limit of a superior limit of predetermined tolerance. Because of the difficulties of predicting the inflation and the uncertainty on the precise temporal context of the natural differences of the mechanisms of monetary transmission, the announced punctual goal could not be reached, which would cause a loss of credibility. Likewise, the punctual goal could require very stable monetary policy to minimize the probability of breach. The interval goal requires a decision of the bandwidth. The too narrow band states in some way, the same problem of the punctual goal. The too wide band, even though it increases the probability of fulfilling the goal; could be a not very effective guide for the expectations. Nevertheless, because of these difficulties of goal intervals, the central banks that use strategies based on the clear inflation goals have shown preference for the goal interval.

The fourth element is the election of the period of the monetary policy; that is, the celerity of the course toward the goal of lower inflation. In practice, if the initial level of inflation is higher than the expected, the celerity with which the policy takes inflation to the fixed goal depends on an evaluation of the cost of the transition of deflation. Maybe at the beginning gradual deflation criteria is more convenient for long term contracts and an adjustment of the expectations of inflation. At the same time, the need to exceed the inertia in the inflation expectations and to foment credibility, would point toward a more accelerated deflation. Naturally, if the inflation rate is close to the best levels, the context of the monetary policy must lead to keep it definitely in those levels.

A last element is the regimen of exchange rate. In the countries that have chosen the strategy of clear inflation goals, the use of a regimen of flexible exchange rate prevails, which allows an immediate adjustment of the external sector. An advantage of flotation is that it reduces the vulnerability of the countries that have sudden speculation crisis. Nevertheless, a common problem of all these countries with a history of high inflation rates is that major variability of exchange rate directly affects the prices. It is important to mention that the exchange rate is a very important channel for the transmission mechanism of the monetary policy. Great magnitude depreciations, for example, provoked by disturbances of the relation of exchange terms or by circulation of capital, may turn quickly into an increase of prices.<sup>51</sup>

**e) Degree of flexibility offered by the strategy of clear inflation goals.**

One of the questions that clear inflation goals state is if it provides flexibility to implement the monetary policy or if central banks inevitably acquire a 'strict' focusing, with which the only objective of the monetary policy is to reach the inflation goal<sup>52</sup>. An exam of the last results obtained by the forecasters of inflation indicates that not even the most severe central banks have always adopted a severe focusing. This means that the strategy always allows the adoption of measurements made to soften the shocks to achieve anti-cyclic objectives. It is evident that central banks not only have tried to reduce the gap to a minimum between effective inflation and the fixed goal, as the variability of inflation, but they have worried about the variability of the internal production according to the potential level. Nevertheless, the worry of the stability of the internal production never puts the mid term viability of the inflation goal at risk. Since central banks are responsible for the long term repercussions that may have all the short term 'discretionary' actions, in this subject the disturbances of the aggregate demand are not considered. Otherwise, the sudden increases of inflation ascribed to the disturbances of the aggregate often disappear gradually; the fixation of goals for the underlying

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<sup>51</sup> The experience of the realignment of exchange rates carried out in 1992 in the frame of the *SME* and the exchange crisis of Mexico, Asia and Brazil, would indicate that deflations of exchange rate have less inflationary consequences when the economies are in recession.

<sup>52</sup> See Svensson, L.E.O., 1999. 'Inflation Targeting as a Monetary Policy Rule'. *Journal of Monetary Economics* 43, pages 607-654.



inflation rate and the use of inflation goal intervals provide the flexibility needed to prevent excessive costs of internal production.

In the described text, it is important to know that there is an opposite relation between flexibility and credibility. If the regimen is too flexible, the policy objectives are not credible. If, on the contrary, the regimen is too severe, the variability of the internal production may be higher than the expected. So, discretion is necessary. If the credibility is solid since the beginning, this opposite relation will lose strength, and the mid term flexibility will increase. At the beginning it is recommended, mostly if the bank does not have full credibility, to adopt a severe attitude about the fixation of inflation goals. It is necessary to establish credibility from the beginning to accelerate the deflation process and reduce the costs to a minimum regarding the internal production and consequently unemployment. The perseverance of authorities in this extent gives the money and exchange markets a signal that the central bank has real independence.

## **2. The international experience in terms of clear inflation goals.**

The results obtained to this day by central banks that apply a strategy of clear inflation goals in industrial countries are satisfactory. The concentration of the stability of prices has contributed to a notable convergence of the inflation rates of these countries. It is important to mention that also in the benevolent international economic environment of the last years and the international integration processes have contributed to this convergence. This is why some specialists state that the strategy of clear inflation goals has not passed the test of a complete economic cycle. Notwithstanding, the authorities that have applied these strategies have had to confront several disturbances registered in the crisis of Asia, Russia and Brazil.

### **a) Elements that affect developing countries.**

The promising experience of the pioneers in the application of strategies based on clear inflation goals and several unsuccessful experiences with exchange benchmarks in Asia and Latin America have persuaded many developing countries to the convenience of adopting a similar strategy to

maintain inflation, to foment credibility and to secure expectations. In Latin America, Brazil, Chile, Colombia and Mexico have abandoned the exchange bands and are using regimens of float exchange rate. In these countries, like in other emerging economies, like Poland, Czech Republic, South Africa, and more recently, Thailand, manage the monetary policy by a process more or less formal of clear inflation goals. Even though most of these countries have been using this strategy for a short time; their experience, until now, is encouraging. For example, Chile and Israel have similar experiences; both countries acquired a context of clear inflation goals at the beginning of the nineties, when they registered annual inflation rates close to 20%. The strategy was implemented gradually and flexibly in both countries, in 2004 achieving the reduction of the inflation to international levels without originating substantial costs regarding product.

The fixation of clear inflation goals may benefit developing countries in many ways by establishing a coordination instrument of the inflationary expectations and a measurement that allows judging the fulfillment of the commitment of central banks. But developing countries have specific problems that are more difficult, than those of the industrial countries: the implementation of strategies based on clear inflation goals. First, many developing countries still register relatively high inflation rates so it is more difficult to forecast the future inflation precisely. Therefore, the probabilities of not achieving the inflation goal are greater than in developed countries. Second, the degree of impact of the exchange variations to the prices (that tends to be higher by developed countries) and the generalization of explicit and implicit indexation mechanisms, give place to considerable inflationary inertia. Third, one of the previous requirements of the fixation of clear inflation goals is that there should not be any commitment regarding other nominal goals (for example, the exchange rate). Since in many developing countries, there are a great proportion of assets and liabilities denominated in foreign currency, an important exchange variation could affect inflation adversely. Fourth, in many developing countries, the independence of the central bank is more theoretical than real, because its decisions are still basically ruled by the necessity of financing the fiscal deficit, so there is still a fiscal predominance. Many

developing countries have substantially reduced the central government deficit, but some still have contingent liabilities that embrace obligations of the city halls, public business and of the same Central Bank that threaten the consolidated fiscal situation of the public sector. In these circumstances, the central banks could hesitate for fiscal reasons before the possibility of having to elevate the interest rates to maintain inflation. Finally, some developing countries could find difficulties in fulfilling the complex requirements of information and of inflation forecast (for example, reports on the main indicators and reliable econometric patterns). Even with these problems, the strategies based on clear inflation goals seem promising for developing countries, since they offer several operation advantages and force the people in charge of making the policies to deepen the reforms and to increase the transparency and to improve the fiscal orientation.

**b) The development or the plan of clear inflation goals in Guatemala<sup>53</sup>.**

In 1991, for the first time in the history of *Banco de Guatemala*, a clear inflation goal is defined and announced, which for that year, 15% was fixed (even though at the end of the year a 10.03% was registered). In 1992, an expected inflation rate of 8% was announced. It is important to mention that in said year the subsidies and exchange limits were eliminated and the exchange market was unified with a flexible exchange rate. In 1993, an inflation goal (8%) was established again. It is important to mention that in said year a mechanism of public sale of foreign currencies was adopted, *which* fixed prices according to the conditions of the market. In 1994, a goal of inflation was fixed again and foreign exchange market was more flexible. In 1995 and 1996, the central objective of the monetary policy was clearly announced to achieve the stability of the level of prices, for which a goal of inflation between 8% and 10% was specified; establishing medium goals for external assets, internal assets and monetary offer. In both years, the exchange plan kept getting more flexible and adjusting for a better gathering of prices of the market. In 1997, the bank reserves ratio, in some way was set aside, giving more importance to the open

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<sup>53</sup> A specific evaluation of this subject is found in: International Monetary Fund, *Banco de Guatemala: Assessing Progress in The Implementation of an Inflation Targeting Regimen*. September 2004; and in Edwards, Sebastian and Rodrigo Vergara. *Política Monetaria y Estabilidad Macroeconomica en Guatemala*, November 24, 2004.

market operations as an instrument of monetary control. In 1999 and 2000, a rank of inflation between 5% and 7% was announced, and in 2001 until the present day, the goal inflation rate has been between 4% and 6%.

### Guatemala: Results in Announced Inflation Goals

Period: 1990-2003

Years	Inflation Goal		Observed Inflation	Deviation in Points
	Fixed point	Rank of the Goal		
		Minimum	Maximum	
1990				
1991	15		10.03	-4.97
1992	8		14.22	6.22
1993	8		11.64	3.64
1994	8		11.59	3.59
1995		8	10	8.61
1996		8	10	10.85
1997		8	10	7.13
1998		6	8	7.48
1999		5	7	4.92
2000		5	7	5.08
2001		4	6	8.91
2002		4	6	6.33
2003		4	6	5.85

It is important to point out that in 2000 important changes happened in order that the Monetary Board determined the policy, because it established several indicative variables. From that moment, even though monetary issue is still the main indicative variable, the following indicators were added: interest rates, bank credit to the private sector, real exchange rate, subjacent inflation, monetary conditions index, and a rate denominated Parameter, which is very similar to the Taylor Rule.

These indicative variables were adopted as guidelines to orientate the decisions in terms of monetary policy because the monetary aggregates (for reasons of financial innovation) had lost a lot of their informative value. It is good to emphasize that in these indicative variables, as already mentioned, a kind of Taylor Rule was adopted, which included, the factors of production gap and inflationary gap; and a gap exchange rate factor.

In addition, in 1994 the Constitution of the Republic prohibits the Central Bank from granting credit to the government. This measurement in combination with the fixation of an annual goal of inflation, with the gradual flexibility of the exchange regimen and with the control of the indicative variables of the policy, began to form a monetary policy background oriented to the establishment of a monetary plan of clear inflation goals.

It is also important to indicate that the legal framework necessary for a plan of clear inflation goals was substantially improved with the approval of the new Organic Law of *Banco de Guatemala*, which, among other aspects, regulates the related to the main objective of the Central Bank, giving priority to the stability of the general level of prices; reinforces its formal, operative and financial (patrimonial restoration) autonomy; marks limits in the role of money lender as a last resort; assigns importance to its responsibility of controlling the system of payments; it forces it to increase its transparency in presenting reports on results in terms of inflation; it forces it to the rendering of explanations by the appearance of the President of the Central Bank before the Congress of the Republic twice a year to present the corresponding reports; and gives privilege to the use of indirect instruments of monetary policy, eespecially , the open market operations.

Notwithstanding the previous, there are still several limitations of analytical nature, such as the lack of a structural pattern for prediction of inflation, which allows identifying the transmission mechanisms of the monetary policy, important aspect in a plan of clear inflation goals. Also, there still exist important statistic limitations that hinder the complete adoption of said monetary plan<sup>54</sup>.

## **B. Perspectives<sup>55</sup>.**

### **1. Of the real sector.**

The sustainable economic growth requires not only the macroeconomic stability, but fundamentally, efficient institutional and structural policies, that

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<sup>54</sup> A more ample analysis about this subject is in annex 2.

<sup>55</sup> In annex 3 statistic information observed and perspectives for 2005 and 2006 of the real, monetary, external and fiscal sectors appear.

allow greater productivity based on the major quality of the elements involved in the productive process.

In this context, the existence of a dynamic and resistant economy before economic shock requires the pre-existence of a disciplined monetary policy, a stable fiscal policy and a proper institutional and structural base that constitute the sustainable growth platform.

For 2005, it is estimated that the national economic activity, measured by the Gross Domestic Product (GDP), in real terms, will estimate a growth of 3.2%, higher rate than the expected in 2004 (2.7%). This foreseen behavior in the economic activity is established, in part, in a favorable external environment, mainly, by the expected growth in the economy of the most important commercial associate of the country, the United States of America. In the internal aspect, the recuperation of the national economy would be supported by the maintenance of the macroeconomic stability, based on the application of disciplined monetary and fiscal policies and by the improvement in the expectations of the economic agents that come from the consolidation of the government management<sup>56</sup>.

In the level of productive sectors, these are expected to register a positive behavior. Nevertheless, it is estimated that the sectors of agriculture, forestry, hunting and fishing; of electricity and water; of transportation, storage and communications; and of wholesale and retail commerce, will observe growth rates less dynamic than the expected for 2004.

For the sectors of agriculture, forestry, hunting and fishing (with a participation of 22.6% in the GDP) a growth of 2.4% is estimated, lower than the expected for 2004 (3.4%). This behavior would be associated, mainly to the expected evolution of coffee, which is estimated to reach a lower level from 2004, as well as the loss of dynamism in the production of cardamom, banana and sugar cane.

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<sup>56</sup> In annex 4 are presented the main elements of the *Programa de Reactivacion Economica y Social 2004-2005*, related to the management of the monetary policy.

Regarding the coffee production, according to the *Asociacion Nacional del Café –ANACAFE-* [National Association of Coffee], it is estimated that next year the phenomenon of excess world offer will continue, therefore, the low prices of the grain in the international market will continue. It is worth mentioning that even when it is expected that in 2005, the mid price of coffee exportation will be around US\$ 82.25 per quintal (100 pounds), higher than 2004 (US\$ 76.24 per 100 pounds), this will continue to be low regarding the price that was in the international market during the period of 1995-2001 (around US\$ 100.00 per 100 pounds).

Regarding the production of cardamom, a growth of 5.0% (17.3% in 2004) is expected for 2005. According to the *Asociacion de Cadamomeros de Guatemala –CARDEGUA-* [Association of Cardamom Producers of Guatemala], the lower dynamism expected is explained by a reduction of the recollection of the aromatic, because of the low level of expected prices.

Regarding banana production, it is estimated that it will grow 7.6% (8.8% in 2004). According to appreciations of the *Compania de Desarrollo Bananero de Guatemala, S.A. –BANDEGUA-* [Company of Banana Development in Guatemala] and the *Compania Bananera Guatemalteca Independiente, S.A. - COBIGUA-*, the expected growth is sustained in the expectation of the prices relatively similar to the ones for 2004.

In the production of sugar cane, a growth of 3.1% is expected, behavior less dynamic than the 6.6%, expected for 2004. According to the *Asociacion de Azucareros de Guatemala –ASAZGUA-*, for the 2004/2005 sugar cane harvest a production of 390.0 million quintals is expected; higher by 11.7 million quintals of the 2003/2004 sugar cane harvest (2003/2004 was 23.4 million higher than in 2002/2003). The expected behavior for 2005 would be associated to the application of the best cultural labor.

According to estimations of the *Coordinadora Nacional de productores de Granos Básicos –CONAGRAB-*, the production of corn as well as the

production of beans will grow 3.5% and 9.7% (0.5% and 5.1% in the same order, for 2004). The biggest dynamism expected is associated to the expectations of the favorable climate phenomena in 2005.

Regarding the sector of the manufacturing industry (with a participation of 12.5% in the GDP), a growth of 2.3% is expected, percentage that, even though it is higher than the expected for 2004 (2.1%), it is still inferior to the promised growth registered in the period of 1998-2000 (2.7%). This behavior is associated to the recuperation expected in the exports of industrial products, mainly, to the markets of the United States of America and Central America, because of the expectations of the continuation of the dynamism of their economies. It is important to indicate that for 2005 events that could affect the development of the sector, are expected. These events are:

a) The perspectives of improvement as a result of the negotiations of the Free Trade Agreement with the United States of America.

b) The end of the multi-fiber agreement (multure), that could be a negative factor for the industrial branches of national textiles, because they would be at a disadvantage before any bigger competition of Asian countries, mainly, the People's Republic of China.

The activity of the sector of wholesale and retail commerce (with a participation of 24.9% in the GDP), is estimated to register a growth rate of 2.8% (3.5% in 2004), explained, mainly by a lower rhythm of growth expected in the sector of agriculture, forestry, hunting and fishing, as well as in the imports sector.

In the sector of mines and quarries, a growth of 1.6% is expected (9.1% in 2004). The major dynamism of this sector would be influenced, mainly, by an increase of the production of gravel and sand, because of the highest activity expected in private construction.

Regarding the sector of electricity and water, a growth of 2.8% is estimated (5.8% in 2004), which is associated, mainly, to the expected demand



of electric energy and to the expected growth in the commercial and services sectors.

The sector of Transportation, storage and communications is expected to register a growth of 6.4% (8.6% in 2004). Said behavior would be a result, on one hand, of the evolution expected in the sub sector of transportation, which shows a lower dynamism, going from a growth of 4.3% in 2004 to a growth of 4.1% in 2005, associated, mainly, to the low dynamism in the incorporation of new units of urban transportation and for passengers out of the city, as well as to a slight increase expected in the transportation of cargo out of the city, which comes from the behavior expected in the industrial sector. On the other hand, the sub sector of communications, that represents 45.2% of the sector, is expected to register a growth of 9.3% in 2005 (14.6% in 2004), that comes from a normal expected activation of new telephone lines.

In the sector of construction, it is expected to register a growth rate of 12.6% (-15.7% in 2004), as a result of an increase of 9.7% in private construction (8.8% in 2004). Regarding public construction, the result is associated, mainly, to a higher rhythm of execution of projects of infrastructure, as the construction of *Puerto de Champerico* and the housing construction project of *Fondo Guatemalteco para la Vivienda –FOGUAVI-*. Regarding private construction, the result is associated to the behavior that would register the surface of construction authorized in 2004, aspect that will be seen in the construction made in 2005.

In the banking, insurance and real estate sectors, it is expected to register a growth rate of 3.8% in 2005 (2.4% in 2004), associated to a more dynamic behavior in financial intermediation.

In the sector of public administration and defense, it is expected to register a growth rate of 1.0% (-8.5% in 2004). This result would be explained, mainly, by the expected increase of the account heading of expenses by remunerations of the general government.

For the sectors of housing proprietorship and private services, a growth rate of 3.1% and 3.9% are expected, similar to the ones registered the previous year (3.0% and 3.8% in the same order).

**ORIGIN BY BRANCHES OF THE ACTIVITY OF THE GROSS DOMESTIC  
PRODUCT AT MARKET PRICES  
YEARS 2004-2005  
(Millions of *Quetzales* of 1958)**

CONCEPT	2004 e/	2005 py/	Variation Rates	
			2004	2005
<b>GROSS DOMESTIC PRODUCT</b>	<b>5,565.10</b>	<b>5,742.30</b>	<b>2.7</b>	<b>3.2</b>
Agriculture, forestry, hunting and fishing	1,270.1	1,300.2	3.4	2.4
Exploitation of mines and quarries	27.0	27.4	-9.1	1.6
Manufacturing industry	702.1	718.0	2.1	2.3
Construction	77.3	87.0	-15.7	12.6
Electricity and water	246.8	253.8	5.8	2.8
Transportation, storage and communications	631.7	672.1	8.6	6.4
Wholesale and retail commerce	1,393.3	1,432.2	3.5	2.8
Banking, insurance and real estate	275.6	286.0	2.4	3.8
Housing property	260.2	268.2	3	3.1
Public administration and defense	346.4	349.8	-8.5	1
Private services	334.6	347.6	3.8	3.9

e/ estimated amounts

py/ projected amounts

**2. Of the external sector.**

**a) Of the world economy.**

**i) General Aspects.**

According to the projections of the International Monetary Fund<sup>57</sup>, it is foreseen that the world economy will keep experimenting a positive growth rate in 2005. It is expected that the global economy will reach a growth of 4.3%,

<sup>57</sup> International Monetary Fund. World Economic Outlook. September, 2004.

slightly lower to the 5.0% of 2004. Nevertheless, there are still several risks that make this global economic dynamism vulnerable, between them, the following can be mentioned:

- **Adjustment of the deficit in the current account of the balance of payments of the United States of America.**

The main risk for the American economy as well as for the global economy comes from the deficit in the current account of the balance of payments of that country, which is expected to be around 5.0% in 2005 as a proportion of the Gross Domestic Product (5.75% in 2004). The adjustment of this deficit requires a depreciation of the dollar, and a reduction of the fiscal deficit, which could be around 4.3% in 2005 as a proportion of the Gross Domestic Product (4.9% in 2004). The mentioned factors imply risk for the global growth since it could turn into a decrease of the American aggregate demand, which will negatively affect the growth of the exports of the rest of the world to that country.

- **Capital flows and monetary policy of the United States of America.**

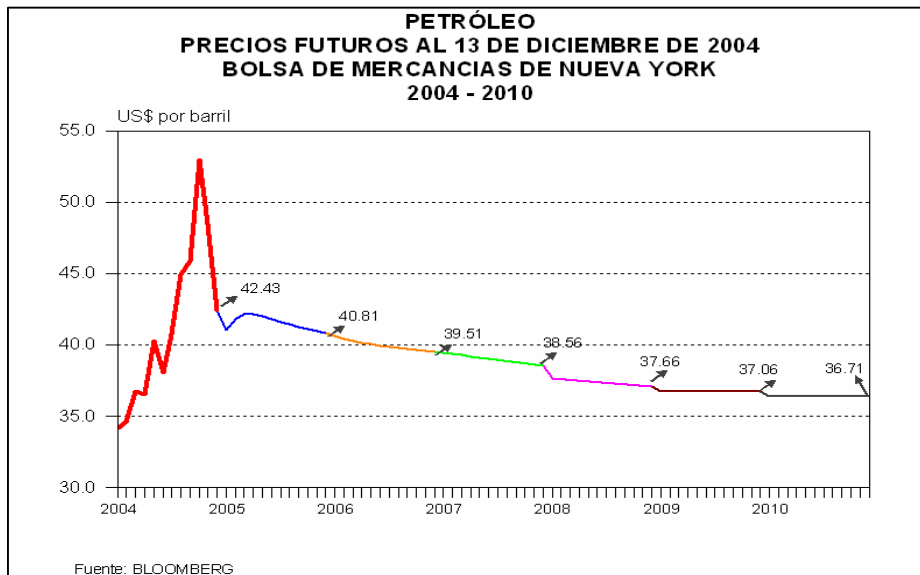
The rise in the interest rate that the restrictive monetary policy generates in that country could affect in a reduction of the capital flow to the emerging economies and could also affect with a capital drain of those economies to the American economy. This means, on the one hand, that the monetary authorities of the emerging economies could be forced to raise their interest rates, which affects its economic growth rate and on the other hand, the reduction of said flows could generate problems of refinancing of the external debt of the mentioned economies.

- **International price of petroleum.**

The evolution of the international price of oil and its effect on world inflation could be an important factor of risk that the world economies will have to face in 2005, because during 2004 this price experimented high volatility and a marked bullish tendency, reaching US\$55.50 per barrel in October; nevertheless, according to the future market quotes of oil, the bullish tendency of said price could turn around in 2005. This should provide a reduction of the

international inflation and therefore, it should help the central banks to stabilize the internal inflation in a more effective way.

**OIL**  
**FUTURE PRICES TO DECEMBER 13<sup>TH</sup>, 2004**  
**NEW YORK STOCK EXCHANGE**  
**2004-2010**



- **Economic growth of the People's Republic of China.**

Regarding the People's Republic of China, its economy generates an important demand of supplies and raw material from the rest of the world, it is foreseen that in 2005 it will grow around 7.5%, lower than the 9.0% in 2004. The deceleration of this Asiatic economy is because of the restrictive monetary policy that by the end of 2004 the central bank of that country began implementing was designed to knock down the inflationary pressures that threatened its economy. The reduction of the economic growth of the People's Republic of China could help stabilize world inflation, but it could also affect the world growth because of a decrease of the imports of the rest of the world.

The economic perspectives for 2005, in general, are positive, because global growth is expected to continue at a vigorous rate, while the inflation in the industrialized economies will continue stable, 2.1% in 2005, and in the emerging

and developing economies a deceleration of inflation is expected from 6.0% in 2004 to 5.5% in 2005.

It is important to indicate that, regarding Guatemala, those possibilities of the reactivation of the world economy to continue, for them to be well used, require that for 2005 the macroeconomic environment of the country remain stable, for which the fiscal and monetary policies must continue to be applied in a coordinated and coherent way.

### **ii) Specific aspects<sup>58</sup>.**

For 2005 it is estimated that the recuperation of the world economy will continue to consolidate and at the same time, to be moderate in the rhythm of growth of some big economies, in which some signs of overheating are starting to appear. As mentioned in the previous part, it is expected that the global economy will reach a growth rate of 4.3% in 2005 (5.0% for 2004); nevertheless, according to the IMF, possible future increases in the prices of petroleum and the geopolitical instability could threaten the maintenance of the recuperation.

In the United States of America the solid economic expansion is expected to continue at a little bit lower rhythm than the one of 2004 (4.3%) and to reach 3.5% in 2005, with the support of the strength of private investment and by the job productivity, that has exceeded the expectations many times and could provoke higher growth than the projected. On the other hand, the deficit in the current account could decrease to 5% of the GDP in 2005 (5.75% in 2004). Regarding the challenges to face, it is believed that the decrease of the consumption, which reasons are not completely identified, could extend for a long period, because the weakness in the job market conditions and the increases in oil prices affect the growth of said variables.

In terms of the Euro, it is expected that the rhythm of the expansion will be moderate and reach 2.2% in 2005, the same as the growth registered in

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<sup>58</sup> The content of this part is based on the document: World Economic Outlook. International Monetary Fund. September 2004.

2004; this modest growth provokes the permanence of the product gap in substantial levels. Some of the short term challenges that the area faces, the possibility of future increases in the international price of oil stand out; a lower growth than the expected in the level of employment; and new appreciations of the Euro. On the other hand, the increase in prices of real estate is something to worry about, especially in Spain and Ireland.

In Japan, the perspectives for 2005 are of a 2.3% growth (4.4% in 2004), stimulated by a reduction in the vulnerabilities of the corporate and financial sectors and by the improvement of the corporate income return that have allowed the increase of the expenditure of capital commodities. According to the IMF, the most important risk to face are the current high levels of corporate debt regarding total sales; the unbalanced progress of restoring the stability of the banking system; the uncertainty before the possibility of future increases of oil prices; and an eventual sudden fall in the rhythm of growth of the Chinese economy.

In the emerging Asian economies it is projected that the growth will reach around 6.5% for 2005 (7.3% in 2004), with the support of the strengthening of the domestic demand. In short term, assuming that the Chinese economy will achieve a soft landing<sup>59</sup>, the regional outlook suggests continuation of the strong growth observed, even though at a lower rhythm than in 2004. Another important risk for this region is its high vulnerability before the increases in oil prices, because of their high impact and the growth of inflation.

Since the price of oil and metals are expected to stay at high levels during the next year, it is estimated that the region of the Community of Independent States will grow 6.6% in 2005 (8.0% in 2004). On the other hand, according to the IMF, the dependence of the region regarding the behavior of the prices of commodities constitutes a key vulnerability; because it is not very probable that said prices will keep growing to the current rhythms.

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<sup>59</sup> Moderate reduction in the rhythm of economic growth, that propitiates the elimination of inflationary pressures.

In the Middle East, according to the IMF, the increase in the production and prices of oil have promoted the economic growth in the last two years; even so, considering that the level of production is getting closer to the limit of its capacity, it is expected that the economic expansion will begin to appear and this way the region will reach a growth of 4.8% in 2005 (5.1% in 2004). One of the most important challenges to face is fiscal consolidation, which is a priority in most of the countries, except for the countries that produce oil, that currently operate with a fiscal surplus that comes from the income related to their oil production.

For the Western Hemisphere<sup>60</sup>, it is expected that the recuperation in the economic activity will continue in 2005, estimating a growth rate of 3.6% (4.6% in 2004), supported by the increase in domestic demand and in oil prices, for the countries that export crude oil. In the regional outlook, it is estimated that the Mercosur countries will grow 3.7% while the ones of the Andes region 4.0%, Mexico 4.0% and Central America and the Caribbean 3.3%. Some of the most important risks they could face are the possible increases of the international interest rates, because many countries have high requirements of external financing, as well as possible decreases in commodities prices.

According to the IMF, it is important that the Central American and Caribbean countries strengthen the institutional base to achieve macroeconomic stability, the development of the private sector and the implementation of effective social policies, to promote the economic growth, to increase the capacity of the economy to absorb shocks and decrease the poverty level in a sustainable way.

Africa is another region with favorable economic growth perspectives. It is expected that the economic growth for 2005 will reach 5.4% (4.5% in 2004). The countries that produce oil will benefit with the international behavior of market of crude oil and it is estimated that will grow in 8.3%, while the economic

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<sup>60</sup> According to the IMF in the context of the 'Western Hemisphere' the following countries are included: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Granada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, Santa Lucia, San Vicente and Grenadines, Surinam, Trinidad and Tobago, Uruguay and Venezuela.

activity in the countries that import oil will be supported by the exports of its commodities and they are expected to grow in 4.5%; however, this position is not so solid, because a deceleration in the economic growth of China could generate risk in many countries, affecting the prices of its commodities.

Finally, the behavior in the global level of prices completely abandons the signs of deflation and according to the IMF, it is expected that inflation in the advanced economies will stay at the same levels observed in 2004 (2.1%) for 2005; for emerging economies and developing countries it is expected that the inflation will decelerate from a rate of 6% in 2004 to a 5.5% in 2005. Regarding the volume of commerce, congruent with the decrease in the rhythm of growth that is expected worldwide; this is estimated to be lower than in this year and reaches a growth of 7.2%.

**ECONOMIC GROWTH AND INFLATION BY SELECTED REGIONS AND COUNTRIES  
Expectations for 2004 and 2005  
(Percentage variation)**

<b>ECONOMIC GROWTH</b>	<b>2004***</b>	<b>2005***</b>
World economy	5.0	4.3
Advanced economies	3.6	2.9
United States of America	4.3	3.5
Euro Area	2.2	2.2
Japan	4.4	2.3
Emerging economies from Asia *	7.3	6.5
China	9.0	7.5
Emerging markets and developing countries	6.6	5.9
Africa	4.5	5.4
Middle East	5.1	4.8
Western Hemisphere (Latin America and the Caribbean)	4.6	3.6
Argentina	7.0	4.0
Brazil	4.0	3.5
Chile	4.9	4.7
Mexico	4.0	3.2
Venezuela	12.1	3.5
Central and Eastern Europe	5.5	4.8
Community of Independent States	8.0	6.6
Commerce Volume	8.8	7.2
<b>INFLATION</b>		
Advanced economies	2.1	2.1
United States of America	3.0	3.0
Euro Area	2.1	1.9



Japan	-0.2	-0.1
Western Hemisphere (Latin America and the Caribbean)	6.5	6.1
Emerging economies from Asia *	4.0	3.0
China	4.0	3.0
Countries of the Community of Independent States	9.9	8.7
Other Emerging Markets and Developing Counties	6.0	5.5

\*Includes Asia in development, the recently industrialized economies of Asia and Mongolia

\*\*\*Source: International Monetary Fund (IMF). World Economic Outlook, September 2004.

### **b) Of the balance of payments for 2005.**

In the context of the commented perspectives of world economy, for the balance of payments of Guatemala for 2005, a scenario is stated in which a decrease of net international reserves is estimated by US\$135 million, because the surplus balance of the capital and financial account, of US\$1,046.3 million, would not be enough to finance the deficit in current account projected for next year, which would be of US\$1,181.3 million, equivalent to 4.0% of the GDP (4.1% in 2004).

Regarding the *FOB* value of exports, this would be US\$3,170.2 million, higher by US\$ 214.5million (7.3%) regarding 2004. This result would be determined by the increase, regarding 2004, in the value of exports of the main products of exportation by US\$53.6 million (5.2%), and by the increase in the value of the exportation of other products (to Central America and the rest of the world) by US\$160.9 million (8.3%). The sales to Central America would increase in US\$99.5 million (8.0%). The other products destined to the rest of the world, would increase in US\$61.4 million (8.9%).

In the value of the exports of the main products, the increases of 5.2% would be explained, in part, by a rise in the value of the exports of coffee, going from US\$ 324.8 million in 2004 to US\$ 355.3 million in 2005, mainly due to the tendency of the increase in the international price of the grain, expecting therefore, that the mid price per quintal of coffee will increase by 7.9%, while the exported volume would go from 4,260 thousands quintals in 2004 to 4,320 thousand quintals in 2005 ( 1.4%). About the exported value of sugar, it is estimated that this will be at US\$218.6 million, higher by US\$21.7 million

(11.0%) than 2004. This result would obey an increase in the exports volume, which would go from 26,267.5 thousand quintals in 2004 to 26,987.7 thousand quintals in 2005; as well as the mid price per quintal, which would be increased from US\$ 7.50 in 2004 to US\$ 8.10 in 2005.

Regarding banana, the exported value would be expected to be at US\$253.6 million, higher by US\$11.7 million (4.8%) than 2004. This result would be explained by an increase in the volume of exports, which would go from 21,560 thousand quintals in 2004 to 22,640 thousand quintals in 2005. Finally, regarding oil, a decrease in its export value would be expected, going from US\$ 183.7 million in 2004 to US\$173.2 million in 2005, as a result of the recuperation of the conditions of the offer of the international market and the reduction of the prices of crude oil.

The *CIF* value of the imports would be at US\$8,132.3 million, higher by US\$503.4 million (6.6%) from 2004. This result would be associated, mainly, to the growth rhythm projected in the economic activity for 2005. In the value of the imports the increase of machinery, equipment and tools would be very important (8.8%); in raw materials and intermediate products (8.5%); in construction material (7.5%); and in consumption commodities (6.8%).

As a result of these projections, the trade balance would register a deficit of US\$4,962.1 million, higher by US\$288.9 million (6.2%) than 2004.

As to the balance of services, a surplus balance of US\$614.9 million is foreseen, higher by US\$25.9 million (4.4%) than the surplus in 2004, mainly by the increase of the income of non-factorial services, associated to the increase of the foreseen surplus in the amounts of tourism and traveling (9.4%) and in the different services, that includes commodities for transformation –culture- (2.8%). Transfers are expected to register net income for US\$3,165.9 million, higher by US\$192.2 million (6.5%) than 2004, since higher by come of family remittances (6.7%) and donations (5.0%) are expected.

Regarding the capital and financial account a surplus balance of US\$1,046.3 million is expected; lower by US\$ 564.2 million (35.0%) than 2004.

In this result is the decrease of the official and bank capital by US\$185.6 million (80.4%), mainly, because of a lower placement of bonds with foreigners. It would be expected that the surplus balance of the account of private capital would be reduced by US\$381.2 million (30.7%) because the expected increase of direct foreign investment would not be enough to compensate the reduction of capital to medium and long term, but mainly, the reduction of capital to short term.

The transfers of funds, would increase in US\$ 2.6 million (1.9%) being in US\$ 141.2 million, because of the donations that the government would receive from the rest of the world.

As a result of the behavior of the current account and of the capital and financial account, as indicated, a reduction of the international monetary reserves of US\$135.0 million would be expected. It is important to mention that because of the reduction in the level of these reserves and the increase in the imports of commodities and services, the number of months of imports of financing commodities with reserves would be of 4.6, lower than the value of 2004 (5.0). However, according to international standards, this indicator would keep showing a stable external position.

Also, if the short term obligations expressed in US Dollars (test of sensibility) of the governments are deducted, it would still be over the suggested limit by the international standards<sup>61</sup>, because this would be around 3.3 months of imports.

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<sup>61</sup> The level of international monetary reserves should be enough to finance at least three months of imports of commodities .

## BALANCE OF PAYMENTS

YEARS 2004-2005

-In million of US Dollars-

<b>I. CURRENT ACCOUNT (A+B+C)</b>				
A. TRADE BALANCE				
1. <i>FOB</i> Exports				
Main products				
Other products				
2. <i>CIF</i> Imports				
B. SERVICES				
1., Net Factorial				
2., Net Non-Factorials				
C. TRANSFERS (Net)				
<b>II. CAPITAL AND FINANCIAL ACCOUNT (A+B+C)</b>				
A. FUNDS TRANSFERS				
ACCOUNT OF OFFICIAL AND BANK				
B. CAPITAL				
C. ACCOUNT OF PRIVATE CAPITAL				
<b>III. BALANCE OF THE BALANCE OF PAYMENTS</b>				
Net Reserves (-increase)				

### b) Of the balance of payments for 2006.

In the context commented on the perspectives of world economy, for the balance of payments of Guatemala for 2006, a scenario in which an increase of net international monetary reserves is estimated by US\$210 million is stated, because the surplus balance of the capital and financial account, of US\$1,443.1 million, would be enough to finance the deficit in current account projected for 2006, which would be of US\$1,233.1 million, equivalent to 3.9% of the GDP (4.0% in 2005).

Regarding the *FOB* value of exports, this would be US\$3,405.3 million, higher by US\$ 235.1 million (7.4%) regarding 2005. This result would be determined by the increase in the value of exports of the main products of exportation by US\$81.0 million (7.5%) and by the increase in value of the exportation of other products (to Central America and the rest of the world) by US\$154.1 million (7.4%). The sales to Central America would increase in US\$94.0 million (7.0%). The other products destined to the rest of the world, would increase in US\$ 60.1 million (8.0%).

The *CIF* value of the imports would be at US\$ 8,661.1 million, higher by US\$ 528.8 million (6.5%) from 2005. This result would be mainly associated, to the growth projected in the economic activity for 2006 (3.3%)<sup>62</sup>. In the value of the imports; the increase would be very important of the following amounts: raw materials and intermediate products (6.9%); in construction material (6.9%); consumption commodities (6.4%); and machinery, equipment and tools (6.3%).

As a result of the projections of Guatemalan commerce for 2006, the trade balance would register a deficit of US\$ 5,255.8 million, higher by US\$ 293.7 million (5.9%) than 2005.

Regarding the balance of services, a surplus balance of US\$ 621.1 million is foreseen, higher by US\$ 6.2 million (1.0%) than the surplus in 2005, mainly by the increase of the income of non-factorial services, associated to the increase of the foreseen surplus in the amounts of tourism and traveling (10.0%) and in the different services, that includes commodities for transformation –multure- (4.6%).

Transfers are expected to register net income of US\$ 3,401.6 million, higher by US\$ 235.7 million (7.4%) than 2005, since higher income of family remittances are expected.

Regarding the capital and financial account a surplus balance of US\$ 1,443.1 million is expected, higher by US\$ 396.8 million (37.9%) than 2005. In this result is the increase of the official and bank capital for US\$156.2 million, because of a higher placement of bonds with foreigners and because of higher disbursements of external debt. It would be expected that the surplus balance of the account of private capital would increase in US\$ 236.9 million (27.5%) because of the expected increases of direct foreign investment and of the medium and long term capital.

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<sup>62</sup>Passive scenario elaborated by the econometric projection based on the recent historic behavior of the economic growth of the country.

The transfer of funds, would increase in US\$ 3.7 million (2.6%) located at US\$144.9 million, associated to donations that the central government would receive from the rest of the world.

As a result of the current account and of the capital and financial account, as indicated, an increase of the net international monetary reserves of US\$210.0 million would be expected. With an increase in the level of these reserves and the increase projected in imports of commodities, the number of months of imports of financing commodities with reserves would be of 4.6, lower than the value of 2005.

## BALANCE OF PAYMENTS

YEARS 2005-2006

-In million of US Dollars-

<b>I. CURRENT ACCOUNT (A+B+C)</b>				
A. TRADE BALANCE				
1. <i>FOB</i> Exports				
Main products				
Other products				
2. <i>CIF</i> Imports				
B. SERVICES				
1. Factoriales, Net				
2. Non Factoriales, Net				
C. TRANSFERS (Net)				
<b>II. CAPITAL AND FINANCIAL ACCOUNT (A+B+C)</b>				
A. FUNDS TRANSFERS				
ACCOUNT OF OFFICIAL AND BANK				
B. CAPITAL				
C. ACCOUNT OF PRIVATE CAPITAL				
<b>III. BALANCE OF THE BALANCE OF PAYMENTS</b>				
<b>Net Reserves (-increase)</b>				

Finally, since it is very important, it is good to make some considerations about the deficit in current account.

In Guatemala, the deficit in current account of the balance of payments, as a proportion of the GDP, is placed at levels of around 5% during the last five years. In 2004, it is expected that said variable will be placed at 4.1%, which means that for 2005 the efforts to reduce it must continue.

The deficit in current account represents a higher increase of external liabilities than the increase of foreign liabilities. This equilibrium implies that the domestic economy, in a specific accounting period, results a debtor of the rest of the world.

In the determination of the external position of a country many internal as well as external factors are involved, which means that, if the deficit is temporary, the country must have resources to finance said unbalance. On the contrary, if the external deficit is permanent, it must be fixed up with the use of the instruments of the economic policy that the authorities have available.

From the previor, it is necessary to analyze the maintenance of the deficit in current account and, if necessary, the way in which it can be remedied. There are two options of policy that make the moderation of this deficit easier: the policies of reduction and the policies of deviation of expenses. The first ones look to the modification of the level of aggregate expenses by increasing taxes of the reduction of public expenses; while the second policies try to alter the composition, of production and consumption, between exchangeable and non-exchangeable commodities, by modifications in the nominal exchange rate.

It is important to mention that, even when a deficit represents a debt position toward the rest of the world, this position is not necessarily an unwanted situation *per se*, because it may be the result of economic processes designed to increase the productive capacity of the domestic economy, aspect that in the future may prove to be greater export capacity of the country and therefore, turn it into an international creditor. The following examples justify the existence of a deficit in current account, even if they are permanent or temporary, but always maintainable: a) when the loans are invested in profitable activities that allow the generation of enough resources to cover the payment of interests and the principal; b) when there is the presence of abundance of external capitals, especially of direct foreign investment; c) when a temporary fall in the national production is experimented; and, d) when the

levels of protection are reduced by the decrease of the tariff and not tariff barriers.

The estimation of an optimum result for the current account of the balance of payments is very complex, because this result may change over time, because of the variations in the conditions of the economic activity. Besides this technical difficulty, on some occasions, the authorities may find themselves not able to reach this result, because of the presence of external and internal shocks, for example.

In the academic field there is no consensus as to the magnitude of a deficit in sustainable current account; some experts like Sebastian Edwards<sup>63</sup> agree that a deficit in current account of the sustainable balance of payments for developing countries must be between 3% and 4% of the gross domestic product. This expert recently confirmed that for the specific case of Guatemala said deficit should be at 2%<sup>64</sup>; different from Frenkel<sup>65</sup> and others that say 5% may be the ideal doorstep and states that countries like New Zealand have had a long time deficit even higher than 5% and have not suffered exchange crisis, while countries like Israel have had problems with lower unbalances to the mentioned number.

In summary, the macroeconomic adjustment must be considered as the obtaining of a viable relation between income and aggregate expense, showed in the current account of the balance of payments. In many cases, the magnitude of the deficit is in current account and therefore, the possible excess of expense over income is restricted by the availability of financing; this means, by the level of the international monetary reserves, the internal credit and the external resources. Being like this, the proper management of the monetary and fiscal policies has an important role in the mechanism of moderation of the aggregate demand.

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<sup>63</sup> *Perspectivas y Desafíos de la Macroeconomía en Guatemala*, document elaborated for the *Comité Conjunto*, Guatemalan Government and *Comité Coordinador de Asociaciones Comerciales, Industriales y Financieras –CACIF–*, June, 1999.

<sup>64</sup> Sebastian Edwards, *Política Monetaria y Estabilidad Macroeconómica en Guatemala*, November 2004.

<sup>65</sup> Frenkel, J., A. Rasín, and Chi-Wa Yuen. (1996): *Fiscal Policies and Growth in the World Economy*. Cambridge. MIT Press.



### **3. Of the fiscal sector**

In general terms, the impact that the fiscal deficit has in the short and long terms in the main macroeconomic variables (inflation rate, exchange rate and interest rate) depend basically on its magnitude and on the way that the same is financed.

Regarding its magnitude, it is essential that the fiscal deficit is kept at moderated levels to prevent negative macroeconomic repercussions that may turn into a lost of effectiveness of the monetary policy and in the difficulty of the central bank of fulfilling its main objective, which is to promote the stability of the general level of prices.

Regarding the financing of the fiscal deficit, this may be of internal and external origin. When making use of the internal financing, the availability of these resources in the financial market implies removing the credit from the private sector and therefore, to restrict the productive investment, because when public debt is issued, the government competes in the financial market with the issues of private securities, aspect that causes an elevation in the level of short term interest rates and then, in the level of long term interest rates, which are relevant to finance projects of productive investment.

For the previously expressed, it is important to indicate that the achievement of the macroeconomic stability and the control of the general level of prices will be sustainable in time, only if the monetary policy continues to be supported by a healthy fiscal policy that promotes the consolidation of public finances. It is like this because if the weight of macroeconomic stabilization falls only on the monetary policy, which implies the intensive use of open market operations, there is the risk not only to generate pressure over the interest rate, but to compromise the long term fulfillment of the main objective of the monetary policy. Like this, the main objective of seeking the stability of the general level of prices, as well as the possibilities to moderate the behavior of the interest rates and generate the conditions to promote the increase of the

economic growth rhythm in mid term; depending mainly on the support that the fiscal policy gives to the economy.

**a) Estimation of the performance report for 2005.**

According to estimates of the *Ministerio de Finanzas Publicas* [Equivalent to the Department of the Treasury], for 2005 the performance report would register a growth in income of Q2, 988.8 million (13.6%) regarding the estimate for the closing of 2004; while the expense would be increased by Q4, 366.1 million (17.5%) regarding the estimate for the closing of 2004, underlining the highest expense of capital, which would grow in 17.9% regarding the closing estimated for 2004. As a result, the fiscal deficit will be at Q 4, 295.2 million (equivalent to 1.8% of the GDP) higher than the expected for the closing of 2004 (Q 2,917.9 million, equivalent to 1.4% of the GDP). Regarding the financing of the deficit, the net internal financing would be Q2, 621.4 million, higher by Q 1,398.6 million (114.4%) in relation to the estimate for the closing of 2004; the use of net external financing is also expected for Q 222.2 million, as a result, on one hand, of the disbursements for Q1, 964.7 million and amortizations for Q 1,742.5 million. Finally, a use of cash resources is estimated for Q 1, 451.6 million, which would constitute a monetization of the central government, which would have its major impact in the fourth trimester of 2005, turning into a major expense to have in that period.

**CENTRAL GOVERNMENT  
PERFORMANCE REPORT  
YEAR 2004-2005  
-Million of Quetzales-**

CONCEPT	2004 e/	TRIMESTER				2005 e/	Variations	
		I	II	III	IV		Absolute	Relative
I. INCOME AND DONATIONS								
A. Income (1+2)								
1 Current income								
a. Fiscal								
b. Not fiscal								
2 Income of Capital								
B. Donations								
II. TOTAL OF EXPENSES								
A. Of performance								
B. Of capital								
III. SURPLUS OR BUDGET DEFICIT								
IV. NET FINANCING								
A. Internal								
B. External								
C. Variation of cash								
(-) increase (+) decrease								

Source: *Ministerio de Finanzas Publicas*

e/ Estimate

**c) Estimation of the performance report for 2006.**

According to estimates of the *Ministerio de Fianzas Publicas* [Equivalent to the Department of the Treasury.], contemplated in the multi-annual budget 2005-2007 of the *Project for the General Income and Expense Budget for the State for the 2005 Fiscal Year*, the performance report for 2006 would register an increase in the income of Q 2,477.8 million (9.9%) in relation to the estimate for the closing of 2005; while the total expense would register a growth in Q 2,487.5 million (8.5%) in relation to the estimate for the closing of 2005. In this order, the fiscal deficit would be at Q 4,304.9 million (equivalent to 1.6% of the GDP) lower than the expected for the closing of 2005 (1.8% of the GDP). Regarding the financing of the deficit, this would be covered by net internal financing in the amount of Q 3,891.7 million, higher by Q 1,270.3 million (48.5%) than the estimated for 2005; and by net external financing in the amount of Q 413.2 million, result of a disbursement of Q 2,200.0 million and amortizations of Q 1,786.8 million.

**CENTRAL GOVERNMENT  
PERFORMANCE REPORT  
YEAR 2004-2005  
-Million of Quetzales-**

CONCEPT	2004 e/	TRIMESTER				2005 e/	Variations	
		I	II	III	IV		Absolute	Relative
I. INCOME AND DONATIONS								
A. Income (1+2)								
1 Current income								
a. Fiscal								
b. Not fiscal								
2 Income of Capital								
B. Donations								
II. TOTAL OF EXPENSES								
A. Of performance								
B. Of capital								
III. SURPLUS OR BUDGET DEFICIT								
IV. NET FINANCING								
A. Internal								
B. External								
C. Variation of cash								
(-) increase (+) decrease								

Source: *Ministerio de Finanzas Publicas*

e/ Estimate

#### 4. Of the monetary sector

The evidence in the last years of the last decade demonstrated that a forced relaxation of the monetary policy, together with the absence of fiscal discipline, may drive to an exchange crisis, to the loss of international monetary reserves and to the weakness of the banking system<sup>66</sup>. A new immoderate expansion of credit to the private sector in an artificial manner would only result in a new debilitation of the external sector and in an increase of the risk exposure of the banking system.

In this sense, a disciplined monetary policy must be strengthened, which with the preferred use of indirect instruments of monetary control, fortifies the effectiveness and efficiency of the monetary management of the central bank. This monetary policy must focus on the acquisition of the stability in the general

<sup>66</sup> In 1998, the bank credit to the private sector registered a growth rate of 27.7%. In 1999, the inter annual depreciation of the exchange rate was of 14.2%, the highest in the history of the country and the deficit in current account as proportion of the GDP was 5.5%.

level of prices, so the inflation rate must continue being the benchmark of the economy, in a frame of exchange flexibility.

**a) Monetary sector for 2005<sup>67</sup>.**

The projections of the monetary sector for 2005 have consistency, on one hand, with the inflation goal foreseen (4%-6%) and with the growth of the real activity, that is estimated in 3.2% and on the other hand, with the estimates of the external and fiscal sectors. With that basis, the demand of monetary issue for 2005 would register an inter-annual growth rate of around 8.0% in relation to the balance estimated in this variable to the closing of the previous year. In that context, the total means of payment (means of payment in local currency plus means of payment in foreign currency) would grow between 10% and 12%, while the banking credit to the private sector would grow between 11% and 13%, both in inter-annual terms.

**b) Monetary sector for 2006.**

To give continuation to the actions of the monetary, exchange and credit policy, in the framework of a design plan of inflation goals policy, it is convenient to have projections of the monetary program for 2006. Such projections keep consistency, on one hand, with the objective of keeping a moderate inflation (4%-5%) and with a growth in the real activity, which could be 3.3%. Based on this, the demand of monetary issue for 2006 would register an inter-annual growth rate of around 8.0% in relation to the balance estimated in this variable to the closing of 2005.

As it was mentioned, it would be expected that the net international monetary reserves would increase by US\$ 210.0 million, which would be equivalent to a monetary expansion of external origin for the equivalent of Q 1,679.0 million.

According to the previous information, the Net Internal Assets (NIA) of *Banco de Guatemala* should increase around Q 10,450.0 million. In the NIA of *Banco de Guatemala* it is estimated that the use of the deposits of the central

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<sup>67</sup> The detail of the monetary program associated to these perspectives are on page 125.

government during the year, will allow these at the end of the year to keep its same balance as the previous year's closing.<sup>68</sup>

For 2006 it is expected that the cost of the monetary policy will continue creating the main source of inorganic monetization around Q 885.0 million in the year. It is important to mention that in this factor the main disbursement would still be the interests of the open market operations that are paid for by the effort of neutralizing the primary liquidity.

The main factor of liquidity contraction of the NIA of *Banco de Guatemala* would be the deposits in the central bank from the banks of the system, because of the expected growth effect of the financial intermediation that would allow an increase of the deposits of the public in the banks of the system, which at the same time, would generate the creation of reserves for Q 783.0 million.

Consistent with the design and execution of the monetary program, the closing factor of the NIA would be the open market operations. In this sense, and considering the behavior of the monetizing and demonetizing factors, as well as the demand of monetary issue, *Banco de Guatemala* should increase the level of open market operations around Q 1,010.0 million.

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<sup>68</sup> Estimate according to the multi annual fiscal program content the *Proyecto de Presupuesto de Ingresos y Egresos del Gobierno Central para 2005*.

## MONETARY AND FISCAL PROGRAM 2006

in millions of Q.

Concept	TOTAL ANNUAL
<b>FISCAL ACCOUNTS</b>	
Increases	27492
Disbursement	31796
Current	21982
Capital	9815
Deficit	4305
(% of the GNP)	1.6
External Financing NET	413
Internal Financing NET	3892
Till Variation	0
<b>A. MONETIZING (+) AND DESMONETIZING (-)FACTORS</b>	
<b>I. Net Reserves International</b>	<b>1679</b>
RIN US\$	210
<b>II. Net Internal Assets</b>	<b>10467</b>
1. Central Government	0
2. Rest of the Public Sector	0
3. Position with banks	-783
Credit to banks	0
Banking Reserve	-783
4. Other Net Assets	1277
Expense and products	885
Others	392
5. Maturity of OMAs	9973
<b>III. CREATION OF LIQUIDITY</b>	<b>12146</b>
<b>B. DEMAND OF MONETARY ISSUE</b>	<b>1161</b>
<b>C. EXCESS (-) OR LACKING (+) LIQUIDITY (B-III)</b>	<b>-10985</b>
<b>D. PLACEMENT OF OMAs</b>	<b>10985</b>
<b>E. NET PLACEMENT OF (-) OMAs</b>	<b>-1012</b>

It is important to mention that with the expectations described to medium term consistent with a fiscal balance that is shown by the maintenance of the balance of the deposits of the government in the central bank, the favorable conditions for the macroeconomic stability in medium and long term would be consolidating.

### 5. Other aspects to consolidate the macroeconomic stability

#### a) Coordination with the financial policy of the State

The efficiency and effectiveness of the macroeconomic policy for 2005, demands the coordination of the operative proceedings of the monetary policy with the decisions of till that the central government and the main branches and entities of the public sector will adopt.

To continue with proper coordination of the financial management of the public sector, especially between the central government and the central bank, the success of the monetary policy is easier and the frequency and magnitude of the participation of the central bank in the money market to neutralize excess liquidity by open market operations is reduced.

**b) Implementation of financial legislation.**

In 2005 it must continue to look after the consolidation of the regulatory framework of the financial system through the implementation of actions oriented to fortify the corresponding laws and regulations. In this sense, it can be mentioned that Professor Sebastian Edwards, for Guatemala, proposed that through an active and modern supervision the direct and indirect undermining of the foreign currency of the banking institutions must be prevented. Because of this, it is important to begin actions so the domestic financial system will not be vulnerable to substantial fluctuations in the exchange rate. This implies that, through a prudential and proper normative, it may be guaranteed that the clients that borrow in foreign currency will be able to pay even if an important depreciation of the local currency occurs. Also, the implementation of the monetary and banking reform requires the central bank to constantly follow up on the evolution of the banking variables, with the purpose of considering the impact that these may have in the execution of the monetary policy and vice versa.

**c) Subscription for 2005 of a Stand-By Agreement with the International Monetary Fund (IMF).**

It is expected that in 2005 the proceedings to achieve the subscription of a new Stand-By agreement with the IMF will continue. This agreement will constitute support to the economic government program and to the monetary, exchange and credit policy strategy determined by the Monetary Board for 2005. In this sense, the subscription of this agreement, will contribute to the consolidation of the macroeconomic stability, to improve expectations of the economic agents, to reduce the country risk, and to promote the national and international investment, as well as to reaffirm the commitment of the monetary



and fiscal authorities to keep the economic policies consistent and coherent during 2005.

### **III. GOALS, MEASUREMENTS AND ACTIONS FOR THE EXECUTION OF THE MONETARY POLICY**

#### **A. MAIN OBJECTIVE.**

The main objective of the Monetary, Exchange and Credit Policy for 2005, established according to the law, is to contribute to the creation and maintenance of the most favorable conditions for the proper development of the national economy, for which the monetary, exchange and credit conditions will be given to promote the stability in the general level of prices.

Additionally and in favor of the achievement of the main objective, the moderation of the volatility of the money markets and of the exchange market must be continued as it has since 2000.

For the achievement of said objective it is important to say again that a cautious monetary policy must be complemented by a disciplined fiscal policy.

#### **B. POLICY GOAL.**

In reference to the inflation goal for 2005, it is stated that this should be between a rank of 4% and 6%. Here the following considerations are important:

- a) it is estimated that the inflationary rhythm to December 2004 is at 9.3%, but it is right to mention that this level is because of an exogenous factor of temporary nature, like the shock of international oil prices observed during the year. This phenomenon was generated by demand and offer factors that at the end of the present year have begun to dissipate. The experts in the subject estimate that in 2005, when the rhythm of the economic growth in the United States of America and in the People's Republic of China decelerate; there will be a decrease in the pressure over the international prices of oil given by the

factors of demand, which are considered to be the most important in the formulation of these prices. The experts also consider that the factors of offer are already beginning to moderate themselves with the normalization of the production in Venezuela and Nigeria; the resolution of the conflict between the Yukos oil company and the Russian government; and the overcoming of the problems of the supply of crude oil in the Gulf of Mexico. However, it is important not to lose sight as the uncertainty of geopolitics continues, which limits some crude oil productive regions, reason why the experts estimate that the reduction in its price to return to the normal levels will be carried out in a medium term period<sup>69</sup>. Considering the projections of the behavior of the oil price for 2005, based on the information of the future market of the New York Stock Exchange, a passive projection was carried out (does not include additional measurements of monetary policy) of the general level of prices for December 2005, estimating that for that date the inflationary rhythm is around 6%. It is important to state that these projections do not include the fact that, according to IMF, for 2005 the inflationary rhythm of the United States of America would be the same registered in 2004 (3%) and that this rhythm would decelerate in the rest of the countries commercially associated with Guatemala, which would also contribute to the reduction of pressure of imported inflation.

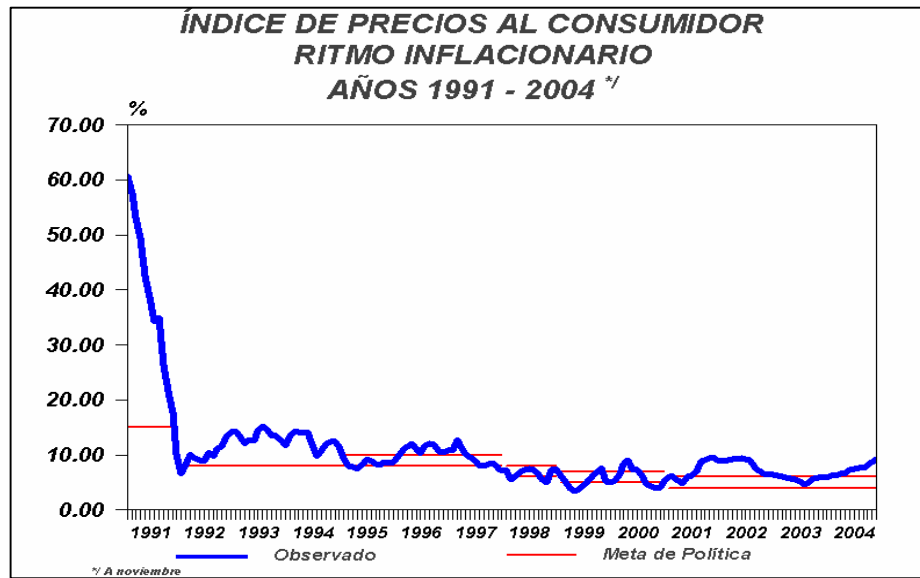
- b)** Since 1991, the Monetary Board has been determining an annual goal of inflation with a declining tendency, aspect that may be observed in the following graph:

### **CONSUMER PRICE INDEX INFLATIONARY RHYTHM**

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<sup>69</sup> To December 8<sup>th</sup>, 2004, in the future market of the New York Stock Exchange, the price of the contract for the barrel of oil, for December of each year, was quoted: 2005 US\$41.63, 2006 US\$39.64, 2007 US\$ 38.64, 2008 US\$ 37.79, 2009 US\$ 37.24 and 2010 US\$ 36.89.

## YEARS 1991-2004



As may be observed, the monetary policy, through the determination of the annual goals of inflation, has given a message to the economic agents of its commitment in the stability of the general level of prices, which has been materialized in the announcement of goals of inflation with declining tendency, without stating an inflationary goal higher than the one of the previous year, with the possible exception of 1995.

This means that the effectiveness and efficiency of monetary management has been resting in its credibility. In a monetary plan of clear inflation goals toward which Guatemala is being led, one of the main assets that the central bank has, is credibility, because it makes it possible to constitute the inflation goal in a benchmark for the general economy and for the expectations of the economic agents.

This implies that the firm transition for a plan of clear inflation goals requires the reinforcement of the credibility of the monetary policy, for which the adoption of a goal-range between 4%-6% is the most recommended, because the adoption of a higher goal could be interpreted by the economic agents as a weakness of the central bank in reference to the effective use of its monetary

policy instruments to control domestic inflation, considering the exogenous factors that affect the inflation of 2004, especially the international price of oil, which tends to dissipate.

The use of a higher goal than the mentioned could also be foreseen by the public as a lack of commitment of the monetary authority to reach the medium and long term goals, which may imply a loss of credibility of the clear inflation goal plan, because this monetary plan not only sustains the short term goals, but the congruency of the short, medium and long term goals.

The presented rank of inflation would allow the projected increase of the monetary issue to be consistent with the expected production growth, which would help prevent any excess of the inorganic monetization that comes from the substantial deviations of the defined goals.

The election of a realistic inflation goal strives toward the monetary management to turn into a helping factor for good development of the economy, because if the elected goal was a significant inflation rate lower than the foreseen rank, which is according to the inflationary rhythm expected for 2005, an insufficiency of liquidity could be generated in the economy, which would hold the monetary offer of being compatible with the expected economic growth, with the inhibition effect in such growth and in the employment generation. On the other hand, a higher inflation rate could have an opposite effect with the loss of credibility suffered by the monetary policy and, by the severe distortions to the elevated inflation rates.

The established rank as goal for the monetary policy searches for the increase of the credibility of the central bank and to positively induce the expectations of the economic agents, to provide a stable scenario for the agents to make their production, consumption, savings and investment decisions properly. For the follow up to the monetary policy of the goal a calculation of the projected inflation (intermediate goal) will be estimated periodically with a horizon of twelve months. This estimation will be executed by methods of temporary series, when the structural pattern is finished.

### **C. INDICATIVE VARIABLES OF THE MONETARY POLICY**

The indicative variables have the orientation of the actions of the monetary, exchange and credit policy as their objective, in a way that it allows an evaluation as the goals are achieved. Next, the indicative variables proposed to be given follow up in 2005 are presented; these include some adjustments and modifications regarding the ones used until now.

#### **1. Interest rate.**

In 2005, with the idea of looking for stabilization in the money market and evaluate the conditions of competitiveness of the internal financial market in relation to the external financial markets, the follow up of the parameter rate (adjusted Taylor Rate), as well as the parity interest rates, which are commented on next.

##### **a) Parameter rate.**

The Taylor Rule is an indicator used by many central banks to orient the participation decisions in the money market, since it shows the adjustments in the interest rate by inflation and by excess of demand which result compatible with the main objective of the monetary policy. In Guatemala, it has been considered convenient to add an adjustment for exchange movements, for which it has been called 'Parameter Rate'<sup>70</sup>.

Since several years ago, the *Banco de Guatemala* has been intensifying necessary efforts to carry the design and execution of the monetary policy in a plan of clear inflation goals, giving follow up, to the interest rate from the Parameter Rate. It may be emphasized that the totality of the countries that use the plan of clear inflation goals, use variables for the short term interest rate as a guide, because this shows the intentions of the monetary authorities on the attraction or accommodation of liquidity in the economy through the use of open market operations as a main instrument for the monetary policy. In practice, the use of the interest rate in a system of clear inflation goals reduces the independence of the monitoring or the follow up of a specific monetary aggregate (for example the restricted or expanded offer of money). Currently

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<sup>70</sup> | algebraic form the Parameter Rate is defined as: FORMULA.

and since the financial innovations have modified the link between the monetary issue and the behavior of inflation, at least in the short term, the calculation of the Parameter Rate fulfills the requirements needed to be used as a guide variable of the bias of the policy in a plan of clear goals, so the economic agents, by observing the changes, may previously know of the restriction or laxness of monetary policy actions.

For the follow up of the Parameter Rate, it is proposed that this should be compared with the average interest rate of the open market operations, rate which adds the total amounts and terms of the open market operations. This is proposed in a situation of comparison that is currently made between the Parameter Rate and the rate of repurchase agreements of 8 to 15 days. This is because on one hand, the rate of repurchase agreements for these terms; the operated amounts are decreased and on the other hand, that these transactions are not made every day; while the average interest rate of the open market operations, shows a better way of behavior of the primary liquidity of the economy.

**b) Parity rate.**

Next to the parameter rate it is convenient to have another reference indicator over what could be the behavior of the interest rate compatible with the monetary program, for which an indicator may be obtained to compare the competitiveness of the domestic interest rate and the external rates, so evaluations may be made to see if the level of domestic interest rate leads to a drain or income of capital that could generate instability in the exchange rate. It is convenient to follow up on the evolution of the parity interest rates (asset and liability).

The calculation of a parity interest rate is made up of three elements: a) a comparable external interest rate; b) a fee for country risk; and c) a fee for exchange risk. Regarding the first element currently, for the comparable external interest rate the London Inter-bank Offered Rate (LIBOR) is used for the parity asset rate and the London Inter-bank Bid (LIBID) for the liable parity

rate. In relation to the fee for country risk, this is estimated by the calculation of the difference between the average yield rates of the different allocations of Eurobonds in the international market that the country has made (issues 1997, 2001, 2003 and 2004) and the yield rate of the treasury bonds of the United States of America, both for the same term. The fee of the exchange risk is estimated by an approximation of the expectations of depreciation or appreciation in the future markets; this means that the percentage variation between the exchange rate quoted in the future market to one year and the spot exchange rate (exchange rate negotiated in the institutional market of foreign exchange on the date of the analysis).

The country risk and the exchange risk fees are still valid in general terms because it is considered that the methods used to calculate them are the best approximations available. However, regarding the external rates, it is estimated that the chosen LIBOR and LIBID rates do not properly show the cost of opportunity of national investors, because London is not the financial market that has the most operations due to its proximity and importance, but the market of the United States of America is the market with the most operations. So it is considered that the PRIME rate could be a better approximation for the external asset rate<sup>71</sup> and the rate of deposits for a six month term in the domestic market of the United States of America for the external liable rate. It is also suggested that when comparing the external rate with the parity asset or liable rate, these two rates should have an adjustment for a margin of fluctuation, which could be a standard deviation of the behavior of the respective parity rate<sup>72</sup>.

## **2. Monetary issue**

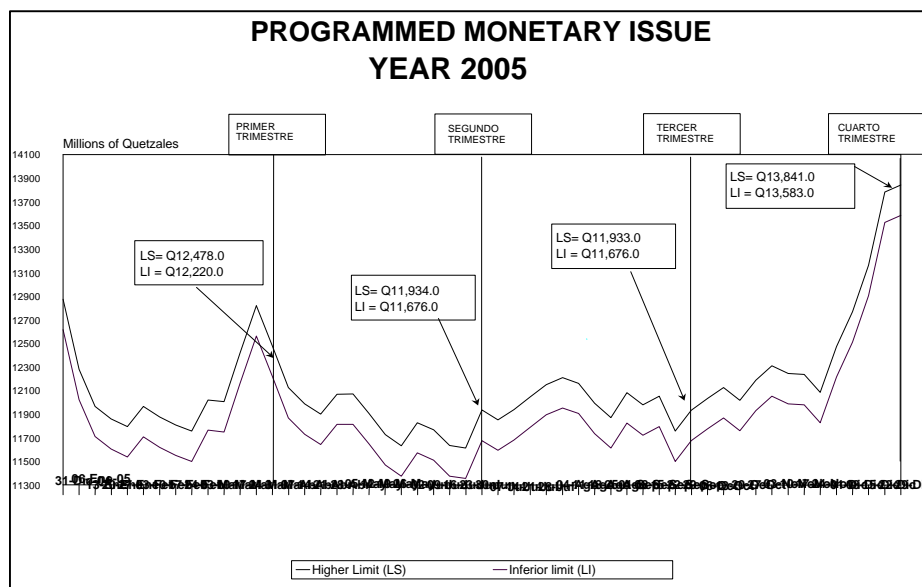
The monetary issue constitutes an indicator of the level of existing primary liquidity in the economy. Its follow up and projection are useful to anticipate possible pressures over the general level of prices.

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<sup>71</sup> It is suggested to eliminate the parity asset rate as an indicative variable because, on one hand, in the present year it continually showed that the monetary policy should be relaxed and on the other hand, that the movements in the capital flows to the country obey the changes in the liable interest rate.

<sup>72</sup> According to the information between December 31<sup>st</sup>, 2003 and November 18<sup>th</sup>, 2004, a deviation of 0.79 percentage points corresponds to the parity liable rate.

Currently a punctual estimation and a rank estimation of the monetary issue are executed, according to the inflation goal and the foreseen growth of the economic activity. However, since the inflation goal is a rank, it is important to consider the levels of issue will fluctuate between a rank; normal, related to the expected inflation goal in this proposal of monetary, exchange and credit policy.



The projections of the monetary program for 2005 are consist, on one hand, with the foreseen inflation goal of (4%-6%) and with real activity growth which is estimated at 3.2% and, on the other hand, with the estimation of the external and fiscal sector. Based on the above written, the demand of monetary issue for 2005 will register a rate of inter-annual growth rounding an 8.0% regarding the annual salary of the mentioned float close of 2004.

When considering the expectations of the external sector and based on the behavior of the Net Internal Assets from *Banco de Guatemala*, compatible with the estimated demand of monetary issue and with the increase of prices, we will expect that for 2005 it will generate a monetary contraction of external origin for an amount of Q1, 079.0 million, corresponding to a decrease in the level of the international net reserves of US\$135.0 million. It is proper to indicate that the reduction of the *RIN* will be explained, mainly, by the demand of currency to maintain the programmed payment of services of the internal and



external debt, in foreign currency, the public non financial sector, because of the payment of the service of the public sector debt which is bonus is also estimated in one larger negotiation than the programmed maturity date with residents and non residents.

Taking the behavior indicated from the *RIN* seriously, we could expect that the Net Internal Assets from the *Banco de Guatemala* will monetize around Q11, 749.0 million. Within the *AIN* [For its acronym in Spanish.] from *Banco de Guatemala* is estimated that the deposits made by the consolidated public sector will constitute the main factor of monetization by Q1, 975.0 million (Q1, 452.0 million from the central government and Q523.0 million from the rest of the public sector), consisted on the estimated sources of the finance deficit for year 2005.

For 2005, the cost of the monetary policy will continue constituting as an inorganic currency source, which is estimated could reach around Q1, 063.0 million in the year. It is important to mention that within this factor the main disbursement is contained in the interests of the open market operations which are paid derived from the effort of neutralization of primary liquidity. It is also estimated that by the month of October around Q38.0 million will be received due to interest from Treasury Bonds<sup>73</sup> that the *Ministerio de Finanzas Públicas* [Roughly equivalent to the Department of the Treasury.] transfer during the month of April to *Banco de Guatemala*, to cover the nets faults of the institution registered during 2003. Among the contractions of the liquidity factors of the *AIN* [For its acronym in Spanish.] of *Banco de Guatemala*, will be the deposits from all the banks in the system into the central bank, due to the effect of growth expected from the financial intermediation that would allow an increase of the deposits from the public in the banks of the system, which at the same time, will generate reserves made up of around Q634.0 million.

On their behalf, within the non classified assets a monetization of around Q50.0 million was estimated, preventing the use of resources from the Capitalization Bank Fund.

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<sup>73</sup> Issued at a long term and on interest rate of the market

Consistent with the design and the execution of the monetary program, the closing factor of the AIN [For its acronym in Spanish.] would be the open market operations -OMAs-. Based on this, and considering the behavior of the monetization and demonetization factors, the *Banco de Guatemala*, should increase its primary neutralized liquidity balance in Q741.0 million.

When considering the designed scenario and execution of the monetary program, the factors of contraction and expansion of primary liquidity every trimester, for the period from January-March 2005, can expect the *RIN* to decrease by US\$66.0 million, therefore, the idea of maintaining the congruence with the demand of the programmed monetary issue, the *Banco de Guatemala* is required to increase its balance of OMAs around Q1, 100.0 million. During the second trimester a contraction of liquidity from external origin would be expected, derived from a loss of *RIN* by US\$7.0 million. Due to that and the contraction of liquidity that the central government and the banks of the system would generate, it could be expected that the *Banco de Guatemala* inject primary liquidity by Q666.0 million. During the third trimester the decrease will continue at a level of *RIN* by US\$56.0 million and we would expect a major use of the deposits from the central government, which would influence the *Banco de Guatemala*, having to contract the primary liquidity by Q546.0 million. During the fourth trimester, as a result, on the one hand, of a foreseen contraction of liquidity of external origin, equivalent to a decrease of level of *RIN* US\$6.0 million and, on the other hand, the momentary growth of the use of deposits from the central government and the significant increase of the demand of monetary issue, an injection of liquidity of approximately Q241.0 million would be necessary. It is important to indicate that due to the OMAs which constitute the closing factor of the AIN [For its acronym in Spanish.] from *Banco de Guatemala*, these should correct any diversion present in the rest of the monetization factors estimated in the trimester program for 2005.

## Monetary and Fiscal Program for 2005

In millions

Fiscal Accounts					
Increases	5291	6573	6462	6687	25014
Disbursement	6196	6517	8091	8506	29309
Circulating	4765	4606	5573	5467	20411
Capital	1431	1912	2517	3038	8898
Deficit (% of GNP)	904	-56	1628	1819	4295 1.8
Extern Net Financing	-141	103	220	41	222
Intern Net Financing	866	964	803	-12	2622
Till fluctuation	179	-1123	606	1789	1452
A. Monetize (+) and demonetize (-) factors					
I. Net International Reserves	-527	-56	-446	-50	-1079
RIN US\$	-66	-7	-56	-6	-135
II. Intern Net Assets	6231	105	1911	3502	11749
1. Central Government	179	-1123	606	1789	1452
2. Rest Public Sector	399	98	8	18	523
3. Positions with Banks	156	-332	-151	-307	-634
Credit with banks	0	0	0	0	0
Bank reserves	156	-332	-151	-307	-634
4. Other Net assets	320	391	259	477	1447
Expenses and products	316	229	241	277	1063
Others	4	162	18	200	384
Maturity of OMAs	5177	1071	1190	1524	8962
III. Creation of liquidity	5704	49	1465	3452	10670
B. Demand on monetary issue	-575	-356	-271	2169	967
C. Surplus (-) or cash shortage (+) of liquidity (B-III)	-6279	-405	-1736	-1283	-9703
D. Placement of OMAs	6279	405	1736	1283	9703

E. Placement of Net (-) OMAs	-1102	666	-546	241	-741
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### **3. Means of Payments.**

The manner of payments -M2- widely measures the money offer and constitutes an indicator of the behavior in the creation of secondary money. The inter-annual growth of the mentioned float is estimated in a way that consists with the growth of economic activities, with the goal of inflation and with the speed of circulating money.

In virtue of the above mentioned, it is estimated that for year 2005 the means of total payments (means of payment in national currency plus means of payment in foreign currency) could grow between 10.0% and 12.0%, in inter-annual terms.

Up to this date, the policy orientation which derives from the mentioned float is obtained from comparing its inter-annual float registered until today which is being analyzed with the estimated runner for the end of the year. If the registered value is under the inferior limit of the mentioned broker the orientation would be to relax the monetary policy, but if it is over the higher limit the orientation would be to restrain it. Therefore, the orientation on the monetary policy could result more precise if instead of comparing the information with the broker for the end of the year would be to compare it with the value that it must have, for the same date, according to the referred broker. Therefore, it is being proposed that for the year 2005 a broker must be used with the expected behavior for the entire year, consistent on the superior and inferior limits before mentioned.

### **4. Bank credit for the private sector.**

The credit for the private sector as a following float is important, because it measures the amount on financial resources that the economy uses to finance real activity. Based on that, following it allows having a perception of the pressures which could be generated over the interest rate, the exchange rate, the price of assets and services, and the balance of the current account on the payments balance.

It is the same as the case of the means of payments they plan to estimate a rate of total growth of the banking credit to the private sector, including national and foreign currency, in such a manner that the total of the credit for the private sector is congruent with the inflation goal foreseen by the monetary authority. Based on that, inter-annual growth rate of the banking credit to the private sector of between 11.0% and 13.0%, in inter-annual terms, is expected for the year 2005.

To this date, the policy orientation which derives from the mentioned float is obtained from comparing its inter-annual float registered until today which is being analyzed with the estimated broker for the end of the year. If the registered value is under the inferior limit of the mentioned broker the orientation would be to relax the monetary policy, but if it is over the superior limit the orientation would be to restrain it. Therefore, the orientation on the monetary policy could result more precise if instead of comparing the information with the broker for the end of the year, to compare it with the value that it must have, for the same date, according to the referred broker. Therefore, for the year 2005 it is being proposed that a broker with the expected behavior for the entire year must be used, consistent on the superior and inferior limits before mentioned.

#### **5. Expected subjacent inflation.**

The subjacent inflation shows that the float of the general level of prices has more relation with the monetary float. Its calculation is made based on the consumer price index (*CPI*) [For its acronym in Spanish.], excluding the components of the prices that have an elevated float (mostly seasonal or conjectural) that in normal circumstances, cannot be neutralized by the monetary policy. It is important to mention that to this date subjacent inflation has been used as the observed variable indicator; although, based on what has been revealed is that the subjacent inflation could be placed by the end of the year within the rank of the inflation goal already foreseen (measured in its totality by the *CPI* [For its acronym in Spanish.]) we propose that for 2005 it must be used, additionally, the expected subjacent inflation as a follow up variable. In that context, we propose the expected subjacent inflation to be

overseen, based on an ARIMA <sup>74</sup> model which contains the information of the monthly statistics of the subjacent inflation since January 1997 until the latest observed month.

### **6. Expectations of inflation of the private sector.**

Within the approved projects by the Monetary Board in 2003, was the measure of the inflation expectations. The approval on the mentioned project was based on the importance that the referred variable has in the behavior of the general price level. As a matter of fact, the expectations of inflation are defined as the public belief on future behavior of the prices in the economy. The inflation expectations that for a certain period are formed by the economic agents may, in some circumstances, substantially influence (and independently from the behavior of the fundamentals of economy) on the determination of the rate of inflation that will finally be observed during this period. In effect, it may be, that for given behavior by the fundamentals of economy, the fact that inflation expectations are high can cause a decrease of the real demand of money; such a decrease, on one hand, would generate an increase in the general level of prices and therefore, a higher rate of inflation, for the same level of nominal monetary offer. On the contrary, if the expectations of inflation were lower, this would cause an increase of the real demand of money, which would generate a minor rate of inflation, also for the same level of nominal monetary offer. It is important to indicate that its effects are manifest not only in the futures price level, but also in the interest and exchange rates.

In that sense, for 2005 we propose to include as an indicative variable, as in 2004, the prognosis of inflation coming from the inflation expectations survey of the panel of experts from the private sector. Its' follow up allows having a measure of the inflation expectations of the private sector.

### **7. Index of monetary conditions -ICM-.**

The monetary conditions index (ICM) measures, in a interrelated manner, the changes in the interest and exchange rates based on a predetermined year,

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<sup>74</sup> Model f series of autoregressive time, integrated, average, and mobile.

pointing to the directions that the monetary policy may take; it means, if it must be more or less restrictive derive on the behavior observed as well on the interest and exchange rates.

In such a manner, depreciation (appreciation) of the quetzal implies an increase (reduction) of the net exportations, so if it is not compensated with an increase (reduction) equivalent to the interest rate; it may turn into a surplus (cash shortage) of aggregate demands, which will be reflected in a fall (rise) of *ICM*, indicating a relaxation (restriction) of the monetary policy.

Considering that in the case of Guatemala the *ICM* fundamentally varies for float in the nominal exchange rate, which in some occasions respond to a seasonal behavior, it is necessary to search for a method to smooth *ICM* variations of the nominal exchange rate, to the effect that the orientation of the monetary policy given by the mentioned variability would be the one expected by the monetary authorities. The above mentioned could be estimated in a fluctuation margin for the *ICM*. With this purpose an estimation for the referred margin of fluctuation was made, establishing that the same equals a (+/-) 0.8 percentage points, in which the *ICM* may fluctuate, keeping a neutral policy.<sup>75</sup>

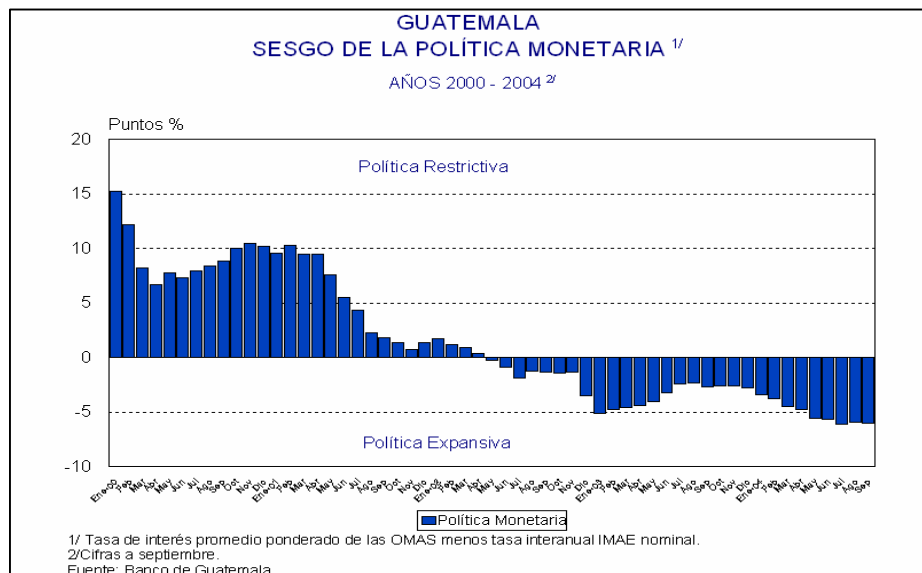
### **8. Bias indicator of the monetary policy.**

A useful measure of the bias of the monetary policy, used by the Federal Reserve System of the United States of America, is to estimate the breach between the interest rate of the federal funds, as a representative rate of the monetary policy and the growth rate of the nominal gross national product (which constitutes an approximation variable of the average rate on the return of the investment.) With the object of expanding the number of variable indicators that allows the overseeing of the performance of the monetary policy and that includes similar indicators to the one used by the Federal Reserve System of the United States of America. In this sense, this indicator may be built (considering the statistical limitations) using an estimation of the inter-annual growth rate index of the tendency period of the Monthly Economic Activity Index

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<sup>75</sup> The 0.8 percentage points correspond to a standard deviation of the Monetary Conditions Index (*ICM*) registered on average during 2003 and 2004.

(IMAE) plus the inflation rhythm and of the weighted average interest rate of the open market operations from *Banco de Guatemala*. If the breach between both variables is positive; in other words, if the rate of inter-annual growth of IMAE plus the inflation rhythm, the monetary policy is restrictive for the analyzed period, which means that the cost of the productive capital (mean by the rate of average weighted interest of OMAS), is superior to the average rate of return of investment, by which the economic agents would rather maintain their resources in the Central Bank. At the same time, if the rate of inter-annual growth of IMAE plus the inflation rhythm is higher than the interest rate of the OMAS, an analyzed expansive monetary policy could have existed for that period<sup>76</sup>, which means that the cost of productive capital (measured by the weighted average interest rate of the OMAS), is inferior to the average rate of the return of investment, by which the economic agents would not agree to maintain their resources in the Central Bank. [There appears a graph which reads:] **Guatemala, Bias of the Monetary Policy.**



The follow up in the commented variable group will serve as a reference to evaluate if the monetary policy has been restrictive or expansive.

<sup>76</sup> In algebraic manner the bias of the monetary policy is define as follows:  $SPM = [IMAE + ?]$ ; in which  $j$  = rate of average weighted monthly interest of the open market; IMAE = rhythm of growth of the economic activity; and,  $?$  = inflation rhythm.



#### **D. Fundamentals to participate in the market:**

With the purpose of reaching the fundamental objective of the monetary, exchange and credit policy for 2005, is considered convenient to explain the fundamentals which will command the participation of Central Bank in the monetary market as well as in the exchange market.

##### **1. Focusing on the fundamental objective.**

The existence of the fundamental objective in terms of promoting the stability in the general level of prices, allows the *Banco de Guatemala*, to concentrate its forces in the consecution of the goal, which is the best contribution that it may offer for the creation and the maintenance of the most favorable monetary, exchange and credit conditions, to the orderly development of the national economy. It is for this reason that all the functions and attributions of the central bank must be made giving privilege to the stability in the general level of prices; which means, any political action which will begin looking for other secondary objects, must be made without setting aside the goal of reaching the fundamental objective of the monetary policy.

##### **2. The use of the open market operations in a plan of explicit goals of inflation.**

One of the instruments of the monetary, exchange and credit policy, which is key in a plan of explicit goals of inflation, is the one of open market operations (OMAs), which consists of the purchase and sale of public bonds at market price, made by the central bank with the different financial institutions or directly with the public, with the idea of directly expanding or contracting the monetary base (numeraire plus bank float) to the effect that, on the one hand, moderates the behavior of the aggregate demands of economy, and on the other hand, influence the evolution of the interest rates and by this contribute with the final objective of the monetary policy goal, since it is the stability in the general level of prices.

**a) Mechanism that actually is used by *Banco de Guatemala* in the open market operations -OMAs-.**

*Banco de Guatemala*, in the framework of monetary, exchange and credit policy, determined by the Monetary Board, with the purpose of easing the primary money offer in the economic activity, works with monetary stability operations through the attraction of funds in long term deposits. –DPs-. Such fund attractions made by the four following mechanisms:

**i) Electronic Banking Table of Money –MEBD-.**

In this mechanism the negotiations are made by individuals with the financial system in the country (banks and financial societies), with a schedule from 8 to 16 hours. These operations are made daily and at the moment are being negotiated to terms of 7, 14, 28 and 91 days, at steady interest rates of 2.55%, 2.61%, 3.24% and 6.10%, respectively.

**ii) Electronic floor of the National Stock of Exchange, S.A.**

This mechanism consists in the use of electronic floor which functions daily in the National Stock Exchange, S.A., in a schedule of 8 to 14 hours. The negotiations are made with a financing system of the country, through the stock exchange, working at this time under the same terms and rates with which the Electronic Banking Table of Money operates.

It is important to indicate that the participation of *Banco de Guatemala*, in the MEBD and in the mentioned stock exchange work considering the predetermined quotas by the Execution Committee, which are estimated in function of daily factors, in monetization and demonetization, foreseen in the monetization flow.

**iii) Biddings**

These kinds of operations are made daily through the stock exchange which operates in the country (National Stock Exchange, S.A., and Global Stock Exchange, S.A.)

The summons are made in predetermined global amounts, which are both quoted mechanism, as well as reviewed in function of daily factors in monetization and demonetization, foreseen in the monetization flow. Currently they summon daily terms of 91, 182 and 364 days, on Tuesday and Thursday, with the goal of promoting the long term market, the terms are added to 728 days (2 years) and 1456 days (4 years).

#### **iv) Window**

Through this mechanism, there are 2 kinds of daily operations available; the first one with the private non financial sector and the second with public entities. In the first case, they are made with normal individuals who make term deposits in multiples of Q100.00 to a maximum of Q10, 000.00; and in the second one they are operated by public entities, without limits in the amounts to be invested.

For the determination of the terms to be used in this mechanism, with the private non financial sector, the last bidding of DPs is taken into consideration, while in the public entities the terms are determined as requested by the entity whom they are working with, as long as they are offered by the central bank.

As to the interest rates, in the case of the first ones the weighted average of the last bidding minus a percentage point is applied, while for the second one the applied rates corresponding to the weighted average results of DPs bidding. For those terms in which adjudications do not proceed or are not included in the summons, the rates are determined by interpolating the rates of other terms or if there weren't any, based on the interest rate that is applied by the *Banco de Guatemala* in the Electronic Banking Table of Money and in stock exchange. For the terms that are not possible to interpolate, the rate to be applied is the one which was already applied in the last bidding where they were adjudicated.

**b) Transition of the current operational sketch to work on open market operations through one consisting on monetary sketch of explicit goals of inflation.**

The monetary sketch of explicit goals in inflation requires an operational frame that includes a mechanism to be accomplished by open market operations that motivate the efficiency of the primary market of public bonds and at the same time promotes the development and goes into a secondary market for such titles. In the explicit inflation goals context, one of the most important advantages to execute the monetary policy by OMAs, through a mechanism that privileges the decisions of the market, is that central bank can not only avoid a clear and explicitly sign the monetary market over the orientation of its policy, but also receive information of the same one, which allows it to dispose of additional elements which contribute in the execution and following of the actions of the monetary policy. Consisting on the above indicated, the International Monetary Fund<sup>77</sup> identified the following inconveniences regarding the manner in which *Banco de Guatemala* currently makes its open market operations in:

- The great amount of biddings and direct placement which is accomplished reduces the competition between the participants of the market and increases the cost of participation of *Banco de Guatemala*.
- Due to the demand of titles usually it is insufficient to completely cover the offer; the interest rate which is applied in the biddings is usually the reserve rate of *Banco de Guatemala*.
- The low levels of competition provoke a low level of incentives to be developed in the secondary market; and,
- There is not functional between the different issues; which means, that the secondary market does not develop due to the multiplicity of maturity dates in the titles which are worked.

With the goal of advancing through an operative sketch of the fulfillment of the open market operations which consist of the demands of a monetary

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<sup>77</sup> *Banco de Guatemala* with the purpose of counting on elements that coadunate to a better reach for decisions in what a monetary policy concern, requested the technique attendance of the International Monetary Fund –IMF- and hire the professional services of expertise in the matter, who fulfilled a group of recommendations that permit to advance in that direction.

sketch of explicit inflation, the *IMF* and international expertise <sup>78</sup> formulated, among other things, the following recommendations:

**i) International Monetary Fund.**

- To fulfill biddings once a week, with established amounts for each term.
- To reduce the number of terms in each bid.
- Alternate the goal terms in the bids in order to reduce the competition between them; and
- To begin with the issue of functional LTDs to promote the development of the secondary market.

**ii) Sebastián Edwards and Rodrigo Vergara.**

- To focus on one interest rate (ideally the lowest term; it means, the one of 7 days.) and that the market be the one which points to the interest rate to the other bidding terms. With the object of making up a profitability curve that, on the one hand would reflect the decision of the economic agents, and on the other hand constitute an advance through the sketch of explicit inflation goals; and
- To separate the operations of the monetary policy, from the operations destined to sterilize the structural surplus of liquidity (that the authors identify as “internal policy debt”).

**c) Gradualism in the actions to be taken**

Within the recommendations given by the *IMF* and by the international experts who were referred; we found that the actions to be taken to establish a mechanism of open market operations, consisting with a sketch of goals of explicit inflation, should be adopted in a gradual manner and after a profound discussion and analysis of each measure. This is so, because pretending to pass from one mechanism to another in a very short period could generate doubt between the economic agents that participate in the referred operations, going around this in a unnecessary reduction of the efficiency of the monetary policy and, therefore, in the possibility of risking the consecution of the

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<sup>78</sup> Edwards, Sebastián and Rodrigo Vergara. “The Monetary Policy and the Macroeconomic Stability in Guatemala”. November 24, 2004.

fundamental objective of the central bank, which is to promote the stability in the general level of prices.

**d) About the discussion of the leading interest rate of the monetary policy:**

Regarding the definition of the leading interest rate for the monetary policy, Dr. Edward recommends the use of certified rates of deposit in a term of 7 days; although, in his document from 2000 he recommended the use of certified deposit rate for a 28 day term.

The main advantage of using a leading rate corresponding to 7 days is that it would allow *Banco de Guatemala* to have effective control at all times on it, to offer demand of liquidity at that rate. In effect, the operations of repurchase agreements, through which the central bank would offer funds with a leading rate, are easier when they are in short term because they can be endorsed for bigger stock of finance instruments susceptible to be negotiated. If the leading rate corresponds to a higher term, it would be more difficult for the central bank to give liquidity to that term; in those cases in which such liquidity giving would be required to accomplish an effective control of the rate. Besides, it realized an econometric exercise based on the application of vectors auto-regressive; in which it was found that the interest rate corresponds to LTDs to 7 days is the one which counts on a higher influence over the rates of interest in the market more related with the economic activity<sup>79</sup>.

Notwithstanding, the above indicated, the election of the leading rates of the monetary policy is an issue that must be evaluated with deepest care, helped by the characteristic of the domestic market of money as well as the international experience.

**e) Orientation of the modifications in matter of operations of monetary stability.**

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<sup>79</sup> In attached 5 it is show the leading interest rate of the monetary policy based on the methodology used by professor Sebastián Edwards in 2000.

For the abovementioned it is convenient, for practical reasons that the Execution Committee of *Banco de Guatemala* is authorized to adopt gradually as needed, the modifications that must be pertinent to the effect of establishing the operational sketch to realize operations of monetary stability that are consistent with the monetary sketch of explicit inflation goals.

The mentioned modifications must be orientated in the following:

**i) Converge to the use of one interest rate corresponding to a minor term of one month.** Such a rate must be the leading rate of the monetary policy which will give the signal to the markets about the bias of said policy at any moment. The participation of *Banco de Guatemala* using this term must have a higher frequency (that could be at the beginning daily) using the markets that currently operate in real time (MEBD and Electronic Floor). These operations fundamentally correspond to the conjectural OMAs and are orientated toward influencing the conditions and expectations of the market with the goal to accomplish the inflation rate. For this, the decisions in a matter of determination of the leading rate would be adopted in function of the projections of inflation and the following of the float indicatives of the monetary policy.

**ii) Reorientation of the biddings of LTDs in the accomplishment of structural OMAs.** For the effect, quotas must be established for each of the terms that in a moderate number would be bid with a frequency that, for example, could be of two bids per week. The interest rates would be the result of the best purchaseer of each bidding term.

**iii) Without reduction of the inflation objective, to look for the stability of the interest rates in short term and the adequacy of the primary money offer.** On the one hand, it is convenient that the short term rates (mainly represented by the rates in the market of repurchase agreement) do not fluctuate abruptly, that is why the Central Bank must

be prepared to participate (through the markets that operates in real time) giving or taking away liquidity at the moment in which volatility in the mentioned market is being observed. On the other hand, it is also convenient that follow up must be done according to the amount of money in the economy, to avoid the most elemental source (in the long term) of inflation pressures: the surplus of primary issue; for this purpose, and not only its limitations, the follow up of the program of monetary issue continues being a useful tool to carefully look into the mentioned surplus.

**iv) To make the transparency and efficiency in the communication of the actions of monetary stability better.** At the same time this implies a continued advancing of the estimation effects of the monetary policy in the different variables and its economy transmission mechanism.

### **3. Exchange Flexibility:**

The current exchange regimen, as well as the exchange rate is determined by the interaction between the offer and demand of foreign currency in the market. It is important to remember that in the presence of free capital mobility, it is impossible to have simultaneous control of the exchange rate and of a monetary aggregate, and it is not only to remind that a policy of monetary stabilization cannot rest over the establishment of the nominal anchors, and it becomes evident that the action of *Banco de Guatemala* must be centered in maintaining a low and stable inflation, so that the rest of the fundamental determinants experiment behavior that does not ruin the macro economy of the country.

Notwithstanding the above written, there are reasons that justify the sporadic participation of the central bank in the exchange market. In the first place, in an open economy, the exchange rate affects the relative price between the domestic and external assets, which at the same time affect the domestic and external demand of assets, produced locally and, therefore, will affect the



aggregate demand and the inflation. In second place, there also exists a direct channel by which the exchange rate affects the price of local currency and the imported assets, by which the exchangeable volatility may distort the messages to the market that are sent by relative domestic prices. In third place, as a financial agent of the State, the central bank must obtain and provide foreign currency to the government in order to attend their obligations, that is why *Banco de Guatemala* must participate in the exchange market with the purpose of obtaining foreign currency that the bank itself, the central government and other entities of the public sector require.

Also, in order to maintain moderate volatility in the market, it is being proposed that the *Banco de Guatemala*, use a mechanism of options of purchase and sale of US dollars. About this matter, it is convenient to indicate that the technical department of the *Banco de Guatemala*, in July 2004, began to examine the international experience regarding the participation of one central bank in the exchange market through the mechanism of sales options and foreign currency purchase options. The application of the quoted mechanism has antecedents in the performance of central banks in Mexico and Colombia.

In the case of the Bank of Mexico, they applied a policy of international monetary reserves accumulation through the issue of dollar sales options in a period between August 1996 and June 2001. In this case, therefore, the objective of trade participation of the mentioned bank, through the emission of options of dollar sales, did not have the objective of limiting the volatility of the exchange of rate of the Mexican peso to the US dollar.

In the case of the Bank of the Republic of Colombia, after a visit made by the technicians of *Banco de Guatemala* in August 2004, their participation in the exchange market through the placement of foreign currency options since November 1999 was known; having two clear and different purposes: accumulating international monetary reserves and reducing the exchange volatility in the short term. It is important to indicate that the experience of the mentioned bank on its participation in the exchange market through purchase

and sale of foreign currencies options with the purpose of reducing the exchange volatility of the nominal exchange rate in the short term is unique. Because it is a direct antecedent of the proposal of the exchange rate related to the adoption and adaptation of the mechanism used by the Bank of the Republic of Colombia, in the document known as “Proposal: Use of options of purchase and sale of foreign currency to reduce the volatility of the exchange rate” (See attachment A), there the aspects of the mentioned mechanism are detailed, with the idea to consider its application in 2005<sup>80</sup>.

It is important to indicate that the implementation of the mentioned options mechanism will allow the advancing of a more flexible exchange regimen, consisting with a sketch of explicit inflation goals. In that sense and in congruency with the spirit of gradualness which may address the transition to an explicit inflation goal scheme; it is convenient that the Execution Committee of *Banco de Guatemala*, have orientation in order to introduce the modifications of the participation mechanism in the exchange market, as an effect to briefly adopt, the referred system of options of purchase and sale of foreign currency, in the general lines described in the referred attachment.

At last, is important to indicate that for the efficiency of a flexible exchange regimen, according to modern literature on the exchange regimen<sup>81</sup>, it is indispensable, on the one hand, that the central bank focus on the consecution of stability in the general level of prices, while the depreciation of the exchange rate, the existence of a central bank with high credit will reduce the possibility of forming expectations of inflation and on the other hand, that an adequate financial supervision orientated toward reducing the associated risks of the indirect foot of the banking system exist, because it guarantees that said system will maintain a healthy portfolio, even with the presence of depreciated exchange.

## **E. Instruments to maintain the macro-financing stability.**

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<sup>80</sup> Afterwards, Sebastián Edwards and Rodrigo Vergara, in their documental “The Monetary Policy and Macroeconomic Stability in Guatemala”, dated November 24, 2004, also recommended the adoption and adaptation of a sketch of participation of central bank in the exchange market as the one used by Bank of the Republic of Colombia.

<sup>81</sup> See, Calvo, Guillermo and Carmen Reinhart. Fear of Float. Quarterly Journal of Economics. Second Quarter 2002.

## **1. Structural and Cooperative Open market operations**

The stabilization of the main macro-financing variables (inflation, interest rate and exchange rate) that have been reached in recent years, are explained by the support of fiscal to monetary policy and for the application of a monetary policy that, with the election of a nominal anchor (inflation goal) in the context of a regimen of flexible exchange rate, it was fundamentally sustained, in the application of orthodox measures based in the realization of OMAs. Such operations have demonstrated to be a flexible instrument that permits the Central Bank to contract and expand the amount of primary money, according to the outline of policy execution.

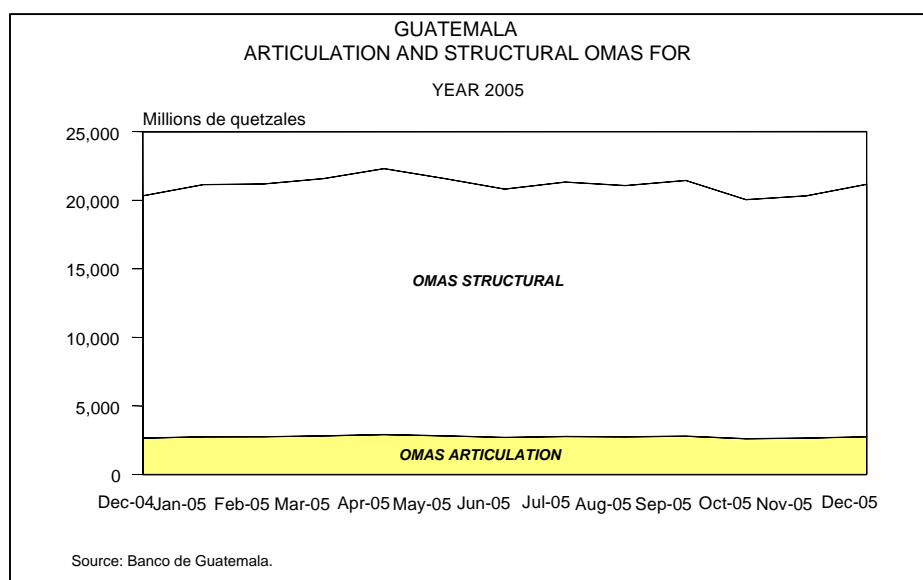
In that sense, congruent with the instruments of monetary regulations in an environment of market conditions, for 2005 the open market operations will continue being the privileged instrument to control monetary offer, because it is the instrument that least distortion introduces into the economy, permitting to accomplishment of the fundamental objective to promote the stability in the general level of prices.

When retrospectively analyzing, the maturity dates of the open market operations and the needs of primary liquidity of the economy, it results evident that the primary offer generated by such maturities has been greatly consistent with the demand of money, which has propitiated that the Central Bank constantly neutralize those surpluses of structural nature. This situation evidenced that Central Bank, the monetary spaces allows it, may realize open market operations to a larger term of one year.

On the other hand, the fulfillment of OMAs that implies a structure of maturity dates that may be consistent with the monetary program would be considered of cooperative nature.

In that sense, it is proposed that in 2005 the Central Bank make OMAs of a structural nature and OMAs of conjectural nature (based on the quoted estimation), as needed by the monetary program and of the preference of the

economic agents. The following graph shows the realized estimation that separates both kinds of operations.



Although, the indicated year suggests that the proportion of articulated OMAS is on average, 15% regarding the total, we must not overlook the fact that it is about an estimation with the proposals that are currently had on the evolution of the monetizing and demonetizing factors of the monetary program of 2005, therefore, due to the fact that these proposals may change events of domestic or exogenous nature that may come in the future, it is recommended that to apply this classification at the moment when said operations must be made; they be made gradually, with the idea of not generating unnecessary distortions in the primary liquidity of the economy.

In that sense, there is the possibility of beginning with 50% articulated OMAS regarding the total, and then reducing said percentage gradually, according to the requirements of the economy.

## **2. Attraction of deposits to terms in dollars of the United States of America.**

If it is true those central banks with an independent monetary policy, orientated to the stability in the general level of prices in the context of a flexible regimen of exchange rate, faces the restriction to postulate the impossible trinity

of the open macro-economy, it is also in the short term if they may implement transitorily measures of the monetary policy orientated to dishearten appreciations or depreciations<sup>82</sup> accelerated of the exchange rate, that places the macroeconomic stability at risk.

In that context, the income of capital in the country still could be considered of temporary nature<sup>83</sup>, and taking into consideration that there is not enough evidence to confirm that said influence has definitely stopped and, therefore, the risk of accelerated appreciations of the associated exchange rate has not definitely disappeared in such influence of capitals, it is prudent that Central Bank for 2005 continue disposing the instrument that allows the obtaining of liquidity in foreign currency through attraction of deposits of US dollar terms, with the objective that, if the circumstances deserve it, softens the behavior of the exchange rate, extracting American dollars from the market at the moment in which (seasonally) there is surplus, to reinvest them in the moment in which (seasonally) the result is limited, according to the established in Resolution JM-99-2004 dated September 24, 2004.

It is convenient to indicate, contrary to the Open market operations in quetzales, this measure does not pretend to reduce the primary offer of American dollars, because *Banco de Guatemala* does not control the issue of the mentioned currency. It is important to mention the amounts to attract and the terms of the proposed operations, will continue being determined by the Execution Committee of *Banco de Guatemala*, in function of the evolution of the exchange market, according to which was disposed on article 8, literal a, of Regulation of the Execution Committee, approved by the Monetary Board in resolution JM-193-2002 dated June 1, 2002.

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<sup>82</sup> For example, Central Bank of Chile, since 1999 implemented a monetary sketch of explicit inflation goals, intervene in the exchange market in 2001 and 2002 with the object moderate accelerated depreciations of Chilean peso, respect to the dollar of United States of America, because it risked the macroeconomic stability and the consecution of fundamental objective of Central Bank. Also in 2003, Central Bank of Japan obtained US\$180,000.0 million to avoid the abrupt appreciation of the exchange of rate, and with these make unnecessary distortions in the main macroeconomic variables.

<sup>83</sup> See attachment 1.

### **3. Bank Reserve:**

If the bank float constitutes a mechanism that allows lessening the rhythm of expansion of the aggregate liquidity and credit, in the last years this has not be used for such means, but for the effect of keeping liquidity. In this sense, on the one hand, continued confidence in the financial system is needed and on the other hand that the banking entities maintain the reasonable excess in special reserve, recommending the continuance of the float rate of 14.6%.

### **4. Last instance lenders:**

The credit assistance of the central bank to finance institutions must be orientated only to solving temporary problems of liquidity, which is pursuant to keeping said problems from becoming worse and may unnecessarily pressure the interest rate or jeopardize the good functioning of the payments system; which means, that such assistance must be only one 'safety valve' that responds to unexpected movements of liquidity that eventually stop a fluid distribution of the reserves through the interbank market.

With the object of propitiating the correct use and ease of last instance lenders, the Organic Law of *Banco de Guatemala*, establishes limits for the function of last instance lenders of the central bank, in order to privilege the consecution of its fundamental objective, which is to promote the stability in the general level of prices<sup>84</sup>.

Finally, it is important to indicate that the Monetary Board is currently discussing an outline proposal that allows the role of last instance lenders to be accomplished.

## **F. Measures to Contribute to the Effective Monetary Policy.**

### **1. Coordination of the fiscal policy.**

The efficient and effective coordination of monetary and fiscal management is necessary in order to avoid the weight of stability falling

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<sup>84</sup> The above mentioned is regulated in article 48 of law, which establish that *Banco de Guatemala*, based on the Monetary Policy, Change and Credit determined by the Monetary Board, may grant credit to the bank institutions only to cover transitorily deficiency of liquidity.

exclusively on one of the mentioned policies and, therefore, distortions such as: unnecessary pressures on the exchange rate, high interest rates, unsustainable public debt and liquidity of the national financial system, which may reduce economic growth being generated.

During 2004, the coordination between the fiscal and monetary policies had been carried out through a Coordination Committee that has already been agreed to between the authorities of the *Ministerio de Finanzas Publicas* [Roughly equivalent to the Department of Treasury.] and *Banco de Guatemala*, periodically reuniting to follow up on the operations made by said institutions, looking after that they are accomplished as it was agreed to in the consistent and coherent monetary program, in the framework of the economic program of the country.

In the described context, the continuation of an adequate coordination of the fiscal and monetary policies constitutes a species of “assets” that strengthen the institutionalism of the macroeconomic policy.

## **2. Modernization of the system of payments:**

With the purpose of continuing the good function of the payments system, strengthen the trust and security, preserves a healthy financing system and strengthens the conditions for the sustained growth of the national economy, the Monetary Board, in resolution JM-140-2004, approved the Matrix Modernization of the Payments System, whose objective of being promoted during 2005 is to implement a system of gross liquidity in real time and the chamber of electronic bank compensation under a regulatory and integral frame. In this sense, it is pursuant that said systems as well as the referred chamber fulfill the basic principals for the payment system of systematic importance, as well as with the international standards.

## **3. Transparency and account rendering of the *Banco de Guatemala***

To fortify the account rendering on the performance of the central bank it is necessary that, besides accomplishing the elaboration of the different reports and publications contained in the organic law comprehensible and accessible to

the objects of monetary policy, as well as the actions taken to be executed in the mentioned policy<sup>85</sup>. For the accomplishing of the above indicated we propose to make a calendar contained in attachment 6.

### **III. The communications demands of the Monetary Regimen of Inflation Targeting**

In the last years, for the fulfillment of its main objective, the majority of the central banks have successfully adopted the monetary regimen known as inflation targeting. As is well known, under this scheme, the inflation rate for a determined period is the direct objective and the firm commitment of the central bank, instead of using aggregate monetary, the exchange rate or other nominal variables as intermediate objectives. It is a monetary frame that implies the more discretionary use of diverse instruments of monetary policy, since the fundamental is the fulfillment of the inflation targeting expression.

This monetary policy framework requires an increase in the transparency of the actions of the central bank and fluid and constant communication and information toward the public, since they should be informed permanently if the inflation goal is being fulfilled, and in case of deviation, explain and correct them.

This makes the account rendering process stricter, whereby this is precisely referred to the fulfillment of the inflation goal.

The main motivation to adopt a regimen of Inflation Objectives (OI) is that it has been proven that it is a scheme that can favor the consolidation of the credibility in the policies of the central bank and of its objective of reducing inflationary rhythm. Among its advantages are that it allows a more tangible evaluation of the monetary performance of the central bank, and therefore, a better rendition of accounts before society; as well as a better understanding of the public toward monetary policy. With the greater transparency offered the regimen of OI, the central bank will be exposed to more intense public scrutiny.

Due to the above, a monetary regimen of the OI demands stricter requirements in terms of quantity, quality and transparency of the pertinent information, as well as a strategy of communication with society for more adequate follow-up and monitoring. The latter is particularly relevant, because without public support, the efforts of the central bank actions under the OI scheme would be facing failure. Therefore, that is why it is particularly crucial under this scheme to create social consensus as to the need to achieve permanent stability of prices.

How can the public monitor and evaluate the monetary policy under the OI system? Without an exhaustive list, it has been recognized that some of the following communicational elements are necessary under an OI scheme:

- a. Announcing effective inflationary goals in multi-annual horizon.
- b. Making it know to the public, general and specialized, the greatest amount of information possible regarding the methodology of calculation, operations and instrumentation and decisions making of the monetary policy. This could, for example, contemplate the disclosure of the estimation model of demand of money, the particular mechanism of transmission of the monetary policy, the way in which the inflation goals were set or fixed, description and explanation of the monetary intervention methods, the decision making mechanism, etc.
- c. Public declaration systems on behalf of the maximum decisive authorities of the institution.
- d. Periodic Publication of a detailed report on the inflation evolution, the instrumented monetary measures and an evaluation of the fulfillment of the proposed objectives, and in the case of deviations, detailed corrective measures that they think to follow.

Source: Código de Principios y Buenas Prácticas Comunicacionales para la Banca Central. Centro de Estudios Monetarios Latinoamericanos. Marzo 2004. (Code of Principles and Good Communicational Practices for Central Banks, Latin American Monetary Studies Center, March 2004.

<sup>85</sup> It is important to indicate that according with the recommendations formulated by the International Monetary Fund in matter of explicit inflation goals, the transparence and rendering of accounts in a monetary sketch of such nature constitute a valuable element for the design and implementation of monetary policy.



#### **IV. Recommendation:**

Based on the above exposed, the Technical Council of the *Banco de Guatemala* recommends the Monetary Board approve the Monetary, Exchange and Credit Policy, for 2005, as well as the complementary measures of the same, in the agreed terms in the present dictation.

Sincerely,

Oscar R. Monterroso S.  
Director  
Dept. Economic Studies

Fernando Danilo Estrada  
Subdirector  
Dept. Economic Statistics

Juan Carlos Castañeda  
Director  
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Carlos A. Meléndez M.  
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Financial Analysis

Edgar R. Lemus Ramírez  
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Director  
Dept. Open Market Operations

Carlos Rafael García  
Financial Administrator

F. Estuardo García A.  
Secretary

José Alfredo Blanco Valdés  
Coordinator

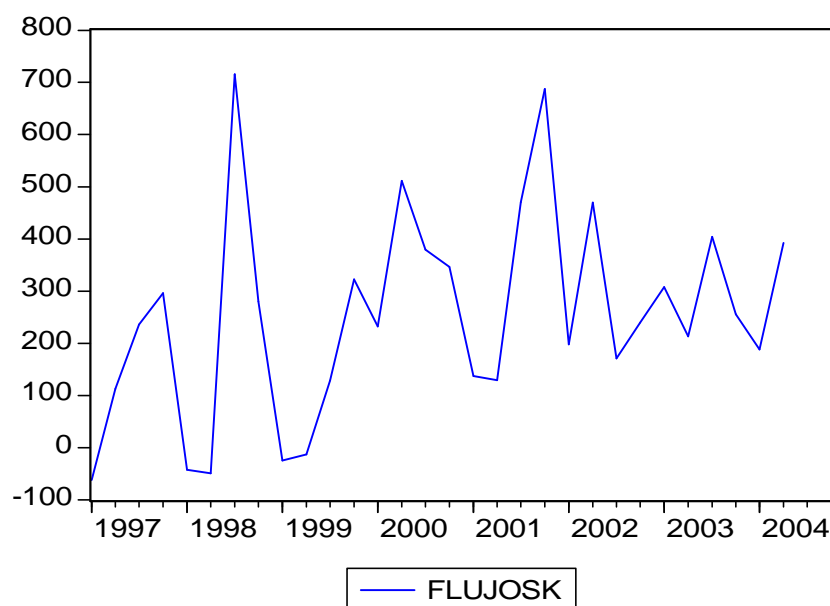
The present report was approved by the Technical Council of the *Banco de Guatemala*, in session celebrated December 14, 2004.

# ATTACHMENTS

## Attachment 1.

### Guatemala: Determined capital flow for 1997 – 2004 period.

The objective of the present exercise is to determine the exogenous variables that have had more influence in the behavior of the private capital flow in the country. The independent variables used are those suggested by the economic theory: exchange rate, differential in interest and growth rates. The information used was based on a characteristic trimester and for the 1997 to 2004 period. First there was proof to determine if the series of capital flow was seasonal or not. Through the Dickey-Fuller proof and the self-correcting functions; the seasonal series was found (integrated in order 0). This has important implications, because if the series is seasonal it means that the shocks are temporary, because one seasonal variable is that which has a half and constant variable and the autocorrelations do not depend on time.



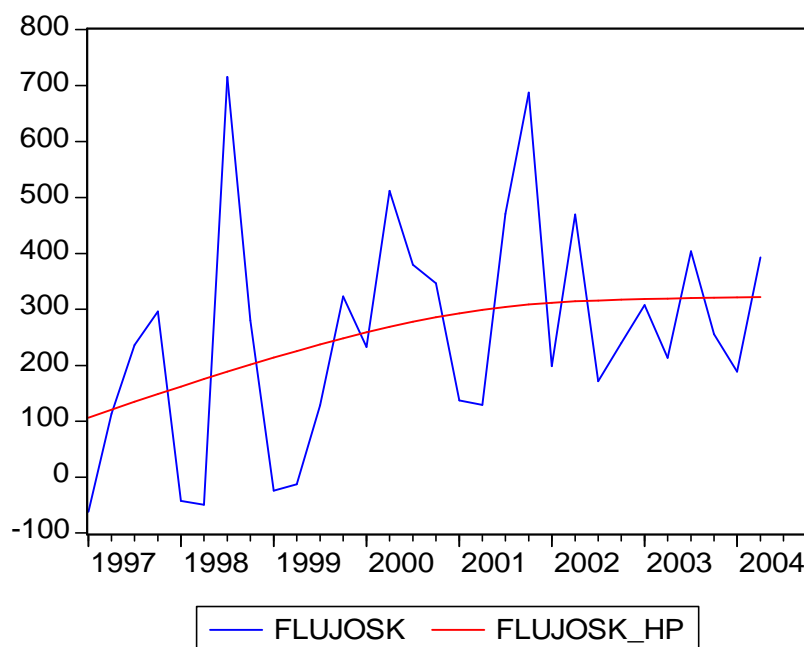
In this graph we can appreciate the seasonality in the series, especially from 2000, on. The function of autocorrelation that is shown next appears to correspond to a process of soft noise (half equals to 0, constant variable, non tendency and non autocorrelation).

Sample: 1997:1 2004:4  
 Included observations: 30

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
.  * .	.  * .	1 0.108	0.108	0.3879	0.533
. **  .	. **  .	2 0.225	0.240	2.1273	0.345
.   .	.   .	3 0.050	0.007	2.2158	0.529
.  * .	.   .	4 0.108	0.064	2.6473	0.618
.  * .	.  * .	5 0.172	0.150	3.7855	0.581
. *  .	. *  .	6 0.066	0.075	3.9617	0.682
.  * .	.  ** .	7 0.171	0.288	5.1782	0.638
.  ** .	.  ** .	8 0.260	0.197	8.1345	0.420
. *  .	. *  .	9 0.112	0.114	8.7117	0.464
. *  .	. *  .	10 0.180	0.081	10.271	0.417
. *  .	. *  .	11 0.122	0.168	11.020	0.442
.  * .	.   .	12 0.105	0.053	11.612	0.477
.   .	. *  .	13 0.043	0.101	11.716	0.551
. **  .	. **  .	14 0.220	0.217	14.627	0.404
.   .	.   .	15 0.008	0.023	14.631	0.478
.   .	. *  .	16 0.003	0.070	14.632	0.552

Derived from that fundamental series if it observes a level tendency, the filter of Hodrick and Prescott (HP) was applied; which result is observed in the following graph.

**Guatemala: Flow of Capital, Historical Evolution and Long Term Tendency.**



The HP filter then constitutes the long term tendency and we can appreciate that the growth tendency from 1997 to 2000 does not matter, and then the series becomes pretty seasonal.

**Regression analysis:**

Through the analysis of regression that the capital flow tendency was found and is mostly explained by the differential of the interest rate.

Dependent Variable: FLUJOSK\_HP  
 Method: Least Squares  
 Date: 11/23/04 Time: 16:28  
 Sample (adjusted): 1997:1 2004:2  
 Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	457.634	64.49513	7.095650	0.0000
PNC\$	4.02879	1.629624	2.472223	0.0200
IMAETCR	-	4.964509	-2.041734	0.0511

10.1362  
1

R-squared	0.35652	Mean dependent var	254.620
Adjusted R-squared	0.30886	S.D. dependent var	69.7823
S.E. of regression	58.0133	Akaike info criterion	11.0538
Sum squared resid	90869.7	Schwarz criterion	11.1939
	-		
Log likelihood	162.807	F-statistic	7.47988
Durbin-Watson stat	0.14904	Prob(F-statistic)	0.00260

Where: PNC\$= non cover parity (PNC\$) = passive LIBOR rate rate\*type. Of change: IMAETCR= inter-annual variation of the period of tendency of IMAE. The explained variables are significant statistics, but the variability of economic growth does not have the expected sign. Although, it was found that this result is sensible to the original; which means, that the significance of the estimated may change when it is used for a shorter period of time as is shown in the following regression:

Dependent Variable: FLUJOSK\_HP  
Method: Least Squares  
Date: 11/23/04 Time: 16:30  
Sample (adjusted): 2000:1 2004:2  
Included observations: 18 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	394.8400	11.16291	35.37071	0.0000
PNC\$	2.275423	0.282360	8.058589	0.0000
IMAETCR	-0.739659	1.091116	-0.677892	0.5082
R-squared	0.820267	Mean dependent var	304.2349	
Adjusted R-squared	0.796302	S.D. dependent var	19.63643	
S.E. of regression	8.862490	Akaike info criterion	7.352544	

Sum squared resid	1178.15	Schwarz criterion	7.500940
	6		
	-		
Log likelihood	63.1729	F-statistic	34.22845
	0		
Durbin-Watson stat	0.58998	Prob(F-statistic)	0.000003
	6		

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In this result, the coefficient of IMAETCR does not have the expected result, either but statistically this is not different to 0. It must be emphasized that  $R^2$  is very high and the rate differential is very significant. This can be interpreted as: in the last years the most important determinant for capital flow has been the differential interest rate.

**Conclusions:**

1. The series of capital flow is seasonal, and for this the shock of the last years may be considered temporary;
2. During the last years the capital flow has been explained mostly by the differential of interest rate; and
3. The results are sensible to the original.



## ANNEX 2

### Statistic appendix: Real Sectors, monetary, fiscal and external (2002-2006)

SECTOR REAL  
ORIGEN POR RAMAS DE ACTIVIDAD DEL PRODUCTO INTERNO BRUTO  
A PRECIOS DE MERCADO  
AÑOS: 2002 - 2005  
(Millones de quetzales de 1958)

CONCEPTO	2002	2003 p/	2004 e/	2005 py/	Tasas de Variación Porcentual				Contribución en Variación Porcentual del PIB				Participación en Variación Porcentual del PIB			
					2002	2003	2004	2005	2002	2003	2004	2005	2002	2003	2004	2005
<b>PRODUCTO INTERNO BRUTO</b>	<b>5,308.7</b>	<b>5,421.4</b>	<b>5,565.1</b>	<b>5,742.3</b>	<b>2.2</b>	<b>2.1</b>	<b>2.7</b>	<b>3.2</b>	<b>2.2</b>	<b>2.1</b>	<b>2.7</b>	<b>3.2</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
1. Agricultura, silvicultura, caza y pesca	1,192.4	1,227.8	1,270.1	1,300.2	1.8	3.0	3.4	2.4	0.41	0.67	0.78	0.54	18.09	31.37	29.38	17.00
2. Explotación de minas y canteras	29.2	29.7	27.0	27.4	10.0	1.6	-9.1	1.6	0.05	0.01	-0.05	0.01	2.27	0.42	-1.87	0.25
3. Industria manufacturera	681.0	688.0	702.1	718.0	0.8	1.0	2.1	2.3	0.10	0.13	0.26	0.29	4.62	6.26	9.82	8.96
4. Construcción	93.7	91.6	77.3	87.0	-15.3	-2.2	-15.7	12.6	-0.33	-0.04	-0.27	0.18	-14.46	-1.81	-10.01	5.50
5. Electricidad y agua	223.2	233.2	246.8	253.8	9.1	4.5	5.8	2.8	0.36	0.19	0.25	0.13	15.97	8.84	9.48	3.97
6. Transporte, almacenamiento y comun.	552.3	581.9	631.7	672.1	5.7	5.4	8.6	6.4	0.57	0.56	0.92	0.73	25.32	26.27	34.67	22.79
7. Comercio al por mayor y al por menor	1,319.2	1,346.3	1,393.3	1,432.2	2.8	2.1	3.5	2.8	0.70	0.51	0.87	0.70	31.16	24.02	32.73	21.95
8. Banca, seguros y bienes inmuebles	265.3	269.2	275.6	286.0	1.8	1.5	2.4	3.8	0.09	0.07	0.12	0.19	4.02	3.53	4.44	5.86
9. Propiedad de vivienda	245.4	252.6	260.2	268.2	2.7	2.9	3.0	3.1	0.12	0.14	0.14	0.14	5.48	6.40	5.29	4.51
10. Administración pública y defensa	395.8	378.8	346.4	349.8	-0.6	-4.3	-8.5	1.0	-0.04	-0.32	-0.60	0.06	-1.95	-15.07	-22.53	1.89
11. Servicios privados	311.2	322.3	334.6	347.6	3.7	3.5	3.8	3.9	0.21	0.21	0.23	0.23	9.48	9.77	8.59	7.33
<b>ESTRUCTURA PORCENTUAL</b>																
<b>PRODUCTO INTERNO BRUTO</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>												
1. Agricultura, silvicultura, caza y pesca	22.5	22.6	22.8	22.6												
2. Explotación de minas y canteras	0.6	0.5	0.5	0.5												
3. Industria manufacturera	12.8	12.7	12.6	12.5												
4. Construcción	1.8	1.7	1.4	1.5												
5. Electricidad y agua	4.2	4.3	4.4	4.4												
6. Transporte, almacenamiento y comun.	10.4	10.7	11.4	11.7												
7. Comercio al por mayor y al por menor	24.9	24.8	25.0	24.9												
8. Banca, seguros y bienes inmuebles	5.0	5.0	5.0	5.0												
9. Propiedad de vivienda	4.6	4.7	4.7	4.7												
10. Administración pública y defensa	7.5	7.0	6.2	6.1												
11. Servicios privados	5.9	5.9	6.0	6.1												

p/ Cifras preliminares

e/ Cifras estimadas

py/ Cifras proyectadas

#### Gross National Product

1. Agriculture, forestry, hunting and fishing.
2. Exploitation of mines and quarries.
3. Manufacturing industry.
4. Construction.
5. Electricity and water.
6. Transportation, storage, and common.
7. Wholesale and Retail Commerce.
8. Banking, insurance, and assets.
9. Housing.
10. Public and defense administration.
11. Private services.

#### Structural Percentage

1. Agriculture, forestry, hunting and fishing.
2. Exploitation of mines and quarries.
3. Manufacturing industry.

4. Construction.
5. Electricity and water.
6. Transportation, storage, and common.
7. Wholesale and retail Commerce.
8. Banking, insurance, and assets.
9. Housing.
10. Public and defense administration.
11. Private services.

p/ preliminary number.

e/ estimated number.

py/ projected number.

## Monetary Sector. Years: 2002-2006. Million of Quetzals

### SECTOR MONETARIO

Años: 2002 - 2006  
En Millones de Quetzales

CONCEPTO	2002	2003	2004 <sup>e/</sup>	2005 <sup>e/</sup>	2006 <sup>e/</sup>
Reservas Internacionales Netas (millones de US\$ Dólares)	2,369.6	2,919.3	3,419.3	3,284.3	3,494.3
Reservas Internacionales Netas en MN <sup>1/</sup>	18,956.8	23,354.2	27,354.2	26,274.2	27,954.2
Emisión Monetaria	9,999.6	11,924.4	12,745.0	13,712.0	14,873.0
Crédito al Sector Privado Total	32,531.2	35,420.4	40,250.8	45,064.6	50,545.2
Captaciones Bancarias Totales	42,749.1	47,578.1	53,930.5	60,059.2	66,995.9
Medios de Pago M2 en MN	48,180.7	53,286.1	58,298.2	63,023.4	68,049.3
Medios de Pago M2 en M/E	3,293.3	4,900.5	6,970.7	9,234.5	12,178.6
Medio de Pago Totales M2 (MN + ME)	51,474.0	58,186.5	65,268.9	72,257.9	80,227.8
Costo de la Política Monetaria	1,015.5	990.4	1,051.0	1,063.0	885.0
Saldo de OMAs	11,158.7	14,508.5	17,665.0	18,405.0	19,417.0
M3 Total	55,179.8	61,402.0	68,893.0	76,264.6	84,653.7
<b>INDICADORES MONETARIOS</b>					
Años: 2002 - 2006					
En porcentajes					
CONCEPTO	2002	2003	2004 <sup>e/</sup>	2005 <sup>e/</sup>	2006 <sup>e/</sup>
RIN en MN / Emisión Monetaria	189.6	195.9	214.6	191.6	188.0
RIN en MN / OMAs	169.9	161.0	154.8	142.8	144.0
RIN en MN / M2 Total	36.8	40.1	41.9	36.4	34.8
OMAs / Emisión Monetaria	111.6	121.7	138.6	134.2	130.6
Crédito al Sector Privado Total / PIB Nominal	17.8	18.0	18.9	19.2	19.2
M2 Total / PIB Nominal	28.2	29.6	30.6	30.7	30.5
M2 en ME / M2 Total	6.4	8.4	10.7	12.8	15.2
OMAs / M2 Total	21.7	24.9	27.1	25.5	24.2
OMAs / PIB Nominal	6.1	7.4	8.3	7.8	7.4
Costo de la Política Monetaria / PIB Nominal	0.6	0.5	0.5	0.5	0.3

<sup>1/</sup> Tipo de Cambio: Q8.00 X US\$1.00

<sup>e/</sup> Estimado de Cierre <sup>e/</sup> Estimado

### CONCEPT

Net International Reserves (million of US\$ Dollars)

Net International Reserves in MN <sup>1/</sup>

Monetary Issue

Credit to the Total Private Sector

Total BankinF Fund Raising

Means of Payment M2 in MN

Means of Payment M2 in M/E

Means of Total Payments M2 (MN+ME)

Cost of the Monetary Policy

Balance of OMAs

M3 Totals

**MONETARY INDICATORS. YEARS: 2002 – 2006 IN PERCENTAGE.**

RIN in MN/ Monetary Issue

RIN in MN/ OMAs

RIN in MN/ M2 Total

OMAs/ Monetary Issue

Total Credit to the Private Sector/GNP Nominal

M2 Total/GNP Nominal

M2 in ME/M2 Total

OMAs/M2 Total

OMAs/GNP Nominal

Cost of the Monetary Policy/ GNP Nominal

1/Exchange rate: Q8.00 x US\$1.00

<sup>e\*</sup> Closing Estimate. <sup>e/</sup> Estimate

## Fiscal Sector. Years: 2002-2006

**SECTOR FISCAL**  
**AÑOS: 2002 - 2006**

CONCEPTO	2002	2003 <sup>p/</sup>	2004 <sup>e*/</sup>	2005 <sup>e/</sup>	2006 <sup>e/</sup>
Carga Tributaria	10.6	10.3	9.8	9.9	9.8
Superávit/Déficit Fiscal (% del PIB)	-1.0	-2.3	-1.4	-1.8	-1.6
Superávit/Déficit Primario (% del PIB)	0.3	-1.2	-0.5	-0.4	0.0
Gasto Total (% del PIB)	12.4	13.4	11.7	12.4	12.1
Servicio Deuda Pública/Ingresos Tributarios (%)	33.8	27.9	27.9	33.7	41.2
Saldo Deuda Pública Interna (% del PIB)	4.5	5.6	6.2	6.7	7.5
Saldo Deuda Pública Externa (% del PIB)	13.4	14.1	14.5	13.9	12.8

<sup>p/</sup> Preliminar

<sup>e\*/</sup> Estimado de Cierre <sup>e/</sup> Estimado

### Fiscal Burden

Surplus/Fiscal Deficit (% of GNP)

Surplus/Primary Deficit (% of GNP)

Total Expense (% of GNP)

Public Service Debt/Fiscal Income (%)

Public Balance of Intern Debt (% of GNP)

Public Balance of External Debt (% of GNP)

<sup>p/</sup> Preliminary

<sup>e\*/</sup> Closing Estimate <sup>e/</sup> Estimate

## External Sector. Years 2002-2006. In million of US Dollars.

SECTOR EXTERNO  
AÑOS: 2002 - 2006  
- En millones de US Dólares -

CONCEPTO	2002	2003 <sup>p/</sup>	2004 <sup>e*/</sup>	2005 <sup>e/</sup>	2006 <sup>e/</sup>
<b>Saldo Cuenta Corriente</b>	<b>-1,234.9</b>	<b>-1,050.6</b>	<b>-1,110.5</b>	<b>-1,181.3</b>	<b>-1,233.1</b>
Exportaciones FOB	2,473.2	2,629.8	2,955.7	3,170.2	3,405.3
Principales productos	958.4	968.3	1,022.4	1,076.0	1,157.0
Otros productos	1,514.8	1,661.5	1,933.3	2,094.2	2,248.3
Importaciones CIF	6,304.1	6,721.6	7,628.9	8,132.3	8,661.1
Servicios	619.7	579.3	589.0	614.9	621.1
Transferencias Corrientes (Neto)	1,976.3	2,461.9	2,973.7	3,165.9	3,401.6
Remesas Familiares (Neto)	1,503.7	2,026.3	2,505.0	2,673.8	2,885.5
<b>Saldo Cuenta Capital y Financiera</b>	<b>1,256.7</b>	<b>1,600.2</b>	<b>1,610.5</b>	<b>1,046.3</b>	<b>1,443.1</b>
Transferencias de Capital (Neto)	124.2	133.8	138.6	141.2	144.9
Capital Oficial y Bancario	53.8	285.3	230.8	45.2	201.4
Capital Privado	1,078.7	1,181.1	1,241.1	859.9	1,096.8
<b>Variación de RIN</b> {(-) Aumento, (+) Disminución}	<b>-21.8</b>	<b>-549.6</b>	<b>-500.0</b>	<b>135.0</b>	<b>-210.0</b>
<b>Monto de Reservas Monetarias Internacionales Netas</b>	<b>2,369.6</b>	<b>2,919.3</b>	<b>3,419.3</b>	<b>3,284.3</b>	<b>3,494.3</b>
<b>RELACION RESPECTO AL PIB</b>					
<b>Saldo Cuenta Corriente</b>	<b>-5.3</b>	<b>-4.2</b>	<b>-4.1</b>	<b>-4.0</b>	<b>-3.9</b>
Exportaciones FOB	10.6	10.6	11.0	10.8	10.7
Principales productos	4.1	3.9	3.8	3.7	3.6
Otros productos	6.5	6.7	7.2	7.2	7.0
Importaciones CIF	27.0	27.1	28.4	27.8	27.1
Servicios	2.7	2.3	2.2	2.1	1.9
Transferencias Corrientes (Neto)	8.5	9.9	11.1	10.8	10.6
Remesas Familiares (Neto)	6.4	8.2	9.3	9.1	9.0
<b>Saldo Cuenta Capital y Financiera</b>	<b>5.4</b>	<b>6.5</b>	<b>6.0</b>	<b>3.6</b>	<b>4.5</b>
Transferencias de Capital (Neto)	0.5	0.5	0.5	0.5	0.5
Capital Oficial y Bancario	0.2	1.2	0.9	0.2	0.6
Capital Privado	4.6	4.8	4.6	2.9	3.4
<b>Meses de Importación de Bienes Financiables con RIN</b>	<b>4.2</b>	<b>4.6</b>	<b>5.0</b>	<b>4.6</b>	<b>4.6</b>
<b>Meses de Importación de Bienes y Servicios No Factoriales Financiables con RIN</b>	<b>3.9</b>	<b>4.2</b>	<b>4.6</b>	<b>4.2</b>	<b>4.2</b>
<b>COMERCIO EXTERIOR</b>					
<b>EXPORTACION - PRINCIPALES PRODUCTOS</b>					
<b>Café</b>	<b>269.0</b>	<b>292.3</b>	<b>324.8</b>	<b>355.3</b>	<b>400.6</b>
Volumen (Miles de qq)	4,528.5	4,972.3	4,260.0	4,320.0	4,970.0
Precio Medio (US\$ por quintal)	59.40	58.79	76.24	82.25	80.60
<b>Azúcar</b>	<b>208.2</b>	<b>189.2</b>	<b>196.9</b>	<b>218.6</b>	<b>221.0</b>
Volumen (Miles de qq)	27,329.7	27,481.1	26,267.5	26,987.7	27,620.0
Precio Medio (US\$ por quintal)	7.62	6.88	7.50	8.10	8.00
<b>Banano</b>	<b>233.0</b>	<b>230.6</b>	<b>241.9</b>	<b>253.6</b>	<b>286.3</b>
Volumen (Miles de qq)	20,817.6	20,736.9	21,560.0	22,640.0	25,750.0
Precio Medio (US\$ por quintal)	11.19	11.12	11.22	11.20	11.12
<b>Cardamomo</b>	<b>93.1</b>	<b>78.9</b>	<b>75.1</b>	<b>75.3</b>	<b>74.7</b>
Volumen (Miles de qq)	414.9	620.3	581.9	600.0	650.0
Precio Medio (US\$ por quintal)	224.39	127.20	129.06	125.50	115.00
<b>Petroleo</b>	<b>155.1</b>	<b>177.3</b>	<b>183.7</b>	<b>173.2</b>	<b>174.4</b>
Volumen (Miles de barriles)	8,401.3	8,237.5	6,865.5	6,970.0	7,750.0
Precio Medio (US\$ por barril)	18.46	21.52	26.76	24.85	22.50
<b>IMPORTACIONES - Grupo Económico CUODE</b>					
Bienes de Consumo	2,003.1	2,188.7	2,469.9	2,638.3	2,806.0
Materias Primas y Productos Intermedios	2,133.7	2,139.0	2,452.6	2,661.1	2,844.7
Combustibles y Lubricantes	650.2	908.5	1,022.8	1,003.4	1,064.6
Materiales de Construcción	148.1	154.2	163.3	175.5	187.6
Bienes de Capital	1,368.5	1,330.8	1,519.8	1,653.5	1,757.7

<sup>p/</sup> Preliminar

<sup>e\*/</sup> Estimado de Cierre    <sup>e/</sup> Estimado

## **CONCEPT**

### **Balance on normal account.**

Exportations FOB

Main products

Other products

Importations CIF

Services

Normal Transfers (net)

Family deliveries (net)

### **Balance on Financial and Capital Account.**

Transfers of Capital (net)

Official and Bank Capital

Private Capital

**Variation of RIN** {(-) Increase, (+) Decrease}

Net Amount of International Monetary Reserves

Relations Regarding the GNP

### **Balance in Normal Account**

Exportations FOB

Main products

Other products

Importations CIF

Services

Normal Transfers (net)

Family deliveries (net)

### **Balance on Financial and Capital Account.**

Transfers of Capital (net)

Official and Bank Capital

Private Capital

Months of import of Financial Assets with RIN

Months of import of Assets and Services Non Financial Factors with RIN

### **External Commerce**

#### **Exportation – Main Products**

##### **Coffee**

Volume (Thousands of quintals)

Mid price (US\$ per quintal)

**Sugar**

Volume (Thousands of quintals)

Mid price (US\$ per quintal)

**Banana**

Volume (Thousands of quintals)

Mid price (US\$ per quintal)

**Cardamom**

Volume (Thousands of quintals)

Middle price (US\$ per quintal)

**Petroleum**

Volume (Thousand of quintal)

Mid price (US\$ per quintal)

**Importations – Economic group CUODE**

Consumption commodities

Primary Matter and Mid Products

Fuel and Lubricants

Construction Material

Capital Assets

<sup>p/</sup> Pr

<sup>e\*/</sup> Estimated closing <sup>e/</sup> Estimate



**Attachment 3**  
**Free Translation**  
***Banco de Guatemala:***  
**Evaluation of the Progress in the Implementation of a Sketch of**  
**Explicit Goals of Inflation**

**Preface**

At the request of the Guatemalan authorities, a mission of the Department of Monetary and Financial System (SMF) of the International Monetary Fund (IMF) visited Guatemala City from September 13 to 24, 2004<sup>86</sup>. The mission evaluated the progress reached by *Banco de Guatemala (BANGUAT)* regarding the implementation of a regimen of explicit goals of inflation. Although, the mission developed, mainly, as evaluation work, it also formulated general recommendations to strengthen the possible weaknesses and to support the required conditions for the implementation of the regimen of explicit goals of inflation.

**EXECUTIVE SUMMARY:**

**From the year 2000 *BANGUAT* [For its acronym in Spanish.] has begun its transition to a regimen of explicit inflation goals.** As part of this transition, *BANGUAT*, requested a mission of IMF/SMF to evaluate the progress already reached in the consecution of this objective. This report reveals the mentioned evaluation and for this it included a characterization of the monetary policy in Guatemala and general recommendations for the transition of *BANGUAT* to a regimen of explicit inflation goals. Next the most important discoveries of the mission are described.

**Guatemala has had relative success in the control of inflation.** The central bank has announced inflation goals since 1991 and for 2000 has established a goal between 4%-6%. Establishing a goal at a growing rate related to the

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<sup>86</sup> The mission was integrated by Luis I. Jácome (Chief, SMF – IMF), Jorge Iván Canales-Krijenko (SMF-IMF), Iván de Oliveira Lima (Central Bank of Brazil) and David Vavra (National Bank of the Czech Republic). Marco Rodríguez (DHO-IMF) was added to the group mission in the city of Guatemala. The mission was coordinated with Erick Offerdal, Resident Representative of the International Monetary Fund in Guatemala.

monetary issue until the year 2000, *BANGUAT* had relative success regarding the announced inflation, while it has carried out a deflation process. Since 2000, Guatemala has followed a regimen of light explicit inflation goals, giving more importance every time to the interest rate to short term variable operations.

***BANGUAT* reacted to the real development in financial economy, adjusting its interest rate policy and intervening in the exchange market.**

Based on daily information from the newspaper for the period from December 2000 to August 2004, the statistical analysis reveals that *BANGUAT* had systematically adjusted its reference interest rate (interest rate of purchase agreements, LTDs for 28 days) as a response to the evolution of (i) deviation of the monetary issue regarding objective levels; (iii) excess of bank float; (iv) US federal funds rate, and, (v) interest rate in national currency. Besides, the interest rates of *BANGUAT* do not appear to have responded to any systematic variations in the exchange rate. At the same time, the interest rates of *BANGUAT* have transient impacts over: (i) deviation of inflation regarding the objective inflation; (ii) deposit interest rates; (iii) surplus of bank float; and, (iv) repurchase agreement interest rates. Besides, there was no statistic impact of policy changes on the deviation of the monetary issue and the exchange rate found.

***BANGUAT* had made progress in the construction of an appropriate institutional frame for a regimen of explicit inflations goals, although there is still space for improvement.**

The new Organic Law of *Banco de Guatemala*, (2002) strengthens the institutional frame of the monetary policy. Although, there is space for improvement, because there are limitations that challenge the efficiency of the monetary policy to fight these weaknesses, a few legal modifications would be a helpful, but these modifications seem to be difficult to obtain because constitutional amendments are needed. But, some other improvements do not require any legal modification, and only the implementation of practical improvements, mostly in the communication area and the discussion of information. As time goes on, the construction of credibility will increase the institutional strength *de facto*.

**The design of the monetary policy in *BANGUAT* reflects the early face of the transition between a regimen of added monetary objective and one of inflation objective.** *BANGUAT* states an inflation objective, but it is not for the mid term. In the context of a sketch of explicit goals of inflation, it is too far in advance to determine the use of its instrument and in the establishment of the prognosis of inflation as a middle objective of the policy. The actions of monetary policy are found in observed information and not in projected information. Besides, the function of the reaction of the policy is hard to understand for the market. Although *BANGUAT* has been successfully obtaining public support for its policies for having a good record in the consecution of inflation goals it also has a good communication policy.

**The process of how the decisions of monetary policy are adopted, confirm that *BANGUAT* is in the early phase of the transition to the regimen of explicit inflation goals.** In effect, a great number of indicators are evaluated with more frequency; the evaluation is based almost completely on judgment, that is why, to adopt a sketch of explicit inflation goals, it must be a really helpful structured analysis; the process to evaluate new information must be orientated more toward its financial consequences. As a result, the decisions to be made do not coincide with the establishment of a regimen of explicit inflation goals and gives emphasis to mid term inflation.

**To advance to the implementation of a regimen of explicit inflation goals, *BANGUAT* needs to develop a more solid prognosis system.** This system must contain the analysis of current information; foreseen for the short and mid term, and the risk and policies analysis. In the construction of this frame *BANGUAT* faces many challenges. The current analysis has to strengthen the significance, which includes the short term prognosis. For the prognosis of mid term inflation, a simple structural macroeconomic model, although it has to be adjusted in the future, has to be ready, as fast as possible. The makers of policies will have to learn to use the results of the mentioned model in decision making, besides coordinating the diverse experience used in the production of prognosis. This may require the redistribution of the resources within and between the departments of *Banco de Guatemala*. For the success of

*BANGUAT*, the construction of a prognosis system must be a priority for the institution.

**To adopt a regimen of explicit inflation goals, *BANGUAT* may possibly need to change some of its operational procedures.** First, it may redefine its multiple operations. Following the example of most central banks that have adopted the system of explicit inflation goals, they may choose operative variable as an objective interest rate level in short term in the market. *BANGUAT* will need to use the open market operations to regulate the liquidity in the market bank reserves consistent with the political rate. To evaluate the liquidity in the reserves market requires careful prognosis of the bank offer reserves and of the analysis of the factors which affects its demand, especially for the next day and for the rest of the period. While it obtains experience in the making of liquidity prognosis, *BANGUAT* may use an interest rates broker that must be tight enough to limit its volatility, but at the same time, be wide enough to stimulate the interbanking loans.

***BANGUAT* also has to separate its liquidity management operations in short term from the long term ones used to correct the unbalanced structural liquidity.** The open market operations of longer term must be conducted considering the prices set by the market and are not to be made more that once a week. The titles to be used to correct the structural unbalance must be issued with dates of set redemption, instead of set terms to allow fungible and increase its liquidity in the secondary market.

**The efforts to increase the liquidity of the public titles in the markets will help *BANGUAT* in the consecution of its objectives of monetary policy.** These efforts include the issue of dematerialized fungible values, besides to provide a central of values and a mechanism of liquidation of *delivery against payment* for the public values.

**General Recommendations for the support in the transition to a regimen of explicit inflation goals in Guatemala.**

**A. In the institutional market.**

To improve the relative communication of the role and adapted decisions by the Execution Committee.

Establish key meetings of the Execution Committee and with the calendar anticipatedly announce the mentioned meetings.

At the end of each key meeting, widely divulge the analysis of the content and the adopted decisions.

**B. In the area of the formulation of monetary policy (in consequence)**

To issue a press release immediately after making a modification of policy.

To anticipatedly specify which Execution Committee meetings may produce changes in policy.

To establish internal objectives of the inflation for the mid term.

To improve the management of the data base: possibly to create a centralized data base.

To build short term prognosis of the inflation with the help of other variables.

To check the structure of indicative variables: prognosis according to inflation related variables.

To include mid term stage sections of in the most important documents of the policy.

To build a structural model for the prognosis of inflation in mid term.

To establish the mechanism of transition of the monetary policy.

To build mid term prognosis.

To use the mid term prognosis for decision making; gradually to decrease the importance of the indicated variable, using them only for the evaluations of the policy preview of mid term inflation prognosis.

Announce the mid term inflation objectives to the public.

**C. In the operational frame of the monetary policy.**

To check the procedures of short term liquidity management.

To correct the structural unbalances of liquidity through weekly auctions.

To issue dematerialized values and provide a values central for public values.

To provide a mechanism of liquidity of delivery against payment for public values.

## ATTACHMENT 4

### ECONOMIC AND SOCIAL REACTIVATION PROGRAM 2004/2005 LET'S GO GUATEMALA

The VAMOS GUATEMALA program is a national initiative that looks to promote the economic activation and social harmony, through quick and wide impact programs. Within the program, outlined in the Government Plan 2004-2008 and in the defined commitments in the Peace Agreements, specific and measurable projects are presented, executed in the alliance of representative citizen groups, will propitiate a favorable climate toward productive investment and will generate concrete benefits for the population.

The objective of the program presents an economic activation based on the strengthening of the competitiveness of the national productive apparatus, as well as the creation and maintenance of a trust climate that favors productive investment.

The VAMOS GUATEMALA program that was begun in the second semester of 2004 and goes through to 2005, defines the fundamental objectives of Social Harmony and Competitiveness and Trust based on three big strategic components: *Guate Solidaria* [Guatemalan Solidarity], *Guate Crece* [Guatemala Grows] and *Guate Compite* [Guatemala Competes]. In this last one, the Macro Economic Administration is presented, which includes the institutional management of the *Banco de Guatemala*.

In the described context, in the Guatemala Competes component a consolidation of public finance and coordination among fiscal and monetary policy is presented and constitutes the Basic elements for the maintenance of the macro economic discipline. Particularly, it is worth highlighting that the maintenance and strengthening of a macro economic responsible management is a government objective that is not presented as an end in and of itself, but an indispensable requirement to generate the most favorable conditions for competitiveness, productive investment and welfare for the population.

Also, within the frame of the operative plan of the *Vamos Guatemala Program*, the *Banco de Guatemala* is one of the responsible institutions of both projects that have included the Strategic Component of Guatemala Competes, regarding Modernization Support of the Financial System. The first, refers to the modernization of the payment system and, the second, to the presentation of the ante-projects of the following laws: Pledging of goods, of Intermediary Non-banking Financial Companies (was substituted for the ante-project of the Micro Financing Stock Companies Law) and the Reciprocal Guarantees Stock Company System for the Micro, Small and Medium Businesses.

It is worth mentioning that in the strategic component of *Guate Crece*, the *Banco de Guatemala* is one of the responsible institutions of following through on the project of the Numismatic Museum in Antigua Guatemala.

Source: Document of the Government of the Republic "Construyendo Unidos un Mejor País" [Building a Better Country Together]. September, 2004.

## ATTACHMENT 5

### GUATEMALA: LEADING INTEREST RATE OF THE MONETARY POLICY- APPLIED TO THE METHODOLOGY USED BY PROFESSOR SEBASTIÁN EDWARDS IN 2000

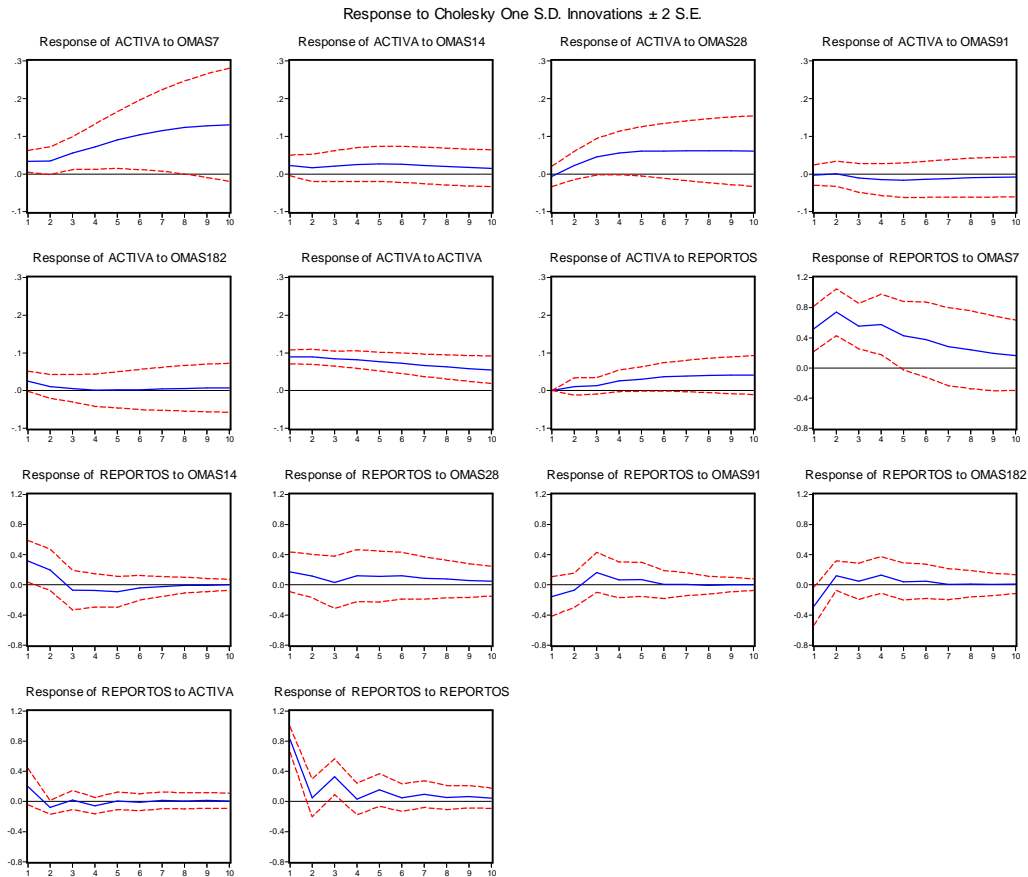
With the objective of selecting the interest rate that must be used by *Banco de Guatemala*, to conduct the monetary policy, Professor Edwards<sup>87</sup>, besides considering some theories; he made some econometric exercises, and he tried to give response to the following questions:

1. Which interest rate has a greater influence over the market interest rates that is more related with the economic activity?
2. Which is the reminder by which the monetary policy, understood as an exchange policy interest rate, affects the key variables? And;
3. Which is the interest rate that has greater effect over the aggregate demand and the inflation?

To give response to these questions Professor Edwards used autoregressive vectors and analyzed the functions that impulse the answers. For such questions he determined that the interest rate by which the Central Bank may reach its objectives is the OMAs of 28 days. The period of study was 1995 to May 2000. The object of the present study is to make the mentioned exercise current, including the interest rates of open market operations in terms from 7 to 14 days. Derived that in recent investigations it has been determined a structural break in the variables of monetary policy around 2000 exist, the period of study of this work is January 2000 to November 2004. To give response to the first question, a VAR was estimated in which the interest rate of the OMAs to 7, 14, 28, 91 and 182 days was included, the active and average weighted interest rates, the rate of repurchase of agreements, and the interest rate in United States Treasury Bills, to 90 days, as exogenous variable. The periodicity of the information is monthly and the functions of obtained impulse response are shown as following:

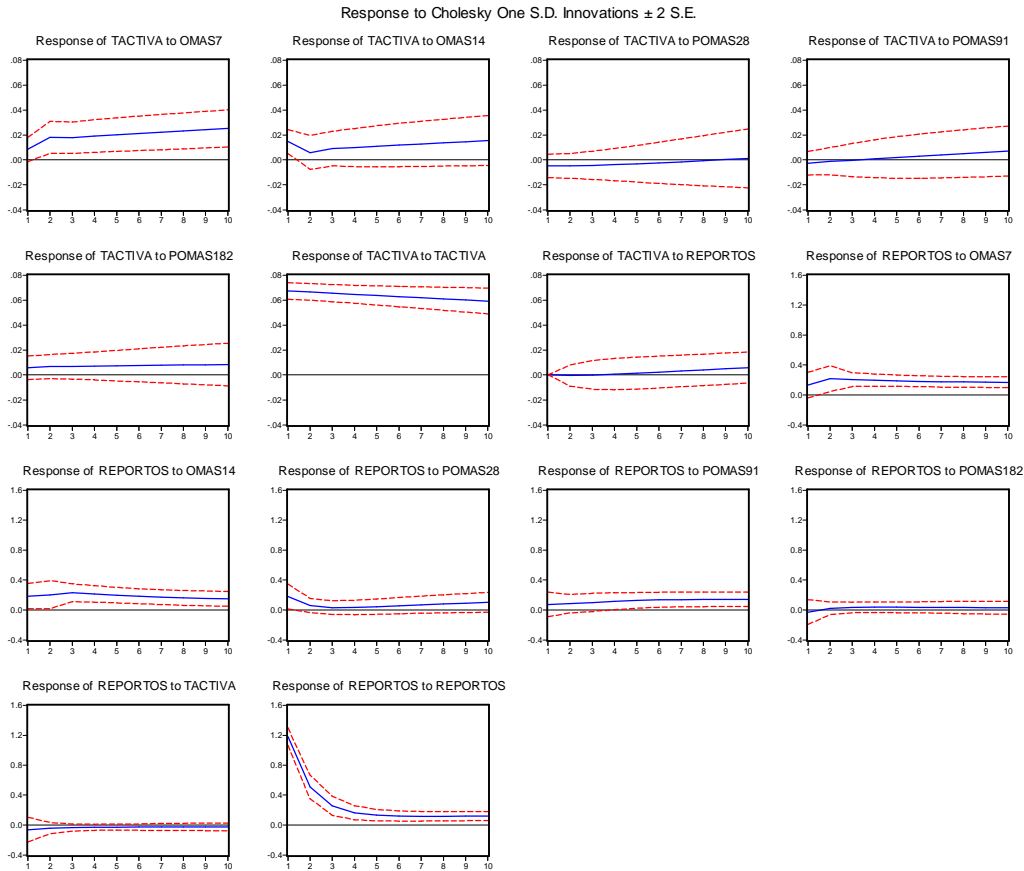
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<sup>87</sup> Edwards, Sebastián. *The Macroeconomic Situation in Guatemala: Evaluation and Recommendations about the Monetary and Exchange Policy*. July 27, 2000.

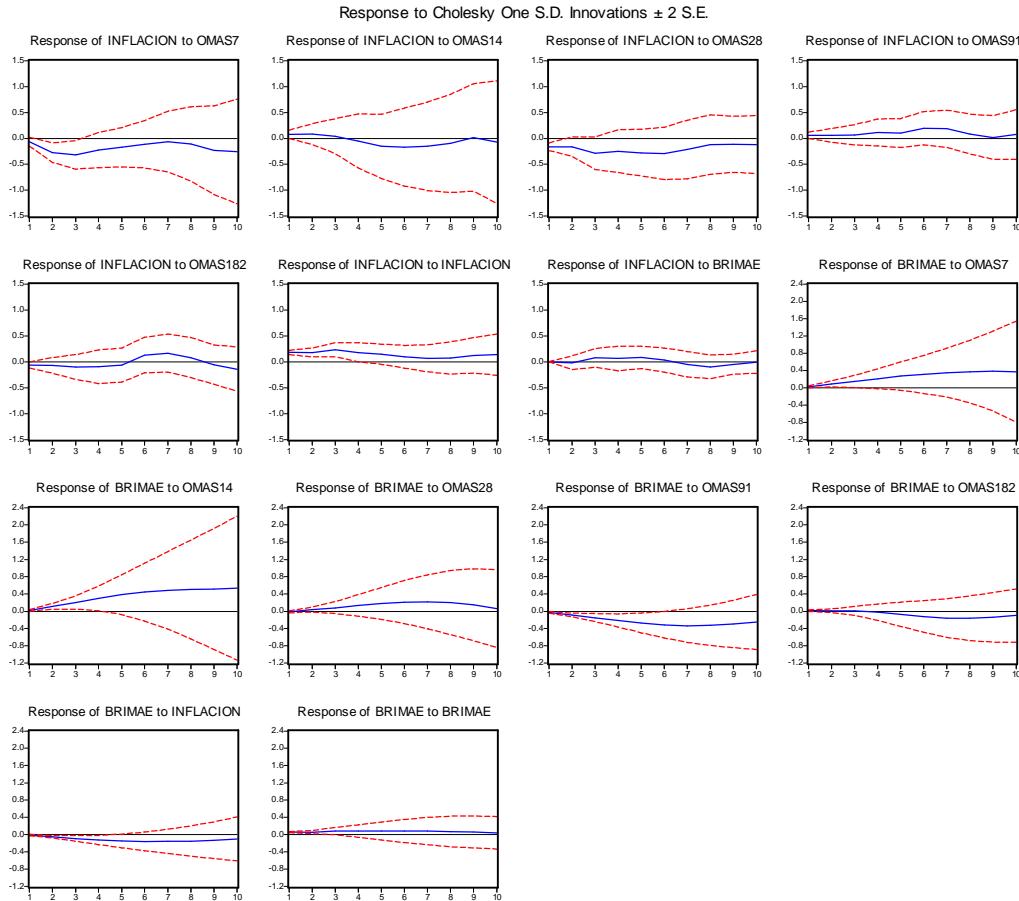


The impulse response functions must be interpreted as the response of one variable before shock, equivalent to a standard deviation in each of the variables. In the above graphs it can be appreciated that the responses of the active interest rate and of the repurchase agreement before the shock in the rates of OMAS to 7 days is of greater magnitude and durability compared with the response of the shocks in other rates. The rate of active interest response with a remainder of 3 months to a shock in the rate of 7 day OMAS and the effect will disappear after 7 months. About the rate of repurchase agreements, this immediate reaction and the effect of the shock will disappear in the fifth month. Based on this observation it may be concluded that the rate of OMAS to 7 days is the one that has greater influence over the other rates in the market and that, according to this, is the rate that must be used by *Banco de Guatemala* to influence other rates and by this reach monetary policy goals. Looking for consistency the above exercise was replicated with weekly information, obtaining the following results:





These results are consistent with the VAR estimated from monthly information. The rate that has more effect over the rates of the market is the one of the 7 day OMA. To give response to the second and third question, Professor Edwards used the functions to impulse responses of a VAR with the following variables: interest rate of OMAs to 28 days, the breach of IMAE (of the inter-annual variation of the index) regarding the long term tendency (obtained with the Hodrick and Prescott filter) and the inter-monthly variation of CPI. There were also included the interest rates of the United States Treasury Bills, to 90 days and the depreciation of the rate as exogenous variable. In the present exercise the rates of OMAs to 7, 14, 91 and 182 days were included, and an annual inflation was used with the objective of evaluating if there was any change with the new sample.



Professor Edwards judged these results by the capacity of the interest rates to affect the aggregate demand (through the breach of IMAE) and for having an effect over inflation. In the previous result it is observed that the rate of 7 day OMAS is the rate that has a greater effect (in magnitude and duration) over inflation, followed by the 28 day rate. Regarding the response of the IMAE breach (aggregate demand), this is significantly affected and with the expected sign by the 91 day OMA rate.

To conclude, the 7 day OMA rate is the rate that has greater effect over inflation and the 91 day rate over the aggregate demand. Additionally, the autoregressive vectors analysis was complemented with causality Granger proof. In general, it was found that the 7, 14, 28 and 91 day OMA rate was cause, in the Granger sense, the asset average weighted rate as well as the repurchase agreement rate (see charts 1 and 2). On the other hand, the 14 day OMA rate is the one that “causes” more significant inflation, followed by a 28

day rate. Lastly, under the criteria of Granger Cause any of the interest rates mentioned seem to affect aggregate demand.

In conclusion, according to the analysis of models VAR for the 2000-2004 period, the OMA 7 day interest rate is the one that has greater effect over the market rate, therefore, that the 91 day OMA rate is the one that generates more significant statistic response over the aggregate demand. The monthly and weekly results frequently proved to be consistent. This represents an important change regarding the study that Professor Edwards did for the 1995-2000 period, in which he determined that the leading rate of the monetary policy was the 28 day OMA rate. The Granger Cause of analysis is not overwhelming in distinguishing which is the leading rate of the monetary policy; therefore it was found that all rates, except the 182 day, to cause the market rates, in the Granger sense. The 14 day rate proved to have a greater effect over inflation, under this criterion, and none proved causing the aggregate demand.

**TABLE 1**

Pairwise Granger Causality Tests

Date: 12/09/04 Time: 10:38

Sample: 2000:01 2004:12

Lags: 1

Null Hypothesis:	Obs	F-Statistic	Probability
<hr/>			
OMAS14 does not Granger Cause OMAS7	48	0.95112	0.33465
OMAS7 does not Granger Cause OMAS14		6.36354	0.01525
<hr/>			
OMAS28 does not Granger Cause OMAS7	47	0.92976	0.34020
OMAS7 does not Granger Cause OMAS28		5.61284	0.02228
<hr/>			
OMAS91 does not Granger Cause OMAS7	47	3.32051	0.07522
OMAS7 does not Granger Cause OMAS91		14.1929	0.00049
<hr/>			
OMAS182 does not Granger Cause OMAS7	47	1.08504	0.30326
OMAS7 does not Granger Cause OMAS182		6.72816	0.01284
<hr/>			
ACTIVA does not Granger Cause OMAS7	47	1.27097	0.26569
OMAS7 does not Granger Cause ACTIVA		39.4808	1.3E-07

REPORTOS does not Granger Cause			
OMAS7	47	5.19774	0.02752
OMAS7 does not Granger Cause			
REPORTOS		9.92585	0.00293
OMAS28 does not Granger Cause			
OMAS14	59	0.20270	0.65429
OMAS14 does not Granger Cause			
OMAS28		10.1402	0.00237
OMAS91 does not Granger Cause			
OMAS14	59	0.23339	0.63091
OMAS14 does not Granger Cause			
OMAS91		18.0927	8.1E-05
OMAS182 does not Granger Cause			
OMAS14	59	0.27915	0.59935
OMAS14 does not Granger Cause			
OMAS182		7.25585	0.00931
ACTIVA does not Granger Cause			
OMAS14	59	0.11093	0.74033
OMAS14 does not Granger Cause			
ACTIVA		15.7607	0.00021
REPORTOS does not Granger Cause			
OMAS14	59	18.8128	6.1E-05
OMAS14 does not Granger Cause			
REPORTOS		8.75226	0.00452
OMAS91 does not Granger Cause			
OMAS28	59	0.26535	0.60850
OMAS28 does not Granger Cause			
OMAS91		25.9424	4.3E-06
OMAS182 does not Granger Cause			
OMAS28	59	1.38875	0.24360
OMAS28 does not Granger Cause			
OMAS182		11.0656	0.00156
ACTIVA does not Granger Cause			
OMAS28	59	0.02170	0.88341
OMAS28 does not Granger Cause			
ACTIVA		19.6305	4.4E-05
REPORTOS does not Granger Cause			
OMAS28	59	10.5784	0.00194
OMAS28 does not Granger Cause			
REPORTOS		6.29143	0.01506
OMAS182 does not Granger Cause			
OMAS91	59	3.77570	0.05704
OMAS91 does not Granger Cause			
OMAS182		13.9066	0.00045
ACTIVA does not Granger Cause			
OMAS91	59	0.45820	0.50125
OMAS91 does not Granger Cause			
ACTIVA		11.7091	0.00117

REPORTOS does not Granger Cause OMAS91	59	7.87074	0.00690
OMAS91 does not Granger Cause REPORTOS		16.1973	0.00017
ACTIVA does not Granger Cause OMAS182	59	5.23655	0.02591
OMAS182 does not Granger Cause ACTIVA		0.29617	0.58845
REPORTOS does not Granger Cause OMAS182	59	6.28905	0.01507
OMAS182 does not Granger Cause REPORTOS		4.01670	0.04990
REPORTOS does not Granger Cause ACTIVA	59	21.7826	1.9E-05
ACTIVA does not Granger Cause REPORTOS		3.77256	0.05714

**TABLE 2**

Pairwise Granger Causality Tests

Date: 12/09/04 Time: 10:39

Sample: 2000:01 2004:12

Lags: 4

Null Hypothesis:	Obs	F-Statistic	Probability
OMAS14 does not Granger Cause OMAS7	44	1.39986	0.25427
OMAS7 does not Granger Cause OMAS14		0.93530	0.45489
OMAS91 does not Granger Cause OMAS7	43	0.22668	0.92157
OMAS7 does not Granger Cause OMAS91		5.91769	0.00100
OMAS182 does not Granger Cause OMAS7	43	1.68667	0.17581
OMAS7 does not Granger Cause OMAS182		0.33893	0.84977
INFLACION does not Granger Cause OMAS7	43	0.81296	0.52575
OMAS7 does not Granger Cause INFLACION		1.34431	0.27372
BRIMAE does not Granger Cause OMAS7	41	0.89510	0.47827
OMAS7 does not Granger Cause BRIMAE		0.24838	0.90851
OMAS91 does not Granger Cause	57	0.51244	0.72685

OMAS14			
OMAS14 does not Granger Cause OMAS91		5.12275	0.00161
<hr/>			
OMAS182 does not Granger Cause			
OMAS14	57	9.03367	1.6E-05
OMAS14 does not Granger Cause OMAS182		12.3253	5.7E-07
<hr/>			
INFLACION does not Granger Cause			
OMAS14	55	1.70661	0.16477
OMAS14 does not Granger Cause			
INFLACION		4.69761	0.00291
<hr/>			
BRIMAE does not Granger Cause			
OMAS14	55	1.61460	0.18667
OMAS14 does not Granger Cause BRIMAE		0.04045	0.99678
<hr/>			
OMAS182 does not Granger Cause			
OMAS91	59	6.73519	0.00020
OMAS91 does not Granger Cause OMAS182		4.78398	0.00240
<hr/>			
INFLACION does not Granger Cause			
OMAS91	55	3.36879	0.01686
OMAS91 does not Granger Cause			
INFLACION		1.98724	0.11225
<hr/>			
BRIMAE does not Granger Cause			
OMAS91	57	1.78993	0.14630
OMAS91 does not Granger Cause BRIMAE		0.61522	0.65376
<hr/>			
INFLACION does not Granger Cause			
OMAS182	55	1.59061	0.19282
OMAS182 does not Granger Cause			
INFLACION		1.94388	0.11913
<hr/>			
BRIMAE does not Granger Cause			
OMAS182	57	2.14947	0.08905
OMAS182 does not Granger Cause BRIMAE		0.20413	0.93488
<hr/>			
BRIMAE does not Granger Cause			
INFLACION	53	5.41967	0.00123
INFLACION does not Granger Cause			
BRIMAE		0.96142	0.43816
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