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**REPORT OF THE BOARD OF DIRECTORS  
TO THE CONGRESS OF THE REPUBLIC**

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MARCH 2004

BANCO DE LA REPÚBLICA

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**BOARD OF DIRECTORS**

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*Bogotá, March 30, 2004*

*Chairmen and other members  
Constitutional Standing  
Third Committees  
Senate of the Republic  
Chamber of Representatives  
Bogotá*

*Dear Sirs:*

*The Board of Directors of Banco de la República, in accordance with Article 5 of Law 31 of 1992, submits for consideration of the Congress of the Republic a report on the macroeconomic results for 2003 and 2004 to date, the targets adopted by the Board for this year, and the outlook for the main macroeconomic variables. The last section reports on the composition of the international reserves and the projected financial situation of Banco de la República in 2004.*

*Sincerely,*



*Miguel Urrutia Montoya  
General Manager*

# I

## INTRODUCTION

The Report presented to the Congress of the Republic analyses the results of the economy in 2003 and the outlook for 2004. Last year was characterized by more vigorous economic growth fuelled by stronger domestic demand and the gradual recovery of external demand. As a result, the tradable and non-tradable goods sectors both expanded strongly. Colombia enjoyed one of the highest growth rates in Latin America, 3.74% against 1.5% for the region. Gross domestic product (GDP) per capita increased 1.8 percentage points, after over five years of negative growth. After excluding illegal crops from the calculation, GDP grew over 4.0% in 2003.

The domestic recovery, which is basically attributable to the trend in the private sector, was partly due to increased confidence in the economy, result in turn of the present Government's democratic security policies, the continuation of the fiscal adjustment, and the monetary policy of the last five years, which has maintained low interest rates for a long period. Thanks to these factors, investment grew sharply to 15.6% of GDP, higher than the 13.0% recorded between 1999 and 2002. Although, this investment rate is still lower than the average (18.5%) of the last three decades, this expansion is one of the most promising factors in the current recovery of growth, since it indicates that agents' expectations are positive and that high growth rates could persist over the next few years.

The reactivation of external demand in the second part of the year was due to the economic upturn in the United States and other countries, which counteracted the negative impact of the contraction of the Venezuelan economy, whose product shrank 9.5% in real terms in 2003. Non-traditional exports, including gold and emeralds, grew 5.3% in dollars, although the drop in sales to Venezuela was over 39.0%. The external environment was also characterized by generally stronger demand and higher commodity prices. Traditional sales grew over 12.9% in nominal terms in 2003. The dollar value of remittances from Colombians resident abroad increased 24.1% and the country-risk premium fell significantly. The trend in external conditions was mainly determined by the expansionary economic policies of the United States and the devaluation of the dollar against other currencies. The encouraging trend in exports and the increased flows of transfers and capital led, as in other emerging countries, to a nominal appreciation of the

exchange rate of around 5.42% from June 30, 2003 to March 24, 2004. Even so, the real exchange rate is at an historically high level following the major devaluation of late 2002 and early 2003.

In a relatively favorable external context and with the recovery of the confidence of economic agents, the results of monetary policy, which in recent years had been rather counter-cyclical, began to be felt. The policy of maintaining historically low real interest rates for a long period reduced the risk of non-payment and released funds for debt refinancing, which led to the recovery of the financial sector simultaneously with progress in the area of democratic security and the fiscal adjustment process, as well as restoring confidence in the economy. This combination of factors determined that, after several years of negative growth, loans grew 3.2% in real terms in 2003. Commercial loans and consumer credit recovered at an even higher rate.

The higher economic growth in 2003 was accompanied by much more vigorous creation of employment than in recent years. Although unemployment continues high in the country, its growth rate slowed by over three percentage points during the year from 15.6% to 12.3% in December 2003 against the same month in 2002.

While the economy picked up, inflation dropped from 2002 levels, with a change in the consumer price index (CPI) of 6.49% against 6.99% the year before. However, this rate was still above the inflation 5% to 6% target fixed by the Board of Directors of Banco de la República (the Board) for 2003. The items that pushed prices up were related to sectors with controlled prices which experienced temporary supply shocks, mainly food and those affected by the reform of the value added tax (VAT) in early 2003.

The outlook for 2004 is for stronger growth. According to the Government's latest projections, the growth rate could be 3.8% or even higher. The tradable sectors are expected to continue growing as a consequence of the persistently high level of commodity prices and the fast growth of the GDPs of our trading partners, while non-tradables will benefit from buoyant domestic demand, led by high investment rates in construction and other sectors. Also this year, private consumption is expected to grow over 3.0% in real terms, a trend that is already reflected in most of the surveys on this variable. The higher rate of economic growth will sustain rising employment in a context of lower inflation.

Following the forecast of lower inflation, partly due to the appreciation of the exchange rate, the Board cut intervention rates by 25 basis points (bp) in February and March 2004 on each occasion. Also, recognizing the benefits of accumulating international reserves in order to reduce the vulnerability of the economy, the Board bought US\$500 million on the exchange market in December and January, and announced on March 19 a new intervention of US\$700 million maximum for the coming months.

Although the economic outlook is positive, the risks that the country could face in the coming months should not be underestimated. The main risk is the possibility of a substantial change on the external front, which could reverse current trends in capital flows. If this occurs, there are

still weak aspects in the Colombian economy that would be negatively affected by an abrupt reversal. The country is characterized by the serious structural problem of a very low savings rate which increases dependency on external financing, which is volatile by nature. Part of the problem of the low level of domestic savings is associated with the high deficit on public finances. Although the target agreed by the International Monetary Fund (IMF) was achieved with the 2.8% deficit of GDP in 2003, the outlook for public finances is still troubling, and a significant fiscal adjustment will have to be put through in 2004 and future years to reduce the economy's vulnerability. The National Government and the Congress of the Republic will have to continue working together in the search for solutions through structural reforms, to consolidate a 3.0% primary fiscal surplus, which would guarantee a reduction in public borrowing to below 45.0% of GDP in the medium term.

Chapter IV of the report analyses the current level of the international reserves, as is customary in the reports of the Board of Directors to the Congress of the Republic. On this occasion, the report includes the analysis, made by the Bank at the Government's request, on the use of a portion of the international reserves to pre-pay part of the country's external debt. The technical study of this proposal took into account various opinions that are synthesized in this chapter. The study concludes that the level of reserves is adequate and recommends that no more than US\$500 million should be used to pay external debt because of the risks involved.

Since the analysis, the country's external situation has improved considerably, which led the Bank to intervene in the foreign-exchange market and build up reserves. Despite these positive external developments, the conclusions of the document are still valid, and have even been strengthened. Although the external situation looks very favorable, this does not mean that the country is immune from a crisis in the medium term, which is the main criterion used to reach the conclusion that the current level of international reserves is adequate. In fact, this risk has increased since the favorable external situation could be a temporary phenomenon associated with the expansionary policies of the United States that are not sustainable in the medium term. Even if they were, as already mentioned the Colombian economy has structural weaknesses that have still to be resolved. In these conditions, the risk of a possible sudden reversal of capital flows is significant.

Finally, Chapter V contains the financial statements of Banco de la República. Consistent with the austerity policy, which has characterized the Bank in recent years, the results show that expenses declined for the third consecutive year in real terms. As a result of this and the trend in the euro and the yen, which overtook forecasts, the Bank reported profit of 1.4 trillion pesos, higher than the projections of 660 billion pesos in July 2003. Out of these profits, 802.8 billion pesos were transferred to the National Government after creating the legal reserves. For 2004, profits of 335.4 billion pesos are projected, down from 2003 because of the expected lower revaluation of the euro and the fall in international interest rates.

## II

### GROWTH OF GDP, INFLATION AND EMPLOYMENT

In 2003, the economy grew at a rate of 3.74%, the highest for five years. Excluding illegal crops, the rate was around 4.0%. Colombia was one of the fastest growing economies in the Latin American context, where overall expansion was 1.5%. Colombian growth was only outperformed by Argentina (7.3%), Costa Rica (5.6%) and Peru (4.0%). For the first time in five years, GDP per capita increased 1.8%. Along with the expanding economy, the employment situation improved throughout 2003, reflected in the steady creation of jobs and a drop in the unemployment rate of three percentage points, comparing December data with the same month in 2002. Although the latest information for January is not so encouraging, the results of the next few months are needed to show the real impact of the economic recovery on the labor situation in the country.

The positive change in economic trends is attributable to a series internal and external factors. On the domestic front, demand was stimulated by a strong 18.7% expansion of investment in real terms, led by growth in construction (19.4%) and investment in other industrial sectors (7.9%). The fact that the recovery

is based on higher investment is a promising sign which could lead to prolonged growth.

The restoration of confidence in the country were mainly the result of the Government's actions on democratic security, progress on the fiscal adjustment and the monetary policy of low interest rates, which were the factors that contributed most to the improvement. In the external environment, the country received a favorable shock, particularly in the second half of the year, reflected in a sharp rise in external demand and a significant improvement in the terms of trade. Also access to international credit markets improved with lower costs in 2003 and in 2004 to date.

This favorable external environment is mostly due to the recovery of growth in the United States, stimulated by expansionary fiscal and monetary policies that began to be felt from the second quarter of the year. The US growth rate was 3.1% in 2003, up from 2.4% in 2002. The rate for 2004 is expected to be between 3.0% and 4.0%. The policy of low interest rates in United States, combined with an increase in the fiscal and current-account deficits, weakened the dollar



against other currencies and stimulated capital flows into emerging countries.

From the financial point of view, the low level of international interest rates has reduced the cost of foreign borrowing. In these conditions, the authorities in some countries in the region, including Colombia, have been able to cut domestic interest rates, following an anti-cyclical monetary policy. The high growth rate of Asian countries, especially China, has been the result of this type of policy. In this situation, the expansionary monetary policy in the United States has stimulated stronger growth in the world economy, fuelling stronger demand and higher commodity prices. These developments have, in turn, strengthened the positive impact on goods-exporting economies, such as Colombia. However, this process has been accompanied by an appreciation of the exchange rate of most currencies in relation to the dollar.

In 2004, these trends in world growth are expected to intensify. In Colombia, the favorable external situation combined with the domestic climate of confidence point to economic growth at rates of 3.8% or even higher, in a context of a lower inflation target between 5% and 6%.

Although the outlook is promising, there are still some risks that should not be underestimated. Colombia's current external situation could change rapidly, as has happened in the past. Capital flows could turn negative; for example, if US interest rate policy changes or a crisis of confidence breaks out in emerging markets. The country must be prepared for a reversal of this nature in order to protect its achievements in economic growth. The Colombian economy still has weaknesses that make it especially vulnerable in a more adverse external situation. The main risk relates to the low rate of domestic savings,

which increases our dependence on external capital flows. One of the causes of low savings is the fiscal imbalance<sup>1</sup>.

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#### A. ECONOMIC ACTIVITY

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The favorable external context stimulated growth of the tradable goods sector in 2003. In particular, higher commodity prices strongly improved the terms of trade against the levels of the two previous years. Combined with stronger world demand, traditional exports grew strongly from early 2003, led by coal, gold and ferronickel (Figure 1). The improvement in external demand also resulted in a recovery of non-traditional industrial exports to the United States, offsetting the contraction in sales to Venezuela and Ecuador.

World growth, low international interest rates and the devaluation the dollar, and rising expectations about the Colombian economy and the region also explain the increase in the flow of remittances from Colombians resident abroad. These factors were reflected in a steady fall in the country risk premium. All this contributed to an increase in national income, which is one of the factors behind the recovery of the economy.

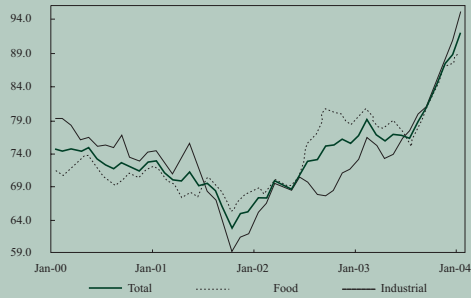
Simultaneously, as a consequence of the improved climate of confidence, domestic demand grew sharply from the second quarter of 2002. The recovery associated with the trend in private demand is largely attributable to the long period of low real interest rates, which cut the cost and levels of borrowing and guaranteed a healthy debt service

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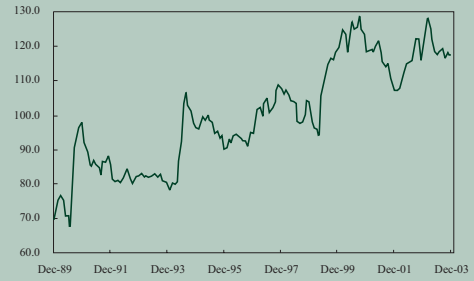
<sup>1</sup> For a deeper analysis of this issue, see Chapter III, Macroeconomic Policy and the section on fiscal policy.

**FIGURE 1**  
**MAIN CHARACTERISTICS OF COLOMBIA'S EXTERNAL ENVIRONMENT IN 2003**

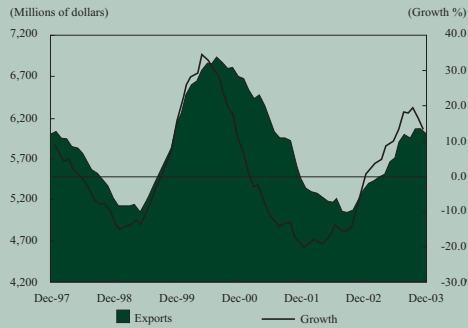
**MONTHLY PRICE INDEX  
 OF BASIC PRODUCTS  
 (1995 = 100)**



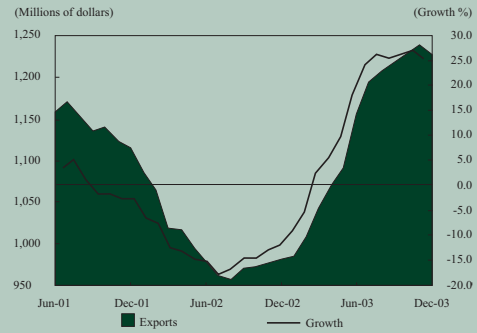
**TERMS OF TRADE  
 (GEOMETRIC AVERAGE,  
 JUL/98-JUN/99 = 100)**



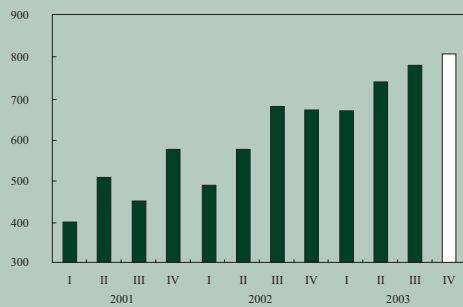
**TRADITIONAL EXPORTS  
 (LAST 12 MONTHS)**



**NON-TRADITIONAL INDUSTRIAL EXPORTS  
 TO THE UNITED STATES  
 (LAST 12 MONTHS)**



**WORKERS' REMITTANCES  
 (MILLIONS OF DOLLARS)**



**EMBI+ COLOMBIA  
 (BASIS POINTS)**



Source: Banco de la República and National Administrative Statistics Department (DANE).

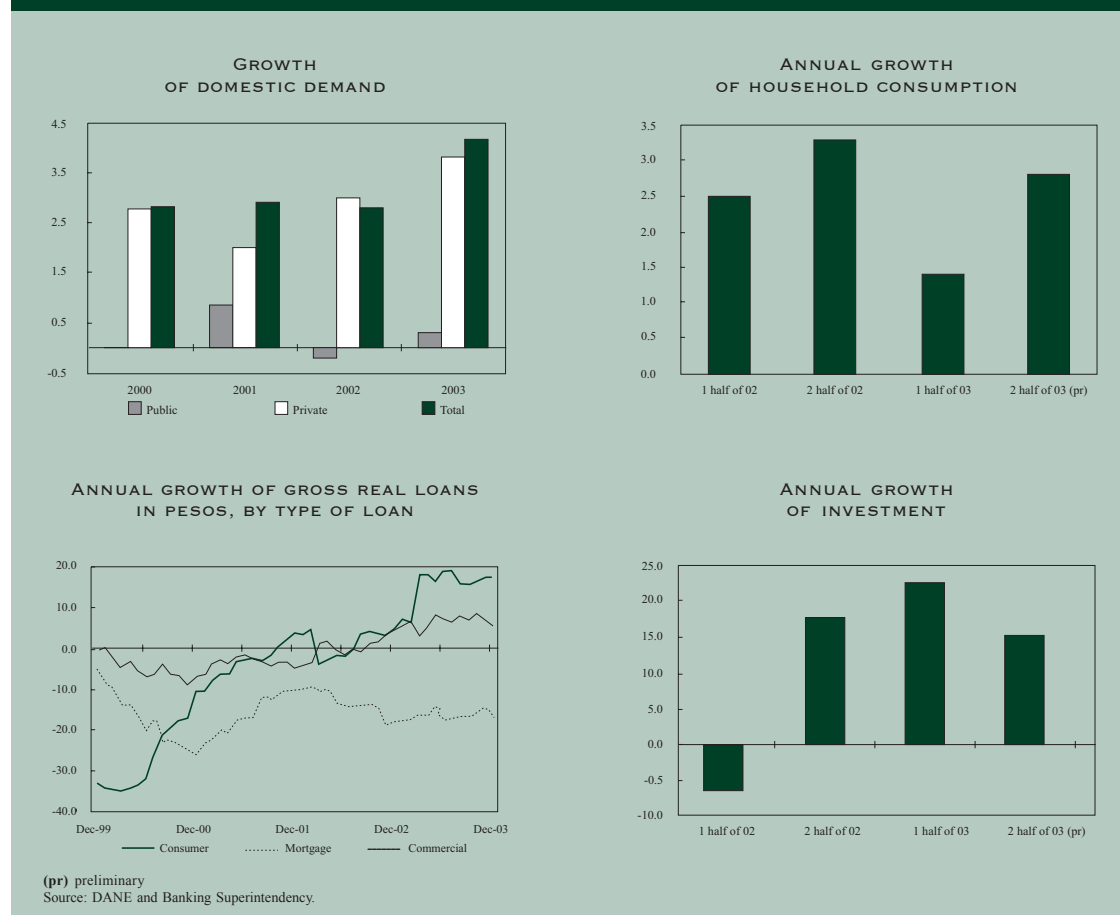
for borrowers and lenders. This situation was reflected in the recovery of credit, which in late 2003 showed real positive growth of 3.2% (figures to December) for the first time in several years. The growth of commercial loans and consumer credit has been substantially greater (Figure 2).

The outlook for 2004 is promising. The economy is expected to continue growing at rates of 3.8% or even higher (Table 1). Private consumption could continue to pick up thanks to the growth of household disposable income, despite higher taxes

associated with the recent tax reform. This factor could have been more than offset by higher economic growth, the improved terms of trade, a high volume of transfers from abroad, and expanding employment. The upturn in consumption is also the result of the low level of real interest rates and the strong growth of consumer credit. Finally, the increase in asset prices has a positive wealth effect and the consumer confidence indicators have systematically improved.

Private investment will continue to stimulate growth of domestic demand due to low interest rates, the

**FIGURE 2**  
**CHARACTERISTICS OF THE RECOVERY OF DOMESTIC DEMAND**  
**AND THE CONTRIBUTION OF CREDIT, 2003**  
**(PERCENTAGE)**



**TABLE 1**  
**ANNUAL GROWTH OF GDP - DEMAND SIDE**  
(PERCENTAGE CHANGE)

|  | 2002 (pr) |        |        |        |        | 2003 (pr) |        |        |        |               | 2004  |  |
|--|-----------|--------|--------|--------|--------|-----------|--------|--------|--------|---------------|-------|--|
|  | I         | II     | III    | IV     | Annual | I         | II     | III    | IV     | Annual (proj) |       |  |
|  |           |        |        |        |        |           |        |        | 1/     | 1/            |       |  |
| <b>Gross domestic product</b>                              | 0.03      | 2.37   | 1.92   | 2.72   | 1.76   | 3.82      | 2.36   | 4.17   | 3.49   | 3.74          | 3.80  |  |
| Total imports  | (8.12)    | (1.03) | 4.26   | 8.20   | 0.83   | 9.39      | 1.87   | 10.32  | 8.60   | 9.54          | 4.60  |  |
| <b>Total final supply</b>                                  | (1.26)    | 1.83   | 2.29   | 3.58   | 1.62   | 4.64      | 2.28   | 5.15   | 5.17   | 4.65          | 3.80  |  |
| Final consumption  | 1.96      | 2.36   | 2.33   | 2.67   | 2.33   | 1.00      | 1.64   | 1.61   | 3.63   | 2.12          | 3.20  |  |
| Households 2/  | 2.52      | 2.57   | 2.73   | 3.92   | 2.94   | 1.03      | 1.83   | 2.20   | 3.48   | 2.39          | n.a.  |  |
| Final domestic consumption households 3/                   | 2.15      | 2.22   | 2.65   | 3.57   | 2.65   | 1.25      | 1.81   | 2.24   | 3.38   | 2.36          | n.a.  |  |
| Non-durables   | 0.34      | 1.00   | 1.41   | 1.01   | 0.94   | (1.03)    | (1.36) | 1.04   | 2.16   | 0.83          | n.a.  |  |
| Semi-durables  | 5.29      | 0.97   | 7.61   | 21.00  | 8.72   | (1.05)    | 8.60   | 2.94   | 3.46   | 2.76          | n.a.  |  |
| Services   | 1.92      | 1.96   | 1.83   | 1.84   | 1.89   | 2.90      | 2.97   | 2.87   | 2.52   | 2.81          | n.a.  |  |
| Durables   | 13.01     | 16.61  | 10.15  | 6.60   | 11.41  | 8.72      | 4.00   | 4.47   | 18.06  | 8.92          | n.a.  |  |
| Government   | 0.39      | 1.77   | 1.20   | (0.88) | 0.62   | 0.92      | 1.09   | (0.11) | 4.08   | 1.35          | n.a.  |  |
| Gross capital formation                                    | (17.42)   | 4.69   | 15.26  | 20.40  | 5.55   | 38.19     | 7.09   | 17.10  | 13.72  | 18.67         | 10.20 |  |
| Fixed gross capital formation                              | 1.01      | 7.56   | 7.15   | 11.48  | 6.96   | 16.62     | 5.85   | 12.78  | 15.48  | 13.12         | n.a.  |  |
| Agropecuario, Agriculture, forestry, hunting and fisheries | 10.47     | 14.78  | 17.26  | 11.42  | 13.43  | (0.14)    | 1.31   | 1.80   | (0.64) | (1.54)        | n.a.  |  |
| Machinery and equipment                                    | (1.87)    | (3.31) | 5.21   | 5.65   | 1.47   | 12.00     | 10.45  | 21.82  | 26.78  | 20.43         | n.a.  |  |
| Transport equipment  | (18.65)   | 8.23   | 15.25  | 25.78  | 8.36   | 62.88     | (6.29) | (2.62) | (7.80) | 5.07          | n.a.  |  |
| Buildings  | 29.33     | 33.11  | 23.20  | 33.26  | 29.72  | 8.84      | 19.13  | 22.63  | 25.97  | 19.38         | n.a.  |  |
| Civil works  | (16.52)   | (2.49) | (7.65) | (5.60) | (7.86) | 24.86     | (9.83) | (1.54) | 0.95   | 2.51          | n.a.  |  |
| <b>Subtotal: Final domestic demand</b>                     | (1.02)    | 2.72   | 4.25   | 5.31   | 2.82   | 5.77      | 2.49   | 4.14   | 5.40   | 4.73          | 4.50  |  |
| <b>Total exports</b>                                       | (2.44)    | (2.69) | (7.59) | (5.26) | (4.50) | (1.21)    | 1.19   | 10.88  | 3.88   | 4.17          | 3.50  |  |
| <b>Total final demand</b>                                  | (1.26)    | 1.83   | 2.29   | 3.58   | 1.62   | 4.64      | 2.28   | 5.15   | 5.17   | 4.65          | 3.80  |  |

n.a. not available

(pr) preliminary

(proj) Bank's own projection.

1/ The figures for 4Q and the total for 2004 are preliminary at March 30, 2004. The rest of the figures for 2003 and 2002 are preliminary to March 29, 2004.

2/ Includes purchases of goods by residents made abroad and excludes purchases by non-residents made in the country.

3/ Final consumption of resident households made in the country.

Source: DANE.

easy financing conditions in the economy (the growth of M3 and credit), the possibility of capital inflows and expectations of higher profits in the future. Company profits increased substantially in the last year (Table 2) which made possible the financing of higher levels of investment, along with the effect of the recently passed tax incentive for plowing back profits. As mentioned earlier, capacity utilization is already relatively high in various sectors,

so investment decisions are possible in the short term. Lastly, the climate of confidence and security has clearly improved and this situation is expected to continue in the future.

In this context, economic growth in 2004 could be higher than in 2003 (3.74%) led by sectors such as construction (10.2%), transport (6.1%), commerce (5.1%) and industry (4.5%).

**TABLE 2**  
**FINANCIAL RESULTS OF COMPANIES THAT REPORT**  
**TO THE SECURITIES SUPERINTENDENCY**  
**(SAMPLE OF 116 NON-FINANCIAL COMPANIES)**

|                   | December                    |            | Growth  |                      |
|-------------------|-----------------------------|------------|---------|----------------------|
|                   | 2002<br>(Millions of pesos) | 2003       | Nominal | Real<br>(Percentage) |
| Total assets      | 53,011,058                  | 59,467,575 | 12.2    | 5.3                  |
| Total liabilities | 20,038,946                  | 21,132,177 | 5.5     | (1.0)                |
| Total equity      | 32,972,112                  | 38,335,398 | 16.3    | 9.2                  |
| Operating income  | 23,772,747                  | 26,686,149 | 12.3    | 5.4                  |
| Gross profit      | 8,357,255                   | 9,406,524  | 12.6    | 5.7                  |
| Operating profit  | 2,511,222                   | 3,440,076  | 37.0    | 28.6                 |
| Profit before tax | 1,738,476                   | 2,898,746  | 66.7    | 56.6                 |
| Profit and loss   | 1,138,939                   | 2,252,886  | 97.8    | 85.7                 |

Source: Securities Superintendency

## B. BALANCE OF PAYMENTS

### 1. Balance of payments in 2003

The Colombian balance of payments produced a current-account deficit of US\$1.39 billion (1.8% of GDP) and an almost identical amount of net capital inflow in 2003 (US\$1.38 billion). The gross reserves were almost unchanged from 2002 and the balance at December 2003 was US\$10.92 billion (Table 3).

#### *a. Current account*

In 2003 the deficit on current account fell US\$192 million from 2002, to which the increase of US\$682 million in current transfers made an important contribution. The trade balance reported a surplus of US\$89 million, down US\$136 million from 2002, result of exports of US\$13.58 billion and imports of US\$13.49 billion.

Table 4 summarizes the trend in exports by product in 2003. Export growth was due to more vigorous sales of traditional products (US\$694 million), especially coal which grew US\$430 million. The increase in hydrocarbons sales (US\$108 million) contributed to this trend, based on higher export prices which rose from an annual average of US\$24.22 per barrel in 2002 to US\$28.62 per barrel in 2003. Sales of ferronickel and coffee also improved by US\$121 million and US\$34 million respectively. Non-traditional exports increased US\$326 million in 2003 due to sales of mining products (US\$531 million), overtaking external revenue from coal sales which increased US\$491 million as a result of higher export volumes<sup>2</sup> and better international prices<sup>3</sup>. In contrast, export revenue from sales of transport material, machinery

<sup>2</sup> One explanation of this trend is the shift in the composition of metal exports to gold bullion exports to the detriment of gold pigment, which had benefited from the CERT until the end of 2002, when the subsidy was eliminated.

<sup>3</sup> Exports of non-monetary gold and emeralds were reclassified into non-traditional exports. This reclassification facilitates comparison with the statistics for non-traditional exports published by DANE.

TABLE 3  
COLOMBIAN BALANCE OF PAYMENTS: SUMMARY

|  | Millions of dollars |             |                | As % of GDP  |             |                | Difference<br>2003-2002<br>US\$<br>millions |
|--|---------------------|-------------|----------------|--------------|-------------|----------------|---|
|  | 2002<br>(pr)        | 2003<br>(e) | 2004<br>(proj) | 2002<br>(pr) | 2003<br>(e) | 2004<br>(proj) |   |
| <b>I. Current account</b>                          | (1,580)             | (1,389)     | (2,335)        | (2.0)        | (1.8)       | (2.6)          | 192   |
| Revenue  | 17,636              | 19,345      | 20,424         | 22.2         | 25.0        | 22.6           | 1,709                                       |
| Expenditure  | 19,216              | 20,733      | 22,759         | 24.2         | 26.8        | 25.2           | 1,517                                       |
| <b>A. Non-factor goods and services</b>            | (1,233)             | (1,384)     | (2,193)        | (1.6)        | (1.8)       | (2.4)          | (151)                                       |
| 1. Goods   | 225                 | 89          | (633)          | 0.3          | 0.1         | (0.7)          | (136)                                       |
| Exports  | 12,302              | 13,576      | 14,464         | 15.5         | 17.6        | 16.0           | 1,274                                       |
| Imports  | 12,077              | 13,487      | 15,097         | 15.2         | 17.4        | 16.7           | 1,410                                       |
| 2. Non-factor services                             | (1,458)             | (1,473)     | (1,559)        | (1.8)        | (1.9)       | (1.7)          | (15)  |
| Exports  | 1,858               | 1,931       | 2,014          | 2.3          | 2.5         | 2.2            | 73  |
| Imports  | 3,316               | 3,405       | 3,574          | 4.2          | 4.4         | 4.0            | 89  |
| <b>B. Income from factors</b>                      | (2,820)             | (3,159)     | (3,415)        | (3.5)        | (4.1)       | (3.8)          | (339)                                       |
| Revenue  | 699                 | 475         | 464            | 0.9          | 0.6         | 0.5            | (223)                                       |
| Expenditure  | 3,518               | 3,634       | 3,879          | 4.4          | 4.7         | 4.3            | 116   |
| <b>C. Current transfers</b>                        | 2,473               | 3,154       | 3,272          | 3.1          | 4.1         | 3.6            | 682   |
| Revenue  | 2,777               | 3,362       | 3,482          | 3.5          | 4.3         | 3.9            | 585   |
| Expenditure  | 304                 | 207         | 210            | 0.4          | 0.3         | 0.2            | (97)  |
| <b>II. Capital and financial account</b>           | 1,238               | 1,384       | 2,846          | 1.6          | 1.8         | 3.2            | 146   |
| <b>A. Financial account</b>                        | 1,238               | 1,384       | 2,846          | 1.6          | 1.8         | 3.2            | 146   |
| 1. Long-term financial flows                       | (1,485)             | 2,016       | 1,544          | (1.9)        | 2.6         | 1.7            | 3,501                                       |
| a. Assets  | 851                 | 110         | 111            | 1.1          | 0.1         | 0.1            | (741)                                       |
| i. Colombian direct investment abroad              | 857                 | 110         | 111            | 1.1          | 0.1         | 0.1            | (747)                                       |
| ii. Loans 1/                                       | (5)                 | 0           | 0              | (0.0)        | 0.0         | 0.0            | 5   |
| iii. Financial leases                              | 0                   | 0           | 0              | 0.0          | 0.0         | 0.0            | 0   |
| iv. Other assets                                   | (1)                 | 0           | 0              | (0.0)        | 0.0         | 0.0            | 1   |
| b. Liabilities                                     | (605)               | 2,152       | 1,681          | (0.8)        | 2.8         | 1.9            | 2,757                                       |
| i. Foreign direct investment in Colombia           | 2,043               | 1,623       | 1,293          | 2.6          | 2.1         | 1.4            | (420)                                       |
| ii. Loans 1/                                       | (2,485)             | 790         | 665            | (3.1)        | 1.0         | 0.7            | 3,275                                       |
| Public sector                                      | (1,299)             | 1,316       | 1,226          | (1.6)        | 1.7         | 1.4            | 2,615                                       |
| Private sector                                     | (1,187)             | (527)       | (560)          | (1.5)        | (0.7)       | (0.6)          | 660   |
| iii. Financial leases                              | (162)               | (260)       | (277)          | (0.2)        | (0.3)       | (0.3)          | (98)  |
| Public sector                                      | (3)                 | (19)        | 16             | (0.0)        | (0.0)       | 0.0            | (16)  |
| Private sector                                     | (160)               | (242)       | (293)          | (0.2)        | (0.3)       | (0.3)          | (82)  |
| iv. Other liabilities                              | 0                   | 0           | 0              | 0.0          | 0.0         | 0.0            | 0   |
| Public sector                                      | 0                   | 0           | 0              | 0.0          | 0.0         | 0.0            | 0   |
| Private sector                                     | 0                   | 0           | 0              | 0.0          | 0.0         | 0.0            | 0   |
| c. Other long-term financial movements             | (30)                | (26)        | (26)           | (0.0)        | (0.0)       | (0.0)          | 4   |
| 2. Short-term financial flows                      | 2,724               | (632)       | 1,302          | 3.4          | (0.8)       | 1.4            | (3,355)                                     |
| a. Assets  | (2,335)             | 1,020       | (853)          | (2.9)        | 1.3         | (0.9)          | 3,354                                       |
| i. Portfolio investment                            | (2,029)             | 1,055       | (1,083)        | (2.6)        | 1.4         | (1.2)          | 3,084                                       |
| Public sector                                      | (1,627)             | 582         | (788)          | (2.0)        | 0.8         | (0.9)          | 2,209                                       |
| Private sector                                     | (402)               | 473         | (295)          | (0.5)        | 0.6         | (0.3)          | 875   |
| ii. Loans 1/                                       | (306)               | (35)        | 230            | (0.4)        | (0.0)       | 0.3            | 271   |
| Public sector                                      | 42                  | 0           | 0              | 0.1          | 0.0         | 0.0            | (42)  |
| Private sector                                     | (348)               | (35)        | 230            | (0.4)        | (0.0)       | 0.3            | 313   |
| b. Liabilities                                     | 389                 | 388         | 449            | 0.5          | 0.5         | 0.5            | (1)   |
| i. Portfolio Investment                            | 16                  | 0           | 0              | 0.0          | 0.0         | 0.0            | (16)  |
| Public sector                                      | (1)                 | 0           | 0              | (0.0)        | 0.0         | 0.0            | 1   |
| Private sector                                     | 17                  | 0           | 0              | 0.0          | 0.0         | 0.0            | (17)  |
| ii. Loans 1/                                       | 373                 | 388         | 449            | 0.5          | 0.5         | 0.5            | 15  |
| Public sector                                      | 109                 | (205)       | 0              | 0.1          | (0.3)       | 0.0            | (314)                                       |
| Private sector                                     | 264                 | 593         | 449            | 0.3          | 0.8         | 0.5            | 329   |
| B. Special capital flows                           | 0                   | 0           | 0              | 0.0          | 0.0         | 0.0            | 0   |
| <b>III. Net errors and omissions</b>               | 480                 | (179)       | 0              | 0.6          | (0.2)       | 0.0            | (660)                                       |
| <b>IV. Changes gross international reserves 2/</b> | 138                 | (184)       | 511            | 0.2          | (0.2)       | 0.6            | (322)                                       |
| <b>V. Balance of gross international reserves</b>  | 10,844              | 10,921      | 11,432         | 13.6         | 14.1        | 12.7           | 77  |
| <b>VI. Balance of net international reserves</b>   | 10,841              | 10,917      | 11,428         | 13.6         | 14.1        | 12.7           | 76  |
| Months of imports of goods                         | 10.77               | 9.72        | 9.09           |              |             |                |   |
| Months of imports of goods and services            | 6.88                | 6.38        | 6.08           |              |             |                |   |
| Nominal GDP in millions of dollars                 | 79,506              | 77,340      | 90,267         |              |             |                |   |
| <b>VII. Change in net international reserves</b>   | 188                 | (186)       | 511            | 0.2          | (0.2)       | 0.6            | (374)                                       |

2004 assumptions: Export prices: coffee US\$0.75/pound (ex-dock); oil US\$28.62/barrel; growth of goods imports 13.1% (12.0% without Plan Colombia and Plan Fortaleza).

(pr) preliminary (e) estimate. (proj) projected

1/ Includes portfolio investment, direct and commercial loans.

2/ According to balance-of-payments methodology.

Source: Banco de la República.

**TABLE 4**  
**EXPORTS FOB**  
**BY MAIN PRODUCTS AND ECONOMIC SECTORS (PR)**  
**(MILLIONS OF DOLLARS)**

|                                   | January-December |          | Variation |       |
|-----------------------------------|------------------|----------|-----------|-------|
|                                   | 2002             | 2003     | Absolut   | %     |
| <b>Traditional exports</b>        | 5,309.8          | 6,004.2  | 694.4     | 13.1  |
| Coffee                            | 772.2            | 806.3    | 34.1      | 4.4   |
| Coal                              | 990.2            | 1,420.8  | 430.6     | 43.5  |
| Ferronickel                       | 272.5            | 394.1    | 121.6     | 44.6  |
| Oil and products                  | 3,275.0          | 3,383.1  | 108.1     | 3.3   |
| <b>Non-traditional exports 1/</b> | 6,597.7          | 6,924.1  | 326.4     | 4.9   |
| Agriculture sector                | 1,382.8          | 1,362.9  | (19.9)    | (1.4) |
| Industrial sector                 | 4,953.7          | 4,768.5  | (185.3)   | (3.7) |
| Mining sector 2/                  | 261.1            | 792.7    | 531.6     | n.a.  |
| <b>Total exports</b>              | 11,907.5         | 12,928.3 | 1,020.8   | 8.6   |

n.a. Not available.

(pr) Preliminary.

1/ Does not include temporary exports, re-exports and others. Includes balance of payments adjustments.

2/ Includes gold and emeralds.

Source: DANE and Banco de la República.

**TABLE 5**  
**VALUE IN DOLLARS OF COLOMBIAN EXPORTS. 2003**  
**ANNUAL PERCENTAGE GROWTH**

|                                      | United States | Venezuela | Ecuador | Japan  | Germany | Mexico | Rest   | Total  |
|--------------------------------------|---------------|-----------|---------|--------|---------|--------|--------|--------|
| <b>Totals</b>                        | 14.8          | (39.0)    | (13.5)  | 2.7    | (20.4)  | 15.5   | 20.9   | 8.6    |
| <b>Non-traditional</b>               | 30.7          | (40.2)    | (13.0)  | (6.3)  | 35.9    | 5.8    | 10.4   | 4.9    |
| Agriculture sector                   | (1.9)         | (13.9)    | (45.9)  | 5.8    | 36.5    | 9.5    | (2.3)  | (1.4)  |
| Industrial sector                    | 25.8          | (42.2)    | (20.0)  | (12.0) | 35.5    | 6.0    | 6.9    | (3.7)  |
| Food, beverages and tobacco          | 25.4          | (22.4)    | (16.4)  | (23.2) | 15.2    | 31.0   | 24.1   | 9.1    |
| Thread and fabric                    | 30.6          | (22.4)    | 26.8    | 0.0    | 35.7    | 4.1    | 21.1   | 11.2   |
| Clothing                             | 50.7          | (50.0)    | 7.6     | 100.0  | 7.5     | 1.4    | 11.0   | 19.1   |
| Plastic and rubber products          | 0.2           | (60.6)    | 1.1     | n.a.   | 133.3   | (0.4)  | 73.1   | 5.0    |
| Leather and manufactures             | 4.4           | (48.8)    | (15.7)  | (54.0) | 44.9    | 15.9   | 10.6   | 4.3    |
| Wood and manufactures                | 147.8         | (68.7)    | 45.7    | n.a.   | (16.7)  | 59.6   | 3.0    | 36.5   |
| Printing and publishing              | 51.1          | (40.4)    | 10.7    | 11.3   | (60.0)  | 16.2   | 29.9   | 7.6    |
| Chemical industry                    | (27.2)        | (16.7)    | 7.1     | 190.7  | 151.6   | 8.1    | (9.5)  | (8.6)  |
| Non-metallic minerals                | 12.1          | (54.5)    | (12.8)  | 50.0   | n.a.    | 19.3   | 4.8    | 1.3    |
| Base metals industry                 | 29.0          | (58.5)    | (5.4)   | 51.7   | 182.6   | 0.5    | 14.2   | 0.9    |
| Machinery and equipment              | 3.5           | (29.1)    | (3.9)   | (78.4) | 461.1   | (15.3) | (6.2)  | (9.7)  |
| Transport material                   | 45.8          | (90.7)    | (91.8)  | n.a.   | 87.5    | (68.3) | (47.0) | (86.3) |
| Optical equipment, cinema and others | 124.9         | (58.5)    | (18.5)  | (61.9) | 11.1    | 22.9   | 22.6   | 25.3   |
| Other industries                     | 40.8          | (58.9)    | 9.4     | 90.5   | 207.4   | 46.1   | 31.2   | 12.5   |
| Mining sector (*)                    | 198.3         | (51.4)    | 802.1   | (9.2)  | 11.1    | (40.8) | 297.0  | 203.6  |

n.a. Not available.

(\*) Includes gold and emeralds.

Source: DANE and Banco de la República.

and equipment and chemical products decreased US\$465 million as a consequence of the fall in sales to Venezuela and Ecuador (Table 5).

Imports grew at an annual rate of 9.5% in 2003 due to the increase in purchases of capital goods (15.5%), especially industrial machinery and construction materials, and to lesser extent, purchases of intermediate goods (10.1%, Table 6).

#### *b. Capital account*

In 2003, the capital and financial account recorded net income of US\$1.38 billion, an increase of US\$146 million from the year before. The inflow of funds in 2003 is explained by long-term capital flows which totaled US\$2.02 billion, offsetting outflows of short-term capital which totaled US\$632 million (Table 3).

Net foreign direct investment totaled US\$1.62 billion, with an annual decrease of US\$420 million from 2002, mainly explained by the decline in investments into the oil and agriculture sectors. The funds received from direct investment went mostly into the mining, construction, manufacturing, transport and communications sectors.

Discounting net direct investment, long-term financing for the public and private sectors was US\$1.27 billion and -US\$768 million, respectively. Short-term capital flows were US\$632 million in contrast to the record inflow of US\$2.72 billion in 2002. Outflows in 2003 relate to the investments made abroad for US\$1.06 billion by public-sector bodies (US\$582 million) and private-sector agents (US\$473 million). Net inflows of short-term liabilities were US\$388 million, related mainly to non-financial companies in the private sector, which were offset by payments of short-term loans by financial

TABLE 6  
IMPORTS FOB, BY ECONOMIC DESTINATION (PR)  
(MILLIONS OF DOLLARS)

|                           | January-December |          | Variation |        |
|---------------------------|------------------|----------|-----------|--------|
|                           | 2002             | 2003     | Absolut   | %      |
| <b>Consumer goods</b>     | 2,521.0          | 2,499.0  | (22.0)    | (0.9)  |
| Durables                  | 1,409.1          | 1,314.2  | (94.9)    | (6.7)  |
| Non-durables              | 1,111.8          | 1,184.8  | 72.9      | 6.6    |
| <b>Intermediate goods</b> | 5,373.1          | 5,916.4  | 543.3     | 10.1   |
| Fuel and lubricants (*)   | 174.1            | 222.2    | 48.1      | 27.7   |
| For agriculture           | 438.1            | 496.3    | 58.2      | 13.3   |
| For industry              | 4,761.0          | 5,197.9  | 436.9     | 9.2    |
| <b>Capital goods</b>      | 3,971.9          | 4,589.2  | 617.3     | 15.5   |
| Construction materials    | 164.0            | 197.9    | 33.9      | 20.6   |
| For agriculture           | 42.5             | 50.7     | 8.1       | 19.1   |
| For industry              | 2,293.6          | 2,787.8  | 494.2     | 21.5   |
| Transport equipment       | 1,471.7          | 1,552.8  | 81.0      | 5.5    |
| <b>Unclassified goods</b> | 33.2             | 25.2     | (8.0)     | (24.2) |
| <b>Total imports</b>      | 11,899.2         | 13,029.7 | 1,130.6   | 9.5    |

(pr) Preliminary .

(\*) Includes oil and coal products.

Source: National Tax and Customs Office (DEAN) and Dane.



institutions, and by non-financial bodies in the public sector (US\$205 million).

### *c. Change in international reserves*

As a result of movements of goods and services, and capital in 2003, net international reserves ran down US\$186 million, not including revaluations, leaving a balance of US\$10.92 billion, equivalent to 9.7 months of imports of goods, 6.4 months of imports of goods and services and 1.1 times the value of the amortizations of public and private debt during the next year.

## **2. Balance-of-payments outlook for 2004**

According to the current balance-of-payments projection, in 2004 the deficit on current account will be US\$2.34 billion (2.6% of GDP), to be financed by expected capital income of US\$2.85 billion (3.2% of GDP), originating from net inflows of long- and short-term capital of US\$1.54 billion and US\$1.30 billion, respectively (Table 3).

In relation to the current account estimate, exports are estimated to grow 6.54% in the year not including special trade operations; specifically, external sales in dollars of goods, such as ferronickel (35.0%), gold (16.2%), coal (12.1%), non-traditional products (8.2%) and coffee (8.1%). Exports of products such as oil and products could increase 2.9%. Goods imports grow an estimated 11.9% in response to a more buoyant economy.

The projection for the capital and financial account includes long-term and short-term inflows of US\$1.54 billion and US\$1.30 billion, respectively.

Net foreign direct investment of US\$1.29 billion is forecast, and net long-term external borrowing by the public sector totals US\$1.24 billion. On the other side, the projection includes net payments of long-term debt by the private sector of US\$853 million. The trend in short-term flows is largely explained by possible liquidation of foreign investments valued at around US\$788 million by the public sector, basically attributable to the Central Government and the Oil Savings and Stabilization Fund (FAEP).

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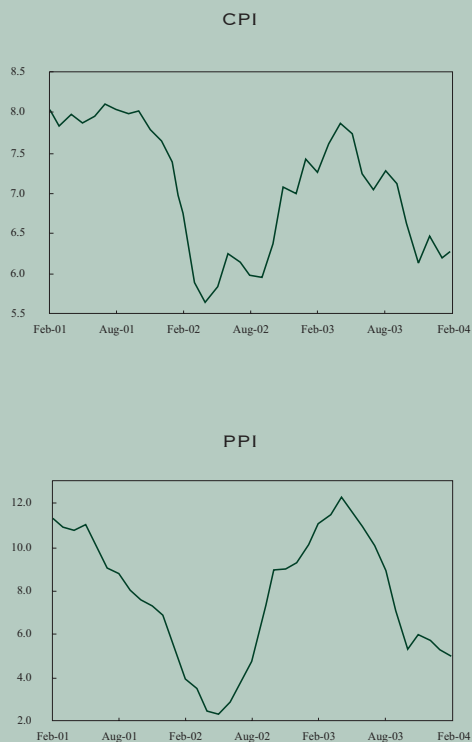
## **C. INFLATION**

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In 2003 consumer price inflation gained 6.49%, 49 bp above the upper limit of the meta-range fixed between 5% and 6% (Figure 3). The items that exerted most pressure on inflation were related to controlled prices and transitory supply shocks; especially, the 14.5% increase in public service charges and the 21.8% rise in fuel prices. In December food inflation surged due to climatic factors and the transport strike in the early weeks of December 2003.

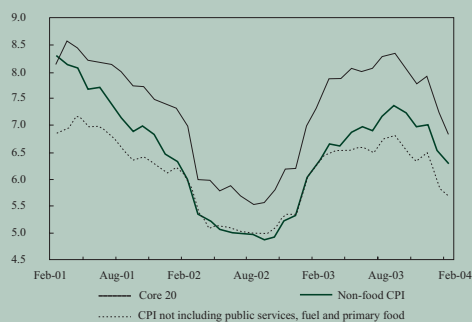
Inflation of other items in the basket (excluding primary food, public services and fuel) displayed different trends. First, prices of goods considered tradable, and therefore affected by the trend in the exchange rate, grew above the target (7.3%). This trend reflects the lagged impact on prices of movements in the exchange rate, which depreciated 14.7% on average between 2002 and 2003. The stabilization and later reduction of the exchange rate (which to date has not exceeded 3.5% on average led to the start of a decline in tradables inflation. Second, inflation of CPI items considered non-tradable (excluding primary food,

**FIGURE 3**  
ANNUAL INFLATION OF CPI AND PPI  
(PERCENTAGE)



Source: DANE and Banco de la República.

**FIGURE 4**  
CORE INFLATION  
(PERCENTAGE)



Source: Dane, Bank's own calculations

public services and fuel), was below the target (4.9% in December).

The main factors that influenced inflation in 2003 include:

- v The exchange rate, which had generated severe inflationary pressures since mid-2002, began to have a favorable effect. After the strong appreciation between the third quarter of 2002 and the first of 2003, the rate stabilized to some extent before appreciating over 7.0% in the last quarter of 2003 and early 2004.
- v Spare capacity has been declining from historically high levels at the beginning of the decade, and at a faster rate in the last two quarters.
- v A set of supply shocks (VAT and food inflation shocks) and adjustments in the prices of regulated goods and services.

The data available on inflation for January 2004 shows that these trends are strengthening. Consumer inflation was lower than in 2003, and annual inflation continued to decline, dropping to 6.2% (Figure 3). Core inflation also fell steadily, as shown by the trend in its indicators (Figure 4). Tradable inflation continued to decrease, while non-tradable increased (Figure 5). Given the favorable price trends which suggest that the 5% to 6% target fixed for 2004 will be met, and the effects of the exchange appreciation on the forecasts for 2005, the Board cut the intervention interest rate by 25 bp in February and March this year.

In February core inflation continued to fall, even though the general CPI was higher than one year

before, which is explained by the upward trend in food and transport (Table 7). The Board cut intervention rates by a further 25 bp on March 19.

The Board expects to achieve the target inflation range fixed at 5% to 6% at the end of 2004. The projection models suggest that, assuming that current external conditions are unchanged, inflation at the end of 2004 would be within the range. An intensification of exchange appreciation could reduce it even more but this is not desirable since it increases the risk of a large inflationary correction in the future. In fact, the balance-of-payments projections for the next few years show that the current exchange appreciation is temporary, and that from 2005 the pressure for devaluation will intensify as oil production falls and the government reduces its external financing (as a result of the deficit-reduction strategy). In this context, and since there is even the possibility that capital flows could reverse this year, the Board announced that it would intervene in the exchange market.

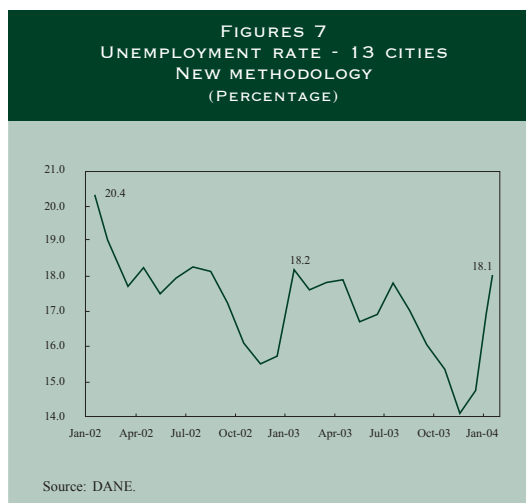
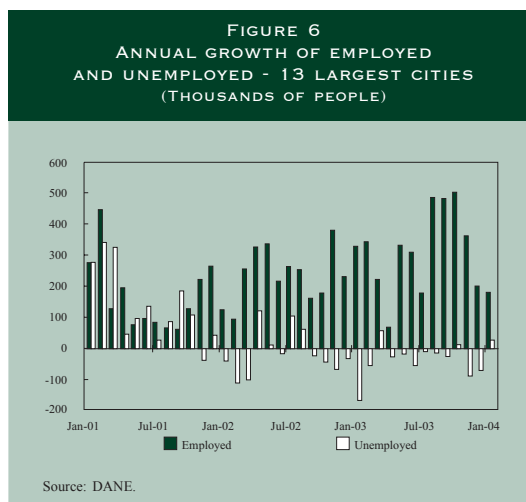
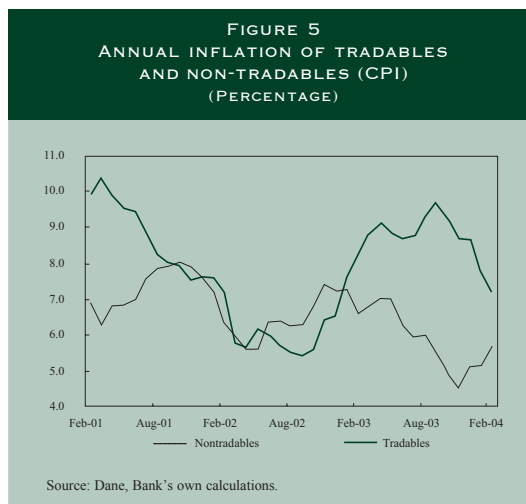
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#### D. EMPLOYMENT SITUATION

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As a result of the stronger growth of the economy, the employment situation in Colombia improved substantially in 2003. The number of employed rose systematically during the year, and in some months jobs increased by over 400,000 (Figure 6). This data coincides with social security registrations, indicating that most new employees were in jobs that granted these benefits.

In December 2003 the unemployment rate of the 13 largest cities declined three percentage points from 2004. The data for January 2004 maintains this improvement, down one tenth from January



**TABLE 7**  
**INFLATION INDICATORS TO FEBRUARY**  
(PERCENTAGE CHANGE)

|   | Monthly |      |       | Year to date |       |       | Annual |      |       |
|---|---------|------|-------|--------------|-------|-------|--------|------|-------|
|   | 2002    | 2003 | 2004  | 2002         | 2003  | 2004  | 2002   | 2003 | 2004  |
| <b>I. CPI</b>   | 1.3     | 1.1  | 1.2   | 2.1          | 2.3   | 2.1   | 6.7    | 7.2  | 6.3   |
| Food  | 1.9     | 0.7  | 1.5   | 3.4          | 1.9   | 2.9   | 8.4    | 9.4  | 6.3   |
| Housing   | 0.2     | 1.0  | 0.7   | 0.4          | 1.5   | 1.2   | 3.9    | 5.1  | 6.0   |
| Clothing  | (0.1)   | 0.1  | 0.2   | 0.1          | 0.4   | 0.4   | 2.4    | 1.0  | 1.5   |
| Health  | 1.0     | 1.3  | 1.1   | 1.6          | 2.1   | 1.8   | 9.9    | 9.8  | 8.3   |
| Education   | 3.9     | 2.7  | 3.3   | 4.0          | 2.7   | 3.3   | 9.6    | 5.2  | 5.5   |
| Culture and leisure   | 1.4     | 0.5  | 0.7   | 3.4          | 2.4   | 3.2   | n.a.   | 4.3  | 6.0   |
| Transport   | 1.4     | 1.8  | 1.1   | 2.1          | 4.8   | 2.1   | 8.1    | 8.7  | 8.8   |
| Sundry expenditure/spending                                 | 1.5     | 1.6  | 1.5   | 2.6          | 2.8   | 2.3   | 7.0    | 9.2  | 5.3   |
| <b>II. Core inflation</b> <sup>1/</sup>                     | 1.0     | 1.3  | 1.1   | 1.5          | 2.5   | 1.8   | 6.3    | 6.7  | 6.2   |
| Non-food CPI <sup>2/</sup>                                  | 1.0     | 1.3  | 1.1   | 1.5          | 2.5   | 1.8   | 6.0    | 6.3  | 6.3   |
| Core <sup>3/</sup>  |         |      |       |              |       |       | 7.0    | 7.4  | 6.8   |
| CPI not including primary food,<br>fuel and public services |         |      |       |              |       |       | 6.0    | 6.3  | 5.6   |
| <b>III. PPI</b>   | 0.3     | 1.2  | 1.0   | 0.7          | 2.4   | 1.7   | 4.0    | 11.1 | 5.0   |
| By economic use or destination                              |         |      |       |              |       |       |        |      |       |
| Intermediate consumption                                    | 0.1     | 1.9  | 0.7   | 0.5          | 3.6   | 1.5   | 3.3    | 13.3 | 4.7   |
| Final consumption   | 0.5     | 0.5  | 1.3   | 1.2          | 0.4   | 2.1   | 4.9    | 6.5  | 6.0   |
| Capital goods   | 0.3     | 0.8  | 0.4   | (0.2)        | 3.1   | (0.1) | 3.0    | 19.4 | (0.2) |
| Construction materials                                      | 0.5     | 1.8  | 1.2   | 1.2          | 4.0   | 2.9   | 4.7    | 10.8 | 8.6   |
| By origin   |         |      |       |              |       |       |        |      |       |
| Produced and consumed                                       | 0.3     | 1.2  | 1.2   | 1.1          | 1.9   | 2.3   | 4.7    | 7.9  | 6.7   |
| Imported  | 0.2     | 1.4  | 0.3   | (0.4)        | 3.9   | (0.3) | 1.7    | 21.0 | 0.1   |
| Exported <sup>4/</sup>                                      | 0.7     | 3.4  | (0.3) | 0.3          | 10.2  | 0.9   | (9.4)  | 41.2 | (6.4) |
| By industrial origin (UIIC)                                 |         |      |       |              |       |       |        |      |       |
| Agriculture, forestry and fisheries                         | (0.3)   | 0.5  | 2.3   | 1.4          | (0.5) | 3.4   | 2.7    | 7.1  | 6.6   |
| Mining  | 3.7     | 5.1  | 1.7   | 2.5          | 14.8  | 3.8   | (7.4)  | 49.4 | (1.3) |
| Manufacturing industry                                      | 0.4     | 1.3  | 0.6   | 0.5          | 2.7   | 1.2   | 4.7    | 11.0 | 4.8   |

n.a. Not available.

<sup>1/</sup> Average of the three core inflation indicators. Bank's own calculations.

<sup>2/</sup> Excludes from total CPI, all items in the food group.

<sup>3/</sup> Excludes from the CPI, 20% of the weighting of the items that recorded the highest price volatility between January 1990 and April 1999.

<sup>4/</sup> Total PPI does not include exported goods, which are calculated with the weighted sum of goods produced and consumed and imported.

Source: Banco de la República, SGEE. Tabulations from PPI, CPI and DANE.

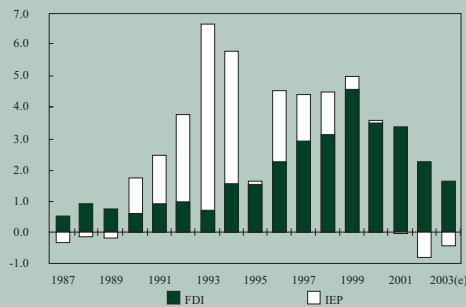
2003 (Figure 7). New data is needed to see if last year's improvement continues this year. In any event, it is worth recalling that a steady decline in

unemployment depends not only on economic reactivation but on progress in eliminating inflexible conditions in the labor market.

**Box 1**  
CAN THE EXPERIENCE OF THE CAPITAL FLOWS OF THE 1990S BE REPEATED?

Latin America has made frequent use of the financing from international capital markets over the last 15 years. Capital inflows in this period totaled US\$764.2 billion and the annual flow is equivalent to 3.6% of regional GDP. In Colombia capital inflows totaled US\$28.5 billion and averaged 2.6% of GDP (Figure R1.1).

**FIGURE R1.1**  
**FOREIGN DIRECT INVESTMENT (FDI)**  
**AND PORTFOLIO INVESTMENT IN LATIN AMERICA (\*)**  
**(PERCENTAGE OF GDP)**

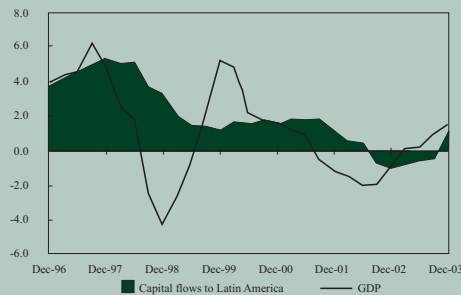


(\*) Includes Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela.  
(e) Estimated.  
Source: IMF

Foreign capital flows and deepening financial integration have had positive effects on the receiving economies and on the world economy. Financial integration promotes growth because it takes investment to countries where capital receives a higher return. But the arrival of large capital flows is not always entirely beneficial for the receiving economies; in adverse conditions, it can put pressure on the exchange rate, produce a rapid increase in monetary aggregates, and lead to higher risks for the financial sector. These ambivalent effects can also affect the performance of the receiving economies. There is evidence of a positive relation between the cycles of capital flows and the cycles of the economies of Latin American countries in general and Colombia in particular (Figure R1.2 and R1.3). Moreover, capital flows tend to be volatile and concentrated in a few countries, and to be followed by sudden massive outflows of funds. After the crises of Mexico (1994-1995) and Russia (1998), for example, the trends in external financing to Latin America abruptly reversed. The macroeconomic effects and the volatility of these flows are then a serious challenge for economic policymakers.

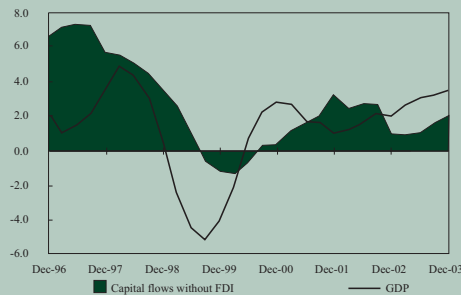
In recent months expectations have grown in Latin America about a potential increase in inflows and its possible effect on the economies. Will there be a surge in flows as high as in 1990s? Will the flows be concentrated in short-term capital? Will they have an adverse macroeconomic effect?

**FIGURE R1.2**  
**CAPITAL FLOWS WITHOUT FDI 1/**  
**AND LATIN AMERICAN GDP 2/**  
**(PERCENTAGE)**



1/ Capital flows/GDP (moving averages for last four quarters).  
 2/ Percentage of growth rate (moving averages for last four quarters).  
 Source: Cepal.

**FIGURE R1.3**  
**CAPITAL FLOWS WITHOUT FDI 1/**  
**AND COLOMBIAN GDP 2/**  
**(PERCENTAGE)**



1/ Capital flows/GDP (moving averages for last four quarters).  
 2/ Percentage of growth rate (moving averages for last four quarters).  
 Source: Cepal.

### The 1990s experience

After the crisis of the 1980s, a mass of private capital moved into the developing countries. Latin America and Colombia were no exceptions. Experiences were very varied. The size of the flow of capital into the region reached 6.6% of GDP annually in 1993, and in Colombia 5.6% of GDP annually in 1997 (Figure R1.1).

In the 1990s, these capital flows into Latin America were mostly concentrated in foreign direct investment and portfolio, in sharp contrast to the 1970s and 1980s when loans from commercial banks were the main origin of the funds. Most of this capital was directed into the private sector, while in previous decades, the funds were used to finance public sector borrowing. In the 1990s, private capital to finance governments almost disappeared from the scene. Portfolio flows burgeoned during the decade from almost zero to the largest source of external financing for these economies. In the last year of the decade, the wave came to an end. The portfolio flows reversed into capital outflows and foreign direct investment fell from the peaks of 1999.

### The reasons for the flows in the 1990s

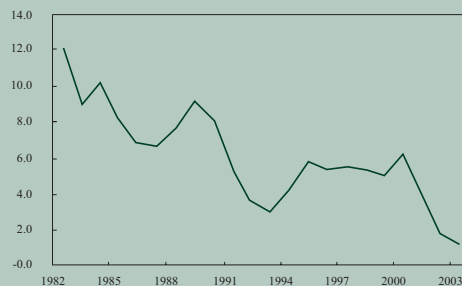
Foreign investors generally respond to higher profitability and the possibility of diversifying risk. Despite differences between countries, these investors responded to a combination of factors both internal and external to the receiving economies.

Internally, the factors that "attracted" capital included the productive dynamism of the early 1990s, the structural reforms and the privatization processes of State assets. The payment capacity of Latin American economies improved thanks to higher growth and the restructuring of the external

debt. The processes of structural reform and reduction of inflation, which began in the late 1980s and early 1990s, improved confidence in the economies and opened the door to foreign capital in sectors where entry had been restricted. Another internal factor that attracted capital inflows in the 1990s was the development of the financial structure of capital importing countries. The appearance, for the first time, of a supply of highly rated Latin American assets gave institutional investors, such as pension funds and insurance companies on the lookout for alternatives, the opportunity to include emerging country paper in their portfolios.

Among the external factors that “pushed” capital out of the industrialized countries, the natural cycle of the industrialized economies could be the main factor. The fall in interest rates in these countries’ markets “pushed” capital into emerging countries which were offering higher returns (Figure R1.4). At that time, the slowdown in the economies of the United States, Japan and the European countries made investments in the local markets of emerging countries more attractive. The low interest rates also improved the payment capacity of emerging countries and reduced risk of non-payment.

FIGURE R1.4  
EXTERNAL INTEREST RATE (\*)  
(PERCENTAGE)



(\*) US Federal Reserve rate  
Source: Datastream.

### The effects of foreign capital inflows

Aside from the positive effects of the addition of productive capital to the economy, if the capital inflows are massive and sustained, and the economy is operating around full employment, it is possible to create excessive aggregate demand, which can be reflected in inflationary pressure, appreciation of the exchange rate and expansion of the current-account deficit. However, effects on inflation and the real exchange rate depend very much on the economic situation, the type of investment that the country receives and the exchange rate regime.

In the 1990s the current account of all countries deteriorated during the period in which capital flows arrived, while investment and consumption as a proportion of GDP increased substantially. Together with the increase in aggregate demand and the steady inflow of capital, the real exchange

rate appreciated, in many cases consistent with the exchange schemes of that time, which gave priority to stable nominal exchange rates as a strategy for economic stabilization. The appreciation in turn led to a shift of consumption into imported goods, now more available following trade liberalization.

The effects of the massive flow of capital obliged economies such as Colombia and Chile to impose entry restrictions. The most used restriction was a “reserve” requirement on these capital flows based on the term of the external loan. The ultimate effects of these controls on the composition of the flows and, in general, as a tool of macroeconomic policy have been the subject of several studies, without producing any conclusive evidence.

### The current situation

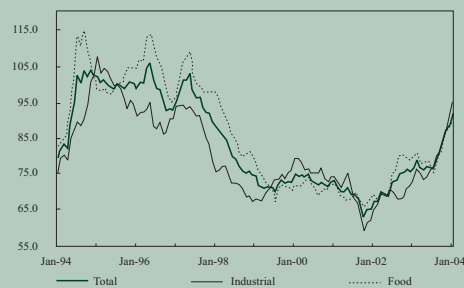
A look at the situation in the 1990s reveals considerable differences from the present. First, the depth of the recessive phase of the economic cycle in the industrialized countries is now so acute as in the late 1980s and early 1990s. In terms of the receiving economies, although growth has recently recovered, the process has not been significant and the economies are far from overheating (Figure R1.5). The rise in commodity prices after the steady fall since the Asian crisis of 1997 could be contributing to the improved performance of Latin American economies (Figure R1.6). The difference between the trend in the industrialized countries and the Latin American is, then, less pronounced than in the 1990s, which means better conditions for receiving capital. The debt burden during the previous wave and the service on external investments are not yet complete, so the capacity to repay new investment is probably less than in the early 1990s, which is a factor that will be considered by external investors. The loss of the investment grade assigned by the international risk rating agencies to certain countries, including Colombia, will curb demand from institutional investors for debt instruments issued by these countries.

FIGURE R1.5  
GROWTH OF GDP, LATIN AMERICA  
AND THE CARIBBEAN  
(PERCENTAGE)



**Note:** The 2003 figures are estimated and the 2004 figures are projected.  
Source: Cepal, preliminary balances of the economies of Latin America and the Caribbean, 2003.

GRÁFICO FIGURE R1.6  
MONTHLY COMMODITY PRICE INDEX  
(1995 = 100)



Source: The Economist.



More important still, some of the changes in the Latin American economies, which attracted external capital in the 1980s, have now been assimilated by foreign investors. The processes of opening to trade and capital flows have been consolidated, so the contribution of the reforms and access to imported consumption is no longer a determining factor in attracting capital.

Another significant difference from the 1990s is the prevalence of floating exchange rates, with the advantage in terms of discouraging inflows of speculative capital. In fact, the increased volatility of the exchange rate acts as a powerful disincentive to speculative investment which made a considerable contribution to total capital inflows in the 1990s.

Also, in the case of Colombia, the increase in oil reserves since the 1980s has strengthened the economy's payment capacity and increased expectations of revaluation, encouraging borrowing flows. At present, the outlook for oil is that the country will lose its self-sufficiency in crude in a horizon of a few years.

Finally, the experience of the 1990s was a lesson for the receiving economies lessons in the importance of careful intervention in the exchange market to help economies to assimilate capital flows without making them more vulnerable when they go into reverse. It also showed the need to strengthen fiscal discipline and improve the receiving economies' capacity to deal with capital flows and use them to improve their productive capacity.

In synthesis, a new wave of capital flows is likely given the improvement in the domestic environment and the conditions of profitability in Latin America compared with the industrialized countries in general and the United States in particular. However, if this phenomenon does occur, it will probably be weaker than in the early 1990s and its effect will be less disturbing. The existence of a floating exchange scheme is a strong disincentive to speculative capital.

In terms of the composition of the capital flows, other types of investment are certain to arrive. The major privatizations that attracted capital in the 1990s will not necessarily be repeated so the flows will be debt and portfolio. Also, the performance of governments as issuers will be determinant in attracting capital.

### III

## MACROECONOMIC POLICY

The decisions taken by the Colombian monetary authorities following its inflation targeting strategy are aimed at achieving price stability compatible with sustainable economic growth in the long term. The inflation targeting strategy was adopted in 1999. In that year a free float exchange regime was established in which the authorities intervened in the exchange market under clear and transparent rules to moderate the negative effects of excessive fluctuations of the exchange rate.

The legal bases of the functions of Banco de la República are contained in the Constitution of 1991 and Law 31 of 1992. These establish that the primary objective of the Board is to control inflation, in coordination with general macroeconomic policy. The legal mandate refers to what is known in the economic literature as “flexible inflation targeting.” The primary objective of monetary policy is to achieve and maintain a low inflation rate in the form of a quantitative target, while pursuing the stabilization of growth of aggregate product around its long-term trend. The objectives of the central bank are to combine the price stability target with maximum sustainable growth of product and employment.

The objectives of Banco de la República were based on the dominant interpretation of the economic cycle and on the way almost all economists interpret the short- and long-term relation between growth of product and inflation. In the short and medium term, the observed output closely replicates the trend in aggregate demand, influenced by (fiscal and monetary) macroeconomic policy and external shocks, such as unexpected changes in the terms of trade and capital flows. In turn, potential output is defined as the (hypothetical) level of product that would result if all prices and wages in the economy were flexible. Its determinants are factors of supply, for example growth of the workforce and its quality of education, increase in physical capital and the general efficiency of the allocation and management of productive resources. So, when observed output is greater than potential output, inflation tends to increase, and vice versa.

Central banks influence the behavior of aggregate demand by modifying interest rates and the primary liquidity in the economy. When, for example, the observed output is below its potential and expected inflation below target, the banks cut their intervention rates and expand the liquidity

in the economy, which simulates real demand and productive activity while expected inflation approaches the established target. In contrast, when the economy operates above its potential capacity, central banks tighten monetary policy to cut expenditure and bring inflation down to levels compatible with the target; otherwise, inflationary expectations and inflation itself grow and unsustainable macroeconomic imbalances are created (current-account deficit, bubbles in asset prices) which lead to a collapse of growth of product and employment. So, central banks have a fundamental role to play in controlling inflation, and their conduct of monetary policy contributes to moderating (or intensifying) economic cycles. Central banks cannot (and should not) adopt an indefinitely an easy monetary policy designed to stimulate growth of product and employment in the long run.

If the monetary authority wishes to reduce the inflation rate, it should not necessarily reduce product below its potential level. To the extent that the inflation targets and central bank policy are credible, inflation can be reduced without slowing down growth of aggregate demand and product. In this situation, economic agents adjust the prices of their products in line with the announced inflation targets. In this respect, credibility is a valuable asset for monetary policy and results in efficient price stabilization in terms of the trend in economic activity. For the same reason, a central bank's credibility facilitates a policy of product stabilization, as long as expansionary actions do not intensify inflationary expectations.

Even so, it is important to take into account that in an open or semi-open economy such as the Colombian, the capacity of monetary policy to affect aggregate demand and moderate the

economic cycle has limitations. For example, with an exchange float, excessive monetary expansion speeds up devaluation, which increases the level and expectations of inflation. Rising expectations of devaluation and inflation pressure interest rates upward and contract aggregate expenditure; so, excessive monetary expansion can end in higher inflation and lower growth of product and employment, without any capacity for reducing the real interest rate in the medium or long terms.

Previous reports have insisted that, in a context of negative external shocks such as those that the country has faced in recent years, monetary policy has not had the force to counteract their unfavorable impact on economic activity because of the obstruction of the domestic credit channel. Fear of borrowing on the part of households and companies, and fear of lending on the part of the financial system meant that the impact of low interest rates was not reflected in higher growth of the Colombian economy.

The situation finally began to be overcome in 2003, and the trend has consolidated in 2004 to date. Thanks to the recovery of confidence and the existence of a strong financial sector, credit began to expand and monetary policy became more effective in promoting growth. Supported by the external situation, this policy was continued based on maintenance of low interest rates. After several years of record low rates, the risk of non-payment declined and funds were released to refinance the debt, which has been a decisive factor in restoring confidence in the country's economy.

Due to the positive external shock, the real exchange rate stabilized in the middle of 2003 and

tended to appreciate at year-end and early this year, but is still at historically high levels following the devaluation between late 2002 and early 2003. The average nominal devaluation in 2003 was 14.7%, while the real figure was 15.2%, also due to the trend in other currencies and the fall in inflation (Box 2).

This chapter contains a description of the key macroeconomic policy measures adopted in 2003 and in 2004 to date, and explains their scope and outcomes. The first part is an outline of the monetary policy adopted by the Board. The second part describes the trend in the exchange rate and the Board's actions to moderate the impact of market events on this variable. The chapter ends with the fiscal area, which, although not the Board's direct responsibility, is closely interrelated with monetary, and exchange policy. This section shows that in 2003, the country met the targets agreed with the IMF met and is likely to repeat this in 2004. However, the imbalance of public finances continues and, according to the latest projections, could deteriorate further in the near future if the National Government and Congress do not make structural reforms to rationalize the tax structure, and avert an exponential increase in pension payments in the next few years, among others.

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#### A. MONETARY POLICY

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Last year began with strong devaluation pressures which passed through to the country's main inflation indicators. In this situation, the monetary authorities raised twice (January 17 and April 20) and the Bank's intervention rates and announced in February their intention to intervene in the

exchange market through the sale of reserve options to rundown reserves up to US\$1.00 billion. The objectives of these actions were, first, to correct the trend in the exchange rate which threatened to create expectations of higher devaluation and inflation; and second, to contain the excessive increase in liquidity in pesos, reflected in real negative intervention and interbank interest rates.

These pressures began to recede after April, and already toward mid-year a downward trend was evident in the devaluation rate and the improvement in agents' expectations, after inflation had begun to ease. In the rest of the year, the Bank maintained its monetary posture and, despite uncertainty about the fiscal situation, the exchange rate was relatively stable until the end of the year when capital inflows began to speed up, a trend that has continued in 2004 to date.

In response to the reversal of the exchange situation, the Bank bought foreign exchange in operations totaling US\$500 million in December 2003 and January 2004. These purchases were made to moderate exchange movements because of fears that excessive appreciation would increase the risk of a sharp correction of the rate in the future, with its effects on economic activity and inflation. This was also possible thanks to low external interest rates, the steady downward trend in inflation and, although the 2003 target was not met, a monetary policy capable of maintaining a comfortable position and supporting the rapid growth of the economy.

On February 19, 2004, since the inflation indicators showed a clear downward trend associated with gradual revaluation of the currency, the Board cut its intervention rates by

25 bp, followed by an additional 25 bp on March 19 for similar reasons.

## 1. Interest rates

Between January 17 and April 28, 2003, the Board raised all intervention rates by 200 bp to regulate the primary liquidity in the economy. This liquidity is supplied through: i) auctions for which the Bank fixes the quotas and minimum and maximum closing rates for expansion and contraction operations, respectively; and ii) access to the windows, used to manage intermediaries liquidity surpluses and shortfalls, at Lombard rates. Between April 29, 2003 and February 20, 2004 the Bank maintained a 7.25% minimum rate for expansion auctions; 11.0% for the expansion window; 6.25% maximum for the contraction auction, and 5.25% for the contraction window (Table 8).

After the recent cuts, the rates were at the following levels: minimum for expansion auction, 6.75%; Lombard expansion, 10.50%; maximum for contraction auction 5.75%; and Lombard contraction, 4.75% (Table 8).

In 2003 the average demand for one-day expansion repos was \$1.14 billion pesos, granted at 99.5% through the auction mechanism with 63.4% utilization of available quotas. As in the previous year, agents applied sporadically for expansion operations by window and overnight in small amounts. The utilization of available quotas in the contraction auction was 26% (Table 9).

As expected, the change in the Bank's intervention rates passed through entirely to the interbank rate, which conserves the stability achieved by the policy of reducing the dispersion applied from late 1999 to 2002 (Figure 8). As shown in Figure 9, although the interbank rate became positive in real terms

CUADRO TABLE 8  
BANCO DE LA REPÚBLICA INTERVENTION RATES AND INTERBANK RATE  
(PERCENTAGE)

| Effective dates |           | Contraction minimum (Lombard) | Maximum for contraction auction | Minimum for expansion auction | Maximum expansion (Lombard) | Interbank rate (end of) |
|-----------------|-----------|-------------------------------|---------------------------------|-------------------------------|-----------------------------|-------------------------|
| From            | To        |                               |                                 |                               |                             |                         |
| Dec-17-01       | Jan-18-02 | 6.25                          | 7.50                            | 8.50                          | 12.25                       | 8.21                    |
| Jan-21-02       | Mar-15-02 | 6.00                          | 7.00                            | 8.00                          | 11.75                       | 7.78                    |
| Mar-18-02       | Apr-12-02 | 5.25                          | 6.25                            | 7.25                          | 11.00                       | 7.25                    |
| Apr-15-02       | May-17-02 | 4.25                          | 5.25                            | 6.25                          | 10.00                       | 6.18                    |
| May-20-02       | Jun-14-02 | 3.75                          | 4.75                            | 5.75                          | 9.50                        | 5.65                    |
| Jun-17-02       | Jan-17-03 | 3.25                          | 4.25                            | 5.25                          | 9.00                        | 5.13                    |
| Jan-20-03       | Apr-28-03 | 4.25                          | 5.25                            | 6.25                          | 10.00                       | 6.18                    |
| Apr-29-03       | Feb-20-04 | 5.25                          | 6.25                            | 7.25                          | 11.00                       | 7.32                    |
| Feb-23-04       | Mar-19-04 | 5.00                          | 6.00                            | 7.00                          | 10.75                       | 7.18                    |
| Mar-23-04       |           | 4.75                          | 5.75                            | 6.75                          | 10.50                       | 6.95 (*)                |

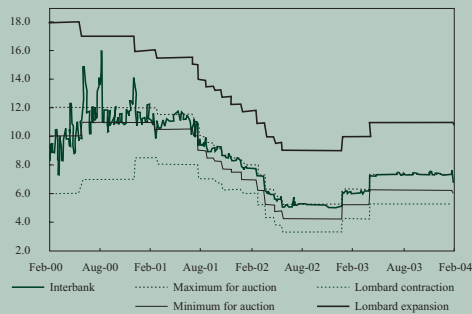
(\*) Rate March 23.  
Source: Banco de la República.

**TABLE 9**  
**ONE-DAY EXPANSION AND CONTRACTION OPERATIONS (\*)**  
 (BILLIONS OF PESOS)

| Period      |      | By auction |         |       |             |       |       | By window |             | Overnight |
|-------------|------|------------|---------|-------|-------------|-------|-------|-----------|-------------|-----------|
|             |      | Expansion  |         |       | Contraction |       |       | Expansion | Contraction |           |
|             |      | Quota      | Use     | Use % | Quota       | Use   | Use % |           |             |           |
| <b>2002</b> | Jan. | 550.0      | 280.4   | 51.0  | 1,292.9     | 261.7 | 20.2  | 10.8      | 63.6        | 15.6      |
|             | Feb. | 890.0      | 428.6   | 48.2  | 1,082.5     | 261.1 | 24.1  | 16.9      | 31.1        | 14.2      |
|             | Mar. | 1,045.6    | 648.3   | 62.0  | 544.4       | 138.6 | 25.5  | 30.1      | 16.7        | 14.9      |
|             | Apr. | 725.0      | 356.6   | 49.2  | 1,154.5     | 764.7 | 66.2  | 14.3      | 75.1        | 15.7      |
|             | May. | 776.2      | 370.2   | 47.7  | 823.8       | 545.4 | 66.2  | 9.1       | 39.1        | 14.1      |
|             | Jun. | 800.0      | 575.8   | 72.0  | 725.0       | 307.2 | 42.4  | 15.4      | 25.9        | 12.3      |
|             | Jul. | 990.9      | 817.9   | 82.5  | 852.3       | 199.6 | 23.4  | 64.1      | 22.5        | 8.6       |
|             | Aug. | 1,325.0    | 1,087.3 | 82.1  | 680.0       | 217.9 | 32.0  | 49.0      | 12.1        | 20.1      |
|             | Sep. | 1,040.5    | 676.3   | 65.0  | 902.4       | 569.0 | 63.1  | 11.5      | 32.4        | 11.4      |
|             | Oct. | 1,529.5    | 1,082.5 | 70.8  | 620.5       | 420.0 | 67.7  | 17.1      | 36.0        | 10.4      |
|             | Nov. | 1,105.3    | 490.3   | 44.4  | 663.2       | 480.9 | 72.5  | 11.4      | 104.2       | 13.5      |
|             | Dec. | 1,940.5    | 637.4   | 32.8  | 577.5       | 220.2 | 38.1  | 21.6      | 28.6        | 16.9      |
| <b>2003</b> | Jan. | 897.6      | 434.0   | 48.3  | 559.5       | 112.9 | 20.2  | 24.0      | 55.1        | 14.5      |
|             | Feb. | 855.0      | 486.0   | 56.8  | 792.5       | 337.3 | 42.6  | 7.5       | 71.5        | 15.9      |
|             | Mar. | 1,017.5    | 604.6   | 59.4  | 732.5       | 299.7 | 40.9  | 9.0       | 41.5        | 11.2      |
|             | Apr. | 1,572.5    | 939.5   | 59.7  | 520.0       | 110.4 | 21.2  | 12.8      | 25.1        | 12.0      |
|             | May. | 1,719.0    | 1,023.3 | 59.5  | 816.7       | 158.6 | 19.4  | 5.9       | 25.5        | 16.4      |
|             | Jun. | 2,119.4    | 1,169.0 | 55.2  | 786.1       | 75.8  | 9.6   | 7.2       | 34.9        | 10.3      |
|             | Jul. | 2,189.1    | 1,398.2 | 63.9  | 852.2       | 15.4  | 1.8   | 8.8       | 26.2        | 17.2      |
|             | Aug. | 2,063.2    | 1,298.6 | 62.9  | 871.1       | 40.5  | 4.6   | 8.4       | 9.8         | 13.8      |
|             | Sep. | 2,025.0    | 1,378.5 | 68.1  | 611.4       | 184.3 | 30.2  | 5.5       | 19.6        | 24.6      |
|             | Oct. | 2,084.1    | 1,671.0 | 80.2  | 500.0       | 88.5  | 17.7  | 4.3       | 31.4        | 21.6      |
|             | Nov. | 1,925.0    | 1,456.7 | 75.7  | 677.8       | 408.9 | 60.3  | 13.7      | 43.4        | 21.0      |
|             | Dec. | 2,492.5    | 1,769.9 | 71.0  | 412.5       | 176.8 | 42.8  | 7.3       | 63.0        | 27.2      |
| <b>2004</b> | Jan. | 1,275.0    | 977.8   | 76.7  | 467.5       | 204.7 | 43.8  | 9.6       | 84.9        | 26.1      |
|             | Feb. | 1,720.0    | 1,261.8 | 73.4  | 88.3        | 44.5  | 50.4  | 6.9       | 12.7        | 20.0      |

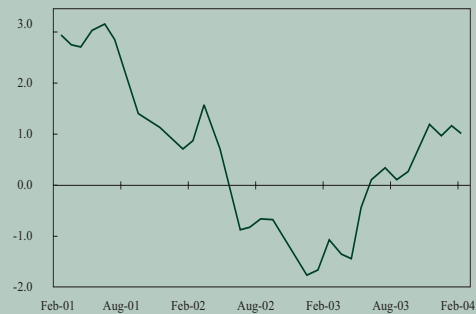
(\*) The figures relate to the monthly average of daily data.  
 Source: Banco de la República.

**FIGURE 8**  
**INTERBANK RATES AND BANCO DE LA REPÚBLICA**  
**INTERVENTION RATE**  
 (PERCENTAGE)



Source: Banking Superintendency and Banco de la República.

**FIGURE 9**  
**REAL INTERBANK RATE**  
 (PERCENTAGE OF MONTHLY AVERAGE)



Source: Banking Superintendency and Banco de la República.

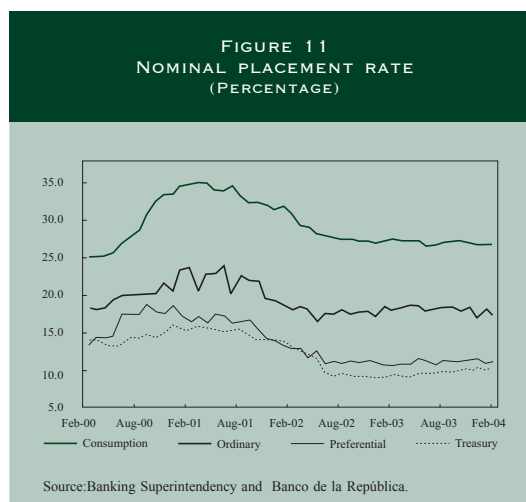
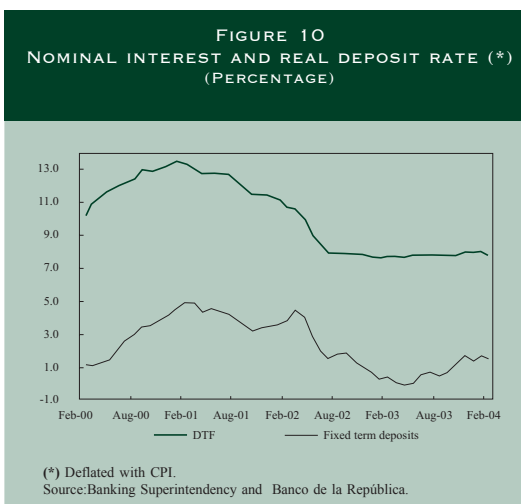
after May, it remains at low levels of around 1.0% or lower.

The deposit rate, taking the DTF (fixed-term deposits) as the year-end indicator, increased 22 bp in 2003 (against 242 bp for the interbank rate) to 7.95%. In real terms the DTF adjustment was 66 bp and its level was 1.37% (Figure 10).

Lending rates have been stable since mid-2002. In Colombia these rates are classified into four groups: consumer, ordinary, preferential and treasury (short term) according to the risk levels assessed by the financial intermediary when granting a loan<sup>4</sup>. At the end of 2003 the nominal interest rate on consumer credit averaged 26.7%, ordinary loans 16.8%, preferential 11.4% and treasury 10.2%. Compared with December 2002 the nominal rates for consumer credit and ordinary loans fell 26 bp and 32 bp, respectively. Preferential and treasury rates rose 45 bp and 126 bp, respectively (Figure 11). In real terms, rates increased for treasury (166 bp), preferential (90 bp), consumer (31 bp) and ordinary (21 bp).

Interest rates on trading of public debt paper on the secondary market trended downward throughout the year, reflecting agents' positive perception of the reduction of the non-financial public-sector deficit, compliance with the targets agreed with the IMF, stronger economic activity, falling inflation, and the favorable international

<sup>4</sup> There is another type of loan whose interest rate is indexed to inflation through the real value unit (UVR). According to Board Resolution 14 of 2000, these loans are subject to a maximum remuneration of 13.9% effective annually. A treasury loan (*credito de tesorería*) is defined as a preferential loan with a term of less than 30 days, issued to cover short-term liquidity requirements. The market tends to charge higher interest rates on consumer credit compared with other types of credit considered to have a lower risk such as preferential and treasury.



environment. For example, the TES maturing in 2012 were traded at the end of January 2004 at an average of 14.0%, compared with 15.2% the year before; while TES maturing in 2007 were traded on the same date at 12.4% average, against 14.5% the year before. Since these rates are still relatively higher than the other papers on the market, they are attractive to foreign investors in the short term. The measures recently adopted on the Bank's intervention rates also had an impact on the price of the paper, increasing values and reducing rates.

## 2. Monetary aggregates

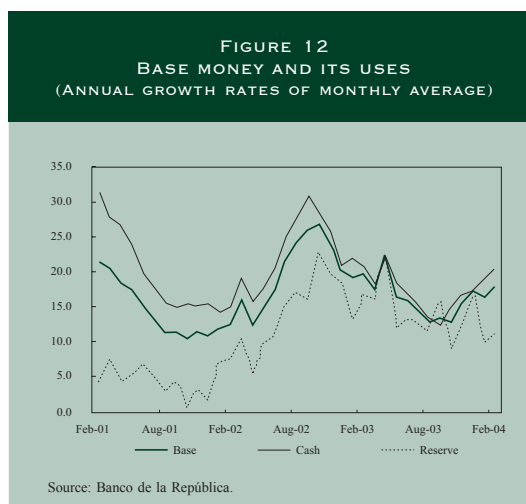
### a. Base money

Until October 2003, the growth rates of base money declined, situation that reversed in the last two months of the year. Annual growth of this aggregate (17.3%) was down three percentage points from 2002 (20.3%). Its two components, cash and reserves, grew at rates of 17.5% and 16.7%, respectively (Figure 12 and Table 10).

Although in the average for the year, the real growth rate of cash (9.6%) was lower than in 2002 (14.5%), from September 2003 the trend changed, a phenomenon that is possibly associated with the debate and passage of the adjustment of the transaction tax from three to four per mil, and with the increase in transaction costs following the rise in the charges for financial intermediary services, while the nominal interest rate has remained at low levels since July 2002<sup>5</sup>.

The demand for bank reserves was similar to the previous year; however, the composition of liabilities subject to reserve requirements shifted toward those with lower reserve requirements, with the CDs gaining share against savings and current accounts.

The analysis by source of the expansion of base money indicates that total expansion of 2,510 billion pesos in 2003 comprised 1,673 billion pesos received by the Government, and 1,492 billion pesos the financial system. The Government amount related to transfer



of profits, 830 billion pesos<sup>6</sup>, and net purchases of TES, 760 billion pesos<sup>7</sup>. Also important during the year was the contractive effect of the exercise of options for 703 billion pesos, which relate to net sales of US\$238.3 million<sup>8</sup> (Table 11).

The supply of base money at the end of the year was formed on the basis of a monetary program that included purchases of TES for 1 trillion pesos, of which 893 billion pesos were executed between September 1 and December 5, given the purchase of US\$100 million in foreign exchange by Banco de la República on December 10, 2003. Additionally, auctions were held for medium-term repos for 1.5 trillion pesos, which were fully placed. The order of the auctions was: 250 billion pesos, granted at four months on September 25; later another three auctions also for 250 billion pesos at three months, on October 9, 23

<sup>5</sup> In particular, some institutions began to charge for the service of electronic clearing. The term deposits (DTF) fell 3.5 percentage points between January 2001 and the same month of 2002, while the effective savings rate, which discounts the tax financial transactions tax, decreased from 4.0% in December 2000 to 2.5% in December 2001 and to 1.4% in 2002.

<sup>6</sup> The total transfer of profit was 1,481 billion pesos but 651 billion pesos had no monetary impact because they related to the equivalent of profits transferred in dollars (US\$220 million).

<sup>7</sup> This accumulated amount relates to the sum of total purchases less maturities of principal, because the coupons are part of the Bank's profit and loss.

<sup>8</sup> The implicit exchange rate, 2,950 pesos per dollar, which results from dividing the contraction effect (703 billion pesos) by net sales US\$283.3 million is higher than the average exchange rate for the year because the dollars sales were made at the beginning of the year when higher exchange rates predominated and purchases at the end of the year when exchange rates were at their lowest level.



and November 20; and finally 500 billion pesos were placed at three months on December 4. Similarly, the adjustment of the quota of the expansion and contraction repos to one day continued, in line with the requirements of market liquidity.

*b. Means of payment (M1)*

This aggregate followed a trend similar to base money. Its growth rate fell between September 2002 and the same month of 2003 and then increased at the end of

TABLE 10  
MONETARY AGGREGATES

|   |             | Base | Cash | Reserve | M1   | Quasi-money | M2   | PSE <sup>/1</sup> | M3   |
|---|-------------|------|------|---------|------|-------------|------|-------------------|------|
| <b>Nominal annual percentage change of monthly average of weekly data</b> |             |      |      |         |      |             |      |                   |      |
| <b>2002</b>   | Dec.        | 20.3 | 20.9 | 18.6    | 18.3 | 4.7         | 8.5  | 5.7               | 7.4  |
| <b>2003</b>   | Jan.        | 19.2 | 22.0 | 12.8    | 22.9 | 5.2         | 10.0 | 6.5               | 8.2  |
|   | Feb.        | 19.7 | 21.0 | 16.7    | 21.1 | 7.1         | 10.8 | 8.9               | 10.2 |
|   | Mar.        | 17.6 | 18.3 | 16.1    | 20.3 | 9.1         | 12.1 | 10.5              | 11.4 |
|   | Apr.        | 22.2 | 22.0 | 22.8    | 18.2 | 9.2         | 11.6 | 8.9               | 10.3 |
|   | May.        | 16.6 | 18.6 | 11.9    | 13.4 | 9.3         | 10.4 | 9.6               | 10.6 |
|   | Jun.        | 16.0 | 17.1 | 13.5    | 13.6 | 10.3        | 11.2 | 10.6              | 11.3 |
|   | Jul.        | 14.6 | 15.5 | 12.5    | 12.9 | 10.5        | 11.2 | 11.4              | 11.9 |
|   | Aug.        | 13.0 | 13.6 | 11.6    | 12.9 | 12.3        | 12.5 | 13.4              | 13.4 |
|   | Sep.        | 13.5 | 12.5 | 16.1    | 13.0 | 10.0        | 10.9 | 12.1              | 12.1 |
|   | Oct.        | 13.1 | 14.9 | 8.9     | 15.3 | 9.9         | 11.4 | 11.0              | 11.5 |
|   | Nov.        | 15.7 | 16.9 | 12.7    | 18.2 | 10.1        | 12.3 | 11.2              | 11.8 |
|   | Dec.        | 17.3 | 17.5 | 16.7    | 17.3 | 9.4         | 11.8 | 11.1              | 11.9 |
| <b>2004</b>   | Jan.        | 16.5 | 19.0 | 9.9     | 15.8 | 9.8         | 11.6 | 10.9              | 11.9 |
|   | Feb.        | 17.9 | 20.5 | 11.4    | 18.4 | 9.5         | 12.1 | 10.9              | 12.0 |
| <b>Nominal annual real change of monthly average of weekly data</b>       |             |      |      |         |      |             |      |                   |      |
| <b>2002</b>   | Dec.        | 12.4 | 13.0 | 10.9    | 10.6 | (2.2)       | 1.4  | (1.2)             | 0.3  |
| <b>2003</b>   | Jan.        | 11.0 | 13.6 | 5.0     | 14.4 | (2.0)       | 2.4  | (0.8)             | 0.8  |
|   | Feb.        | 11.6 | 12.8 | 8.8     | 12.9 | (0.1)       | 3.3  | 1.6               | 2.8  |
|   | Mar.        | 9.3  | 9.9  | 7.9     | 11.8 | 1.4         | 4.2  | 2.7               | 3.5  |
|   | Apr.        | 13.3 | 13.1 | 13.9    | 9.6  | 1.2         | 3.5  | 1.0               | 2.3  |
|   | May.        | 8.2  | 10.1 | 3.9     | 5.3  | 1.4         | 2.5  | 1.8               | 2.6  |
|   | Jun.        | 8.2  | 9.2  | 5.8     | 6.0  | 2.9         | 3.7  | 3.2               | 3.8  |
|   | Jul.        | 7.1  | 7.9  | 5.1     | 5.5  | 3.3         | 3.9  | 4.1               | 4.5  |
|   | Aug.        | 5.4  | 5.9  | 4.1     | 5.2  | 4.7         | 4.9  | 5.7               | 5.7  |
|   | Sep.        | 6.0  | 5.0  | 8.4     | 5.5  | 2.7         | 3.5  | 4.6               | 4.6  |
|   | Oct.        | 6.1  | 7.8  | 2.2     | 8.2  | 3.2         | 4.6  | 4.2               | 4.6  |
|   | Nov.        | 9.0  | 10.2 | 6.2     | 11.3 | 3.7         | 5.8  | 4.7               | 5.4  |
|   | Dec.        | 10.1 | 10.4 | 9.6     | 10.2 | 2.7         | 5.0  | 4.3               | 5.0  |
| <b>2004</b>   | Jan.        | 9.7  | 12.1 | 3.5     | 9.1  | 3.4         | 5.1  | 4.5               | 5.4  |
|   | Feb.        | 10.9 | 13.4 | 4.8     | 11.4 | 3.0         | 5.4  | 4.3               | 5.4  |
| <b>Average:</b>   |             |      |      |         |      |             |      |                   |      |
|   | <b>2002</b> | 12.0 | 14.5 | 6.6     | 14.2 | (2.4)       | 1.6  | 0.3               | 1.6  |
|   | <b>2003</b> | 8.8  | 9.6  | 6.7     | 8.8  | 2.1         | 3.9  | 3.1               | 3.8  |

<sup>/1</sup> Liabilities subject to reserve requirements  
(\*): Monthly average of the daily data  
Source: Banco de la República.

TABLE 11  
SOURCES OF BASE MONEY 1998-2003  
(ANNUAL FLOW IN BILLIONS OF PESOS)

|   | 1998    | 1999    | 2000   | 2001    | 2002   | 2003<br>1/ |
|---|---------|---------|--------|---------|--------|------------|
| <b>Government</b>                           | 644     | 2,480   | 832    | 914     | 1,667  | 1,673      |
| Profit transfer                             | 83      | 1,244   | 516    | 1,453   | 1,226  | 830        |
| In pesos                                    | 83      | 1,244   | 516    | 1,453   | 1,226  | 1,481      |
| In dollars                                  |         |         |        |         |        | (651) 5/   |
| Net purchase TES                            | 384     | 1,092   | 400    | (623)   | 371    | 760        |
| Treasury accounts<br>in the Bank            | 177     | 143     | (84)   | 84      | 70     | 83         |
| <b>OMA and liquidity quotas</b>             | 899     | 1,730   | (691)  | (1,215) | 1,128  | 1,492      |
| <b>Net purchase<br/>of foreign exchange</b> | (2,761) | (1,437) | 692    | 1,445   | (517)  | (703)      |
| <b>Portfolio receipts 2/</b>                |         |         | (112)  | (225)   | (4)    | (16)       |
| <b>Others</b>                               | (148)   | 44      | 249 3/ | 18      | 181 4/ | 63         |
| <b>Total</b>                                | (1,365) | 2,817   | 971    | 938     | 2,457  | 2,510      |
| <b>Base balance</b>                         | 6,922   | 9,739   | 10,710 | 11,648  | 14,104 | 16,615     |

1/ Provisional figures.

Base July 1 / 02: 11,100.2 billion pesos

Base June 27/03: 12,669.2 billion pesos

2/ Mainly Granahorrar.

3/ Includes purchase of foreign exchange from multilateral organizations for US\$55 million, whose expansion is 126 billion pesos.

4/ Includes purchase of foreign exchange from multilateral organizations for US\$52 million, whose expansion is 131 billion pesos.

5/ From the point of view of the issue, the transfer of profits is a monetary contraction operation, similar to a sale operation of international reserves

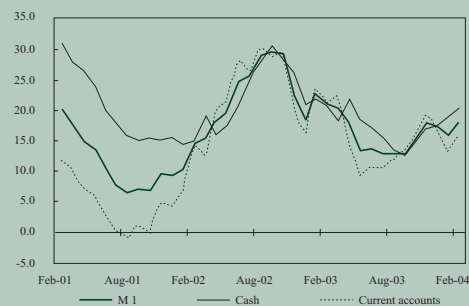
Source: Banco de la República.

the year, due to the trend of its two components: cash and current accounts (Figure 13). However, it should be mentioned that it was more volatile in relation to the public-sector current accounts. So, the annual growth rate of the monthly average of M1 fell from 29.7% in September 2002 to 13.0% in September 2003, ending at 17.3%. On the same dates, the public-sector current accounts had the following annual growth rates: 33.5%, 10.4% and 19.4%, respectively.

### c. Broad monetary aggregate (M3)

The broad monetary aggregate (M3) increased its growth rate with respect to 2002 from 8.1% to 11.2%, average annual variation. This aggregate also expanded in real terms from 1.6% to 3.8%,

FIGURE 13  
M1 AND ITS COMPONENTS  
(ANNUAL GROWTH RATES OF MONTHLY AVERAGE)



Source: Banco de la República.

determined by the faster growth of loans from 3.61% to 10.96% annually. The average annual growth rates of loans by destination in 2003 and

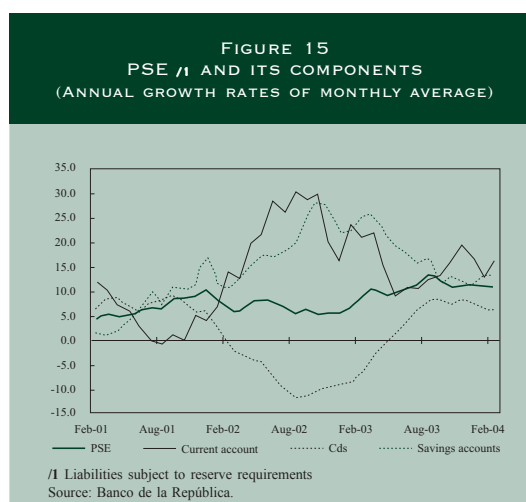
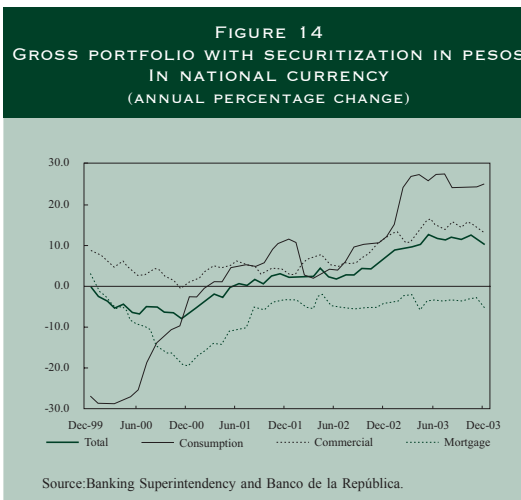
2002 were: consumer credit<sup>9</sup> 24.66% against 7.16%, and commercial credit 13.86% against 6.85%. Housing loans, including securitization, continued at negative growth rates, with an annual average of -3.68%<sup>10</sup> in 2003 (Figure 14).

This faster growth is part of a positive trend in credit institutions which, along with the growth indicators, is reflected in improved profitability and solvency, combined with declining risk indicators<sup>11</sup>. (Table 12).

At the level of M3 components, liabilities subject to reserve requirements grew an average of 10.4% against 6.6% the year before and, within these results, the CDT recovered strongly from an annual negative rate of -9.3% in 2002 to a positive rate of 6.5%. Current accounts increased from 11.6% to 13.0%. In contrast, the growth rate of savings deposits fell from 19.6% to 11.7% (Figure 15 and Table 13).

Deposits of public origin led the increase in liabilities subject to reserve requirements, with an average growth rate in the year of 21.2%, which is higher than the 7.8% growth of private sector deposits, the latter being even lower than nominal GDP growth<sup>12</sup>. However, it is worth noting that while private-sector trended upward, the trend in public deposits was down. In the share of public and private deposits, the latter stabilized around 85.3% of the total (Table 13).

<sup>9</sup> This category includes consumer credit and microcredit, each defined in Banking Superintendency External Circular 011 of March 2003: Consumer credit: "granted to natural persons whose purpose is to finance the acquisition of consumer goods or non-commercial or non-business services, irrespective of their amount. Microcredit: "the set of loan operations with microenterprises whose balance of borrowing with the respective entity does not exceed twenty-five (25) current legal monthly minimum wages. Microenterprises means all units of economic exploitation, managed by natural persons or legal



entities, in business, agricultural, industrial, commercial or service activities, rural or urban, whose labor force does not exceed ten (10) workers and whose total assets are less than five hundred and one (501) current legal monthly minimum wages."

<sup>10</sup> At December 2003 the value of securitization totaled 1.5 trillion pesos and the average change in the mortgage portfolio, not including them, was -10.47%.

<sup>11</sup> A detailed analysis of this trend can be found in *Reporte de Estabilidad Financiera*, Banco de la República, December 2003, available at internet site:

<http://www.banrep.gov.co/docum/Repoestabfinanciera/2003/RepEstabiFinanDic2003.pdf>.

<sup>12</sup> On the latest data available to the third quarter, annual estimated growth of nominal GDP is 9.63% and average growth of private-sector liabilities subject to reserve requirements for the same quarter is 8.60%.

**TABLE 12**  
**FINANCIAL PORTFOLIO OF PRODUCTIVE SECTOR**  
(BILLIONS OF PESOS)

|  | Total  |        |          | Public sector |        |        | Private sector (*) |        |        |
|--|--------|--------|----------|---------------|--------|--------|--------------------|--------|--------|
|  | M3     | TES    | M3 + TES | M3            | TES    | Total  | M3                 | TES    | Total  |
| <b>Balances</b>                            |        |        |          |               |        |        |                    |        |        |
| <b>1999</b>                                | 60,336 | 15,491 | 75,827   | 5,440         | 11,126 | 16,565 | 54,896             | 4,365  | 59,262 |
| <b>2000</b>                                | 62,696 | 20,299 | 82,995   | 6,654         | 13,994 | 20,648 | 56,042             | 6,306  | 62,348 |
| <b>2001</b>                                | 68,580 | 24,744 | 93,323   | 9,405         | 16,463 | 25,868 | 59,174             | 8,281  | 67,455 |
| <b>2002</b>                                | 73,073 | 28,859 | 101,931  | 10,781        | 17,141 | 27,922 | 62,292             | 11,717 | 74,009 |
| <b>2003</b>                                |        |        |          |               |        |        |                    |        |        |
| Jan.                                       | 73,159 | 29,338 | 102,497  | 11,590        | 17,392 | 28,982 | 61,569             | 11,946 | 73,515 |
| Feb.                                       | 74,100 | 30,499 | 104,599  | 12,844        | 17,673 | 30,516 | 61,257             | 12,826 | 74,083 |
| Mar.                                       | 74,093 | 30,618 | 104,712  | 12,173        | 17,629 | 29,802 | 61,920             | 12,990 | 74,910 |
| Apr.                                       | 74,017 | 31,154 | 105,171  | 13,000        | 17,878 | 30,879 | 61,016             | 13,276 | 74,292 |
| May.                                       | 75,604 | 31,802 | 107,406  | 13,829        | 18,049 | 31,879 | 61,775             | 13,752 | 75,527 |
| Jun.                                       | 76,939 | 31,540 | 108,479  | 14,147        | 17,714 | 31,861 | 62,792             | 13,826 | 76,618 |
| Jul.                                       | 76,663 | 31,628 | 108,291  | 13,640        | 17,883 | 31,523 | 63,023             | 13,745 | 76,768 |
| Aug.                                       | 77,147 | 31,697 | 108,844  | 13,885        | 17,624 | 31,509 | 63,262             | 14,073 | 77,335 |
| Sep.                                       | 77,383 | 31,995 | 109,378  | 14,009        | 17,764 | 31,774 | 63,373             | 14,231 | 77,604 |
| Oct.                                       | 77,202 | 31,633 | 108,835  | 13,232        | 17,475 | 30,707 | 63,970             | 14,157 | 78,127 |
| Nov.                                       | 79,302 | 31,556 | 110,858  | 13,787        | 17,026 | 30,814 | 65,515             | 14,530 | 80,045 |
| Dec.                                       | 82,290 | 31,613 | 113,903  | 13,497        | 16,612 | 30,109 | 68,794             | 15,001 | 83,794 |
| <b>Absolute annual change</b>              |        |        |          |               |        |        |                    |        |        |
| <b>1999</b>                                | 3,290  | 3,451  | 6,741    | (1,866)       | 1,381  | (486)  | 5,156              | 2,071  | 7,227  |
| <b>2000</b>                                | 2,360  | 4,808  | 7,168    | 1,214         | 2,868  | 4,082  | 1,146              | 1,940  | 3,086  |
| <b>2001</b>                                | 5,883  | 4,445  | 10,328   | 2,751         | 2,469  | 5,221  | 3,132              | 1,975  | 5,107  |
| <b>2002</b>                                | 4,493  | 4,115  | 8,608    | 1,375         | 678    | 2,054  | 3,118              | 3,437  | 6,554  |
| <b>2003</b>                                | 9,218  | 2,754  | 11,971   | 2,716         | (529)  | 2,186  | 6,502              | 3,283  | 9,785  |
| <b>Percentage annual change end of:</b>    |        |        |          |               |        |        |                    |        |        |
| <b>1999</b>                                | 5.8    | 28.7   | 9.8      | (25.5)        | 14.2   | (2.8)  | 10.4               | 90.2   | 13.9   |
| <b>2000</b>                                | 3.9    | 31.0   | 9.5      | 22.3          | 25.8   | 24.6   | 2.1                | 44.4   | 5.2    |
| <b>2001</b>                                | 9.4    | 21.9   | 12.4     | 41.4          | 17.6   | 25.3   | 5.6                | 31.3   | 8.2    |
| <b>2002</b>                                | 6.6    | 16.6   | 9.2      | 14.6          | 4.1    | 7.9    | 5.3                | 41.5   | 9.7    |
| <b>2003</b>                                | 12.6   | 20.2   | 12.5     | 19.8          | 10.2   | 13.8   | 8.0                | 38.5   | 12.0   |
| <b>Percentage annual average each year</b> |        |        |          |               |        |        |                    |        |        |
| <b>2000</b>                                | 2.7    | 35.8   | 9.3      | (11.3)        | 32.1   | 13.9   | 5.0                | 48.2   | 7.8    |
| <b>2001</b>                                | 7.6    | 17.8   | 10.1     | 25.1          | 11.5   | 15.5   | 5.4                | 36.0   | 8.1    |
| <b>2002</b>                                | 7.8    | 20.2   | 11.0     | 36.4          | 1.7    | 13.3   | 4.0                | 62.2   | 10.4   |
| <b>2003</b>                                | 11.0   | 14.0   | 11.9     | 21.2          | 9.6    | 14.2   | 9.2                | 21.4   | 11.0   |

(\*) Not including the TES of the financial sector.  
Source: Banco de la República, SGEE calculations, based on Trustee and Securities Department.

TABLE 13  
MAIN DEPOSITS OF THE FINANCIAL INSTITUTIONS

| End of:                          | Current account |         |          | CDs     |          |          | Savings |          |          |
|----------------------------------|-----------------|---------|----------|---------|----------|----------|---------|----------|----------|
|                                  | Public          | Private | Total    | Public  | Private  | Total    | Public  | Private  | Total    |
| (Billions of pesos)              |                 |         |          |         |          |          |         |          |          |
| <b>1999</b>                      | 1,732.9         | 5,071.2 | 6,804.0  | 1,103.3 | 22,698.9 | 23,802.2 | 1,047.7 | 16,109.3 | 17,157.0 |
| <b>2000</b>                      | 2,364.0         | 7,073.1 | 9,437.0  | 1,075.6 | 22,048.1 | 23,123.7 | 1,146.3 | 15,682.3 | 16,828.6 |
| <b>2001</b>                      | 3,287.4         | 7,115.6 | 10,403.0 | 1,615.7 | 22,763.6 | 24,379.3 | 1,676.0 | 17,448.7 | 19,124.7 |
| <b>2002</b>                      | 3,393.4         | 8,217.6 | 11,611.0 | 1,466.2 | 20,638.8 | 22,105.0 | 2,862.2 | 20,016.7 | 22,878.9 |
| <b>2003</b>                      |                 |         |          |         |          |          |         |          |          |
| Jan.                             | 2,918.0         | 7,160.3 | 10,078.3 | 1,334.8 | 21,416.2 | 22,750.9 | 3,538.0 | 20,302.7 | 23,840.8 |
| Feb.                             | 3,028.5         | 6,923.5 | 9,952.0  | 1,326.9 | 21,777.9 | 23,104.9 | 3,874.3 | 20,107.4 | 23,981.7 |
| Mar.                             | 2,993.2         | 7,018.8 | 10,012.0 | 1,406.2 | 22,409.6 | 23,815.8 | 3,649.4 | 20,071.0 | 23,720.4 |
| Apr.                             | 2,871.3         | 6,839.3 | 9,710.6  | 1,598.8 | 22,230.6 | 23,829.3 | 4,421.6 | 19,629.2 | 24,050.8 |
| May.                             | 2,721.2         | 6,750.4 | 9,471.6  | 1,804.8 | 22,538.4 | 24,343.2 | 4,264.4 | 19,846.8 | 24,111.2 |
| Jun.                             | 3,008.8         | 7,461.3 | 10,470.1 | 1,627.8 | 22,242.2 | 23,870.1 | 4,193.9 | 20,140.5 | 24,334.4 |
| Jul.                             | 2,749.6         | 7,241.2 | 9,990.7  | 1,628.4 | 22,554.5 | 24,182.9 | 4,100.4 | 20,447.0 | 24,547.4 |
| Aug.                             | 2,748.9         | 7,505.5 | 10,254.5 | 1,742.4 | 22,486.9 | 24,229.3 | 4,269.5 | 20,578.8 | 24,848.3 |
| Sep.                             | 2,814.3         | 7,520.6 | 10,334.9 | 1,481.7 | 22,775.8 | 24,257.5 | 4,276.4 | 20,478.6 | 24,754.9 |
| Oct.                             | 2,780.2         | 7,622.2 | 10,402.3 | 1,626.7 | 22,740.4 | 24,367.1 | 4,910.4 | 20,732.5 | 25,642.9 |
| Nov.                             | 3,136.4         | 7,907.5 | 11,043.9 | 1,473.7 | 22,754.8 | 24,228.5 | 4,411.1 | 21,186.7 | 25,597.8 |
| Dec.                             | 3,813.9         | 9,305.4 | 13,119.3 | 1,511.2 | 22,028.3 | 23,539.5 | 3,749.2 | 21,801.2 | 25,550.4 |
| Annual percentage change         |                 |         |          |         |          |          |         |          |          |
| <b>2000</b>                      | 36.4            | 39.5    | 38.7     | (2.5)   | (2.9)    | (2.9)    | 9.4     | (2.7)    | (1.9)    |
| <b>2001</b>                      | 39.1            | 0.6     | 10.2     | 50.2    | 3.2      | 5.4      | 46.2    | 11.3     | 13.6     |
| <b>2002</b>                      | 3.2             | 15.5    | 11.6     | (9.2)   | (9.3)    | (9.3)    | 70.8    | 14.7     | 19.6     |
| <b>2003</b>                      |                 |         |          |         |          |          |         |          |          |
| Jan.                             | 35.2            | 22.1    | 25.6     | (13.2)  | (7.5)    | (7.9)    | 71.9    | 19.3     | 25.0     |
| Feb.                             | 27.6            | 17.5    | 20.4     | (18.2)  | (5.1)    | (6.0)    | 73.1    | 20.4     | 26.7     |
| Mar.                             | 26.2            | 21.0    | 22.5     | (4.1)   | (1.8)    | (2.0)    | 48.6    | 18.6     | 22.4     |
| Apr.                             | 2.8             | 15.8    | 11.7     | (0.7)   | (1.3)    | (1.2)    | 61.5    | 13.4     | 20.0     |
| May.                             | (1.7)           | 13.1    | 8.4      | 14.0    | 1.9      | 2.7      | 42.8    | 13.8     | 18.1     |
| Jun.                             | 3.8             | 15.3    | 11.7     | 7.6     | 4.1      | 4.3      | 53.4    | 10.7     | 16.4     |
| Jul.                             | 2.3             | 15.7    | 11.7     | 10.1    | 7.1      | 7.3      | 39.1    | 12.5     | 16.2     |
| Aug.                             | 4.7             | 15.9    | 12.7     | 20.4    | 7.1      | 7.9      | 38.1    | 9.7      | 13.7     |
| Sep.                             | 10.1            | 17.7    | 15.5     | (6.0)   | 9.2      | 8.2      | 31.8    | 7.6      | 11.1     |
| Oct.                             | 9.1             | 19.7    | 16.7     | (4.4)   | 8.5      | 7.5      | 47.0    | 6.6      | 12.5     |
| Nov.                             | 14.5            | 18.8    | 17.6     | (7.9)   | 9.1      | 7.8      | 16.5    | 8.2      | 9.5      |
| Dec.                             | 12.4            | 13.2    | 13.0     | 3.1     | 6.7      | 6.5      | 31.0    | 8.9      | 11.7     |
| Annual average percentage change |                 |         |          |         |          |          |         |          |          |
| <b>Jan-Dec/01</b>                | 7.20            | 4.36    | 5.02     | 36.31   | 5.06     | 6.57     | 32.42   | 5.16     | 6.88     |
| <b>Jan-Dec/02</b>                | 30.37           | 12.85   | 17.27    | 2.04    | (7.75)   | (7.26)   | 70.11   | 12.60    | 17.63    |
| <b>Jan-Dec/03</b>                | 12.25           | 17.15   | 15.62    | 0.05    | 3.16     | 2.94     | 46.22   | 12.49    | 16.94    |

Source: Banco de la República. SGEE based on monthly balance sheet and format of operations with public bodies submitted by the financial institutions.

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## B. EXCHANGE RATE

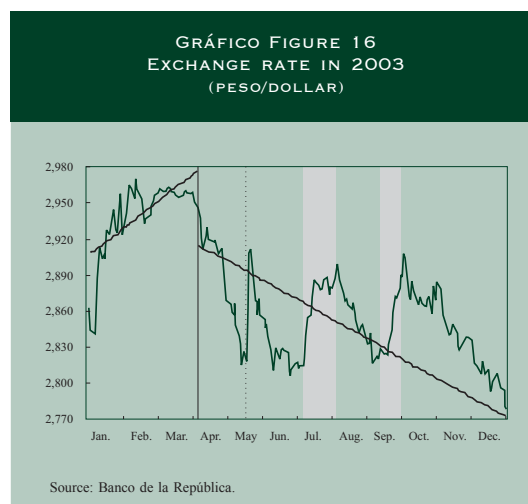
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Between January 1 and December 31, 2003 the representative market rate appreciated 3.02% from 2,864 pesos on January 1 to 2,778 pesos on December 31. However, during the year average devaluation was 15.8% due to the trend in the exchange rate in two clearly differentiated periods (Figure 16): i) from January 1 to April 4, the rate depreciated an average of 28.9% annually, maintaining the trend of the second half of 2002; and ii) from April 5 to December 31 the rate stabilized, with an average devaluation of 11.2% in annual terms<sup>13</sup>.

During the early months of 2003, the exchange rate continued the trend begun at the end of 2002, depreciating at a rate equivalent to 28.3% annually between January and February. This devaluation was associated with the following factors: i) the increase in Colombia's country risk indicator; ii) the reduction in the supply of future dollars from pension and unemployment funds; and iii) the stronger demand for foreign currency from the productive sector, mainly for payment of private external debt and for foreign investments. The rate stabilized in March, after the announcement by Banco de la República on February 14 of its intention to sell up to US\$1 billion through the options mechanism for rundown of the international reserves. So, between March and May, the Bank held three call options for US\$600 million, of which US\$345 million were exercised<sup>14</sup> (Table 14).

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<sup>13</sup> Between May and October 2002, the exchange rate grew rapidly leading to an increase in the level of the rates in 2003, affecting the calculation of the average annual variation. So, annual devaluations until September 2003 are high in relation to later ones.



Between April and December, the Colombian peso appreciated 5.9% with an average annual devaluation of 11.2%<sup>15</sup>. This trend in the exchange rate was associated among other factors with the international situation, especially the devaluation of the dollar against other currencies, which triggered a regional phenomenon that partly explains the appreciation of the Latin American currencies. The low interest rates and the growing trade deficit in the United States increased the expected return on instruments denominated in currencies other than the dollar, such as the euro and the yen, while investment in emerging economies became more attractive (Figure 17). Figure 18 shows the trend in the country risk indicator

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<sup>14</sup> The report presented to Congress in July 2003 explains why, in the framework of monetary policy, it was considered advisable to hold auctions to rundown the international reserves in the early months of the year.

<sup>15</sup> In Colombia, the revaluation process was temporarily interrupted by short-term factors, such as: i) the Brazilian government's difficulty in obtaining passage of the social security reform which triggered, in July (between July 4 and August 8), a regional phenomenon in which almost all Latin American currencies suffered a temporary devaluation: Colombia (2.6%), Brazil (5.2%), Mexico (2.4%), Argentina (5%), Uruguay (5.4%), Peru (0.4%) and Chile (0.5%); and ii) market agents' expectations of devaluation in view of a possible rejection of the referendum measures had an impact on the market exchange rate which devalued 2.5% between September 19 and October 3.

TABLE 14  
PUT AND CALL OPTIONS OF THE BANK  
(MILLIONS OF DOLLARS)

| Effective date<br>(*) | Put options |                  | Call options |                  | Call options for control of volatility |                  |
|-----------------------|-------------|------------------|--------------|------------------|--|------------------|
|                       | Quota       | Amount exercised | Quota        | Amount exercised | Quota                                  | Amount exercised |
| 1999                  | 200.0       | 200.0            | -            | -                | -                                      | -                |
| 2000                  | 1,140.0     | 318.6            | -            | -                | -                                      | -                |
| 2001                  | 835.0       | 629.2            | -            | -                | -                                      | -                |
| 2002                  | 750.0       | 251.5            | 0.0          | 0.0              | 540.0                                  | 414.0            |
| 2003                  |             |                  |              |                  |  |                  |
| Mar.                  | -           | -                | 200.0        | 144.6            | -                                      | -                |
| Apr.                  | -           | -                | 200.0        | 0.0              | -                                      | -                |
| May,                  | -           | -                | 200.0        | 199.9            | -                                      | -                |
| Jul.                  | 50.0        | 6.2              | -            | -                | -                                      | -                |
| Dec.                  | 100.0       | 100.0            | -            | -                | -                                      | -                |
| <b>Total 2003</b>     | 150.0       | 106.2            | 600.0        | 344.5            | 0.0                                    | 0.0              |
| 2004                  |             |                  |              |                  |  |                  |
| Jan.                  | 400.0       | 400.0            | -            | -                | -                                      | -                |

(\*) Does not necessarily coincide with the date of the option auctions. Option auctions are held on the last business day of the month prior to exercise, with the exceptions of December 2002, July 2003, December 2003 and the second auction of January 2004, which were held in the same month.  
Source: Banco de la República.

FIGURE 17  
EURO AND YEN/DOLLAR EXCHANGE RATES



(*Emerging Markets Bond Index, EMBI*) and in the exchange rate of some Latin American economies.

The appreciation of the exchange rate in the last quarter of the year (October 3 to December 31) was associated mostly with the net entry of capital into

the economy, stimulated by the return differential between assets in pesos and in dollars, a trend that has continued in 2004. For example, in the last quarter of 2003, foreign exchange market intermediaries brought a significant amount of future dollars (US\$257 million), mainly from foreign entities (offshore funds) as non-delivery forwards (US\$152 million). In this type of operation, the intermediaries obtain foreign-currency assets but instead of receiving the dollars at maturity they pay or receive the difference between the agreed exchange rate agreed at the start and the exchange rate on the day. To hedge this operation, they must sell dollars, either from their cash position or from a new liability in foreign currency, which pressures the exchange rate downward<sup>16</sup>. In view of this situation and in order to consolidate the

<sup>16</sup> When the forward contract matures, assuming that it is not renewed, the intermediaries pressure the exchange rate upward when they buy dollars to replenish their assets or pay their liabilities. If the contract is renewed, there is no upward pressure on the exchange rate.

country's external position against possible reverses of capital flows, Banco de la República bought US\$100 million in December through the exercise of put options to accumulate international reserves.

In 2003, net income from gifts, transfers and remittances from Colombian workers abroad was an important source of dollars for the country. In total, these items produced estimated net income of

**FIGURE 18**  
**ANNUAL DEVALUATION OF EXCHANGE RATE AND ANNUAL CHANGE OF EMBI+ (PORCENTAJE)**



Source: Bloomberg.



**TABLE 15**  
**OWN POSITION OF CASH AND EXCHANGE FLOWS**  
(MILLIONS OF DOLLARS)

|  | 2003                    |                                  |                    |
|--|-------------------------|----------------------------------|--------------------|
|  | 1 of Jan.<br>-4 of Apr. | 5 of Apr.<br>-31 of Dec.<br>(pr) | Accumulate<br>(pr) |
| Change in own cash position of foreign exchange market intermediaries            | 111.2                   | 209.9                            | 321.1              |
| Foreign exchange trading by the Bank 1/  | 144.6                   | 93.7                             | 238.3              |
| Foreign exchange trading by General Treasury of the Nation 1/                    | 123.0                   | 0.0                              | 123.0              |
| Other changes in own cash position not reflected in the foreign-exchange balance | 0.0                     | 38.0                             | 38.0               |
| Net purchases by productive sector   | (156.4)                 | 78.2                             | (78.2)             |
| Current account  | 238.5                   | 1,129.4                          | 1,368.0            |
| Capital account  | (452.1)                 | (1,172.1)                        | (1,624.2)          |
| Statistical errors and/or omissions 2/   | 57.2                    | 120.8                            | 178.0              |

(pr) Preliminary.

1/ The positive sign signifies foreign exchange sales by the Bank (call options) or the Treasury; the negative sign identifies foreign exchange purchases by the Bank (put options) or the Treasury.

2/ Foreign exchange flows not reported in the current or capital accounts of the exchange balance and changes in own cash position not reflected in the exchange flows, which have not been identified.

Source: Banco de la República, foreign exchange balance.

US\$3.18 billion in 2003, compared with US\$2.51 billion in 2002 and US\$2.26 billion in 2001.

As Table 15 shows, in the total for the year, the financial system increased its own cash position by US\$321 million as a result of the put and call options with Banco de la República for a net value of US\$238 million, net purchases of US\$123 million from the General Treasury of the Nation, net sales to the productive sector of US\$78 million, and other operations for US\$38 million.

In view of the persistent revaluation pressures on the exchange rate in 2004, which could be temporary, the Board considered it prudent to hold accumulation auctions of the international reserves to respond, in the medium and long term, to possible reverses in capital flows and adjustments in the exchange rate that could affect the future inflation trend. In January the Bank bought US\$400 million and in March announced its intention to intervene

with additional purchases of up to US\$700 million, accumulated between April and July. Also, to avoid monetary surpluses, the Bank announced that purchases of reserves would be sterilized up to 50% in the money market by outright sales of TES by the Bank. However, this could affect the Bank's profit and loss projection for this year, as discussed in Chapter V.

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### C. FISCAL POLICY

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The *Report of the Board of Directors to the Congress of the Republic* of July 2003 contained the reflection that the interrelation of fiscal and monetary policy is very close in both the short and long terms, which is especially interesting in the country's present situation. In the long term, the existence of an expected sequence of excessive fiscal deficits reduces the credibility of monetary

policy since private agents anticipate a large monetary expansion in the future, to run down “the public debt when it becomes unsustainable or to directly finance the fiscal deficit”<sup>17</sup>. In these circumstances, expectations of future inflation remain high, regardless of how effective contractive monetary policy is in the short term in achieving low and stable rates of inflation. In this situation, monetary policy is said to be “dominated” by the fiscal situation. In the presence of certain price rigidity, the combination of high inflationary expectations (originating from the fiscal situation) and a tight monetary policy implies costs in terms of economic activity and employment. Naturally, this situation becomes a short-term problem when the level of public debt is high and, given the expected deficits, rapidly approaches the point at which it becomes unsustainable.

In the short term, fiscal policy also determines the results of monetary policy through its impact on credit, capital and exchange markets. Some of these effects have been palpable in recent months in Colombia. In an economy with adequate access to external financing, as our situation has been, the financing of the public deficit pressures domestic interest rates upward and, through this channel, attracts external capital; or the public financing is direct with external savings funds, in which case the currency appreciates in nominal and real terms.

In an economy with restricted access to external financing, the effects are present through other mechanisms. The existence of a high fiscal deficit implies strong pressure on internal savings funds, which is reflected in turn in high real

interest rates on credit and capital markets, and in the shift from private spending (consumption or investment). Monetary policy can relieve this situation in the short term by expanding liquidity which temporarily lowers interest rates. However, this expansion would imply higher inflation rates in the future<sup>18</sup>. And even if the authority announces a tight monetary policy, its credibility is eroded (inflationary expectations increase) because of the public’s perception of possible pressures on monetary policy to moderate the impact on interest rates of financing the public deficit. Even when monetary policy is expansionary, its effectiveness for stimulating aggregate demand can be limited, if the additional liquidity provided is channeled into financing the public deficit instead of into the credit supply to the private sector. So, fiscal policy shapes the results and decisions of monetary policy decisions.

In the longer term, when expansion of public expenditure is concentrated in goods and services that are not tradable internationally (e.g. higher expenditure on personal services), their prices tend to increase more rapidly than those of tradable goods. The sectors that produce them are harmed and put pressure on the monetary authority to compensate through increased depreciation of the currency. Once again, fiscal policy shapes the conduct and results of monetary policy. Colombia is one of the cases where fiscal policy has determined monetary policy in the last decade, through all the channels described.

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<sup>17</sup> Provided this has been issued at nominal fixed interest rates.

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<sup>18</sup> It can even happen that this easy monetary policy is ineffective in lowering the interest rates relevant for public finance (usually long term) because monetary expansion raises inflationary expectations and, with them, nominal interest rates in the longer term.

## 1. Fiscal results of 2003

At the end of 2003, the consolidated public-sector recorded a deficit of 6,422 billion pesos, 2.8% of annual GDP, down 0.8% of GDP compared with 2002. This fall is associated mainly with the improvement in the finances of the National Central Government (GNC). It should be borne in mind that although the deficit was in line with the official target, the expansion of expenditure caused by the failure of the referendum prevented achievement of a lower deficit, which was the Government's initial objective (Table 16).

GNC finances recorded a deficit of 12,151 billion pesos equivalent of 5.4% of GDP. Compared with the situation in 2002, the size of the deficit dropped 0.7% of GDP attributable to the higher growth rate of revenue over expenditure. As shown in Table 17, total revenue grew 13.5% and expenditure 8.9%.

On the revenue side, tax receipts grew 15.8% thanks to the growth of income tax and sales tax. These two taxes were influenced by the recovery of economic activity during the year and by the tax reform passed at the end of 2002 which broadened the VAT base, eliminated some tax breaks and established a 10.0% income tax surcharge. Other

TABLE 16  
CONSOLIDATED PUBLIC SECTOR  
FISCAL BALANCE, 2002-2004

| Item   | Billions of pesos |                   |                   | Percentage of GDP |              |                |
|--|-------------------|-------------------|-------------------|-------------------|--------------|----------------|
|  | 2002              | 2003              | 2004<br>(proj)    | 2002              | 2003         | 2004<br>(proj) |
| Electricity  | 192.0             | 760.0             | 215.0             | 0.1               | 0.3          | 0.1            |
| Emcali   | 108.0             | 379.0             | 372.0             | 0.1               | 0.2          | 0.2            |
| EPM  | 270.0             | (11.0)            | (37.0)            | 0.1               | (0.0)        | (0.0)          |
| FAEP   | (390.0)           | (139.0)           | (371.0)           | (0.2)             | (0.1)        | (0.2)          |
| Ecopetrol  | 408.0             | 1,246.0           | 867.0             | 0.2               | 0.6          | 0.4            |
| Telecom  | 310.0             | (285.0)           | 118.0             | 0.2               | (0.1)        | 0.0            |
| Rest of entities   | 654.0             | 555.0             | 3,155.0           | 0.3               | 0.2          | 1.3            |
| Social security  | 2,363.0           | 1,703.0           | 1,661.0           | 1.2               | 0.8          | 0.7            |
| Regional and local   | 1889.0            | 927.0             | 833.0             | 0.4               | 0.4          | 0.3            |
| FNational Coffee Fund  | (168.0)           | 311.0             | 57.0              | (0.1)             | 0.1          | 0.0            |
| <b>1. Subtotal decentralized sector</b>                        | <b>4,636.0</b>    | <b>5,446.0</b>    | <b>6,870.0</b>    | <b>2.3</b>        | <b>2.4</b>   | <b>2.8</b>     |
| <b>2. National Government</b>                                  | <b>(12,435.1)</b> | <b>(12,151.2)</b> | <b>(13,202.0)</b> | <b>(6.1)</b>      | <b>(5.4)</b> | <b>(5.4)</b>   |
| A. Total non-financial public sector (SPNF) (1+2)              | (7,799.1)         | (6,705.2)         | (6,332.0)         | (3.8)             | (3.0)        | (2.6)          |
| B. Cash losses and gains of Bank                               | 1,635.0           | 1,437.0           | 831.0             | 0.8               | 0.6          | 0.3            |
| C. Losses and gains Fogafin cash                               | 601.0             | 582.0             | 342.0             | 0.3               | 0.3          | 0.1            |
| D. Cost of financial restructuring                             | (1,181.0)         | (941.0)           | (941.0)           | (0.6)             | (0.4)        | (0.4)          |
| E. Adjustments   | (627.0)           | (795.0)           | 0.0               | (0.3)             | (0.4)        | 0.0            |
| <b>F. Total consolidated public sector (A + B + C + D + E)</b> | <b>(7,371.1)</b>  | <b>(6,422.2)</b>  | <b>(6,100.0)</b>  | <b>(3.6)</b>      | <b>(2.8)</b> | <b>(2.5)</b>   |

(proj) projected  
Source: Confis.

CUADRO TABLE 17  
NATIONAL CENTRAL GOVERNMENT  
FISCAL BALANCE, 2002-2003  
(BILLIONS OF PESOS)

|   | 2002       | 2003       | Annual Growth<br>2003/2002 |
|---|------------|------------|----------------------------|
| <b>I. Total revenue (A + B + C + D + E)</b>               | 30,344.0   | 34,445.5   | 13.5                       |
| A. Tax  | 27,086.7   | 31,372.8   | 15.8                       |
| Revenue   | 10,626.4   | 12,218.1   | 15.0                       |
| Internal VAT  | 7,363.7    | 8,887.9    | 20.7                       |
| External VAT  | 3,264.8    | 4,183.5    | 28.1                       |
| Taxes   | 2,083.5    | 2,158.9    | 3.6                        |
| Gasoline  | 976.6      | 1,025.0    | 5.0                        |
| Financial transactions                                    | 1,443.2    | 1,621.5    | 12.4                       |
| Democratic security                                       | 1,240.7    | 1,231.0    | (0.8)                      |
| Others  | 87.8       | 46.9       | (46.6)                     |
| B. Non-tax  | 306.8      | 205.8      | (32.9)                     |
| C. Special funds  | 316.0      | 321.0      | 1.6                        |
| D. Capital funds  | 2,523.5    | 2,419.0    | (4.1)                      |
| Financial return  | 553.7      | 534.3      | (3.5)                      |
| Financial surplus   | 1,501.7    | 1,674.4    | 11.5                       |
| Others  | 468.1      | 210.3      | (55.1)                     |
| E. Revenue accrued  | 111.0      | 126.9      | 14.3                       |
| <b>II. Total expenditure (A + B + C + D + E + F)</b>      | 42,779.1   | 46,596.7   | 8.9                        |
| A. Interest   | 7,902.4    | 9,656.0    | 22.2                       |
| External  | 3,575.7    | 4,350.0    | 21.7                       |
| Domestic  | 4,326.7    | 5,306.0    | 22.6                       |
| B. Operating  | 29,336.7   | 32,568.1   | 11.0                       |
| Personal services   | 5,719.6    | 6,130.0    | 7.2                        |
| General expenses  | 1,982.1    | 2,162.7    | 9.1                        |
| Transfers   | 21,635.0   | 24,275.4   | 12.2                       |
| C. Investment   | 2,955.0    | 2,880.3    | (2.5)                      |
| D. Net loan   | 1,259.0    | 865.0      | (31.3)                     |
| E. Floating debt  | 905.0      | 65.2       | (92.8)                     |
| F. Indexation TES B denominated in real value units (UVR) | 421.0      | 562.1      | 33.5                       |
| <b>III. Deficit (-) or surplus (+) (*)</b>                | (12,435.1) | (12,151.2) | (2.3)                      |
| <b>Cost of financial restructuring</b>                    | 1,181.0    | 941.0      | (20.3)                     |
| <b>IV. Financing (A + B + C + D)</b>                      | (13,616.1) | (13,092.2) | (3.8)                      |
| A. Net external loans                                     | (19.0)     | 5,599.6    | (29,571.6)                 |
| Disbursements   | 5,093.9    | 12,783.6   | 151.0                      |
| Amortizations   | 5,112.9    | 7,184.0    | 40.5                       |
| B. Net domestic loans                                     | 6,563.0    | 7,486.0    | 14.1                       |
| Disbursement  | 13,366.0   | 13,525.0   | 1.2                        |
| Amortizations   | 6,803.0    | 6,039.0    | (11.2)                     |
| C. Banco de la República profits                          | 1,226.0    | 1,479.7    | 20.7                       |
| D. Others   | 5,846.1    | (1,473.1)  | (125.2)                    |
| <b>V. Deficit as percentage of GDP</b>                    | (6.1)      | (5.4)      |                            |

(\*) Not including the cost of the financial restructuring.  
Source: Confis.

important events were the payment of the last two installments of the democratic security tax, created temporarily to strengthen the armed forces and police, and the expansion of financial surpluses of over 11.0%.

On the expenditure side, interest on debt grew 22.2%, and operations 11.0% including personal services which rose 7.2%, general expenditure 9.1% and transfers 12.2%. Investment expenditure fell slightly, while net loans to Metro de Medellín, Urrá and Emcali among others, were down over 30.0% from 2002,

The deficit was financed from internal and external funds. The Government's external borrowing increased 5,600 billion pesos following disbursements of 12,784 billion pesos and amortizations of 7,184 billion pesos. Domestic borrowing grew 7,486 billion pesos as a result of new disbursements for 13,525 billion pesos and amortizations of 6,039 billion pesos. The main domestic debt instrument was the TES B bills with gross placements of 13,432 billion pesos. The Bank transferred profits totaling 1,480 billion pesos.

## **2. The financial plan for 2004**

For 2004 the Fiscal Policy Council (Confis) approved a fiscal deficit target of 2.5% of GDP, down 0.3% from the 2003 deficit in terms of GDP. To achieve this target, the GNC will have to maintain the 2003 deficit while the decentralized sector produces a fiscal surplus of around 2.8% of product<sup>16</sup> (Table 16).

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<sup>19</sup> The 2004 financial plan approved on December 23, 2003 fixed the public-sector fiscal target.

A deficit of 13,202 billion pesos is projected on the GNC fiscal accounts, 5.4% of GDP. Compared with 2003 revenue will increase 13% and expenditure 12.0%. It should be borne in mind that the trend in revenue will depend largely on the impact of the tax reform passed in late 2003 (Law 863), which is estimated at 1 trillion pesos, along with the execution of the anti-evasion plan and the implementation of the DIAN tax management policy; together, these could generate additional revenue of 1.2 trillion pesos. In this respect, it is important that the expenditure programming consistent with the deficit should not be modified during the year, and that economic performance be in line with the official estimates of a 3.8% increase in real product.

The Government's limited room for maneuver requires the generation of a fiscal surplus of 2.8% of GDP in the decentralized sector. According to the figures from the Financial Plan, this surplus would come mostly from the social security sector, Ecopetrol and the regional and local public sector, as well as the sale of State equity interest in some companies, and the decapitalization of public funds. However, the uncertain nature of the two latter operations, which would total 2.4 trillion pesos, could compromise compliance with the deficit target and the conduct of fiscal and macroeconomic policy. While the decapitalization of public funds requires a legal procedure to change the use of the funds, the sale of equity depends essentially on market conditions.

## **3. Medium- and long-term fiscal outlook for the National Government**

Although the 2004 financial plan fixes a fiscal target of 2.5% of GDP for the consolidated public sector, the deficit of the central administration will stay high

(5.4% of GDP). At the end of fiscal 2003, the adjustment included in the accounts of the national government for 2004 will be insufficient. In addition, the accounts of the main national expenditure programs for 2005 and later years are disquieting. The inflexibility of the main expenditure items, together with limited possibilities of further increases in taxes, create a situation of structural imbalance in government finances, which will have to be managed realistically. All sectors of Colombian society need to realize the seriousness of the situation and support the reforms needed to put the finances of the central administration on a sound footing as soon as possible.

Despite the many tax reforms of the last decade, the growth of GNC revenue has been insufficient to finance expanding expenditure commitments. As public opinion well knows, the reforms have created new taxes and have substantially increased the rates and tax base of most taxes. Even so, the nation's tax receipts increased only four points of GDP between 1994 and 2003, which is evidence of a great effort by the country to finance the State but also the limited scope of the reforms to cover higher expenditure, which increased eight points of product in the period.

To address the revenue shortfall, the National Government has supplemented its funds with profits from Ecopetrol and Banco de la República, and receipts from the privatization of assets and the granting of licenses for private telecommunications operations. But above all, the government has made growing use of credit, mainly through placement of TES on the domestic market and sovereign bonds on international capital markets. At the end of 2003 the level of borrowing approached 120 trillion pesos (53.2% of GDP). The recent trend in the debt and the heavier burden of its service in the national budget means that the Government deficit has to

be contained and reduced to make public finances viable in the medium term.

The interest service on Government debt will be 4.7% of GDP in 2005, committing one third of current revenue. About 23.0% of the Nation's current payments will be used to pay interest on debt, which will be more burdensome from 2006 onward as the Government borrows more to finance the Treasury shortfall. Territorial transfers will total 5.6% of GDP in 2005, becoming the largest item in central administration expenditure, absorbing 39.0% of the nation's current revenue. The funds transferred to the regions will tend to rise in the next few years because of the new settlement rule under the general transfer system (Law 715 of 2001) fixes real growth at a minimum of 2.5% between 2006 and 2008.

Although the new transfer system made the Government's budget management more flexible by separating the amount of current revenue transferred from the current revenue of the Nation, it did not relieve the burden of territorial transfers on the fiscal accounts of the Government. In fact, the amount transferred through the general transfer system in 2002 and 2003 represented a similar amount in terms of GDP as in 2001, the last year of the previous system. The significant weight of this item, together with the higher level of public debt and the Government's limited room for maneuver to reduce other expenses and further expand taxation, are substantial reasons for considering some type of adjustment to the system, without reducing funding for education and health. Perhaps a reform in this respect should be accompanied by a review of the territorial tax scheme, especially the municipal, where the main taxes such as property and industry and commerce could have some collection potential.

On another expenditure front, the Nation's appropriations to meet pension commitments arising from the 1993 legislation have increased considerably in recent years. For this item, the Nation's payments rose from 1.2% in GDP in 1994 to 3.2% of GDP in 2003, representing real average growth of around 14.0% per year. On the most conservative projections, national contributions will continue growing in terms of GDP until they reach 6.1% of GDP in 2012. In the short term, these funds are expected to rise from 3.8% of GDP in 2004 to 4.8% of GDP in 2005, maintaining this upward trend for seven more years. The low rate of new registrations with the Social Security Institute (ISS) and the recalculations of pensions due to inadequate information from the beneficiaries, among other factors, have worsened the financial deficit. It is now clear that the additional revenue generated by the latest reform of the pension system (Law 797 of 2003), which began to be applied last January, will be totally insufficient to cover the growing financial imbalance in the system.

After adding the funds to continue the democratic security program, which will fluctuate around 2.5% in 2005, expenditure on territorial transfers, pensions, law enforcement, and debt interest will total 17.6% of GDP in 2005, against national current revenue, which in the best scenario will rise to 14.5% of GDP. This fiscal shortfall of over 3.0% of GDP will increase by at least three points, taking into account the other State operating costs of 1.8% of GDP for payroll and general expenditure, the "other transfers" which are tied to innumerable decrees and laws which commit the national budget and which now total 1.5% of product, and a minimum level of investment of

1.0% of GDP. What these overall figures show is simply the urgent need to redirect certain expenditure programs so that they clearly incorporate the Government's restrictions on revenue. A reform of national taxes, like that promoted by the political agreement, would help to adjust GNC finances but an adjustment in public expenditure is also essential to contribute to the process.

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#### D. AGREEMENT WITH THE IMF

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On December 24, 2003, the IMF Board ratified the Standby Agreement for 2004 with the Government of Colombia. The objective of the agreement is to strengthen macroeconomic and structural policies and improve the trend in the public debt.

With the continuation of the Agreement, Colombia may use this year a total of 774 million special drawing rights (SDRs) (approximately US\$1.05 billion), with right to a first disbursement for 193.5 million SDRs (about US\$264 million) and the remaining amount quarterly, subject to compliance with targets and subject to regular reviews of the current program by the IMF. So far the country has not used these funds.

Although the expenditure freeze and the pension reform proposed in the national referendum were not approved, the Government has been developing alternative measures to achieve the fiscal adjustment. Table 18 shows that targets were met in 2003; as a percentage of GDP the fiscal deficit was 2.8%, which is in line with the target.

**TABLE 18**  
**PROGRAM WITH INTERNATIONAL MONETARY FUND (IMF)**

|   | Dec-03               |                 |                         | IMF target 1/ |          |
|---|----------------------|-----------------|-------------------------|---------------|----------|
|   | IMF target 1/<br>(a) | Observed<br>(b) | Difference<br>(b) - (a) | Mar-04        | Jun-04   |
| Floor net international reserves (millions of dollars) 2/   | 10,540               | 10,524          | (16)                    | 10,240        | 10,300 * |
| Inflation target (percentage) 3/  | 5.90                 | 6.49            | 0.59                    | 6.00          | 6.00 •   |
| Ceiling of overall consolidated public-sector deficit since January 1, 2003 (billions of pesos) 4/                                      | 6,375                | 6,423           | 48                      | 1,200         | 1,650 *  |
| Ceiling of net accumulated disbursement of medium and long-term public-sector external debt since January 2003 (millions of dollars) 4/ | 1,850                | 716             | (1,134)                 | 800           | 1,300 *° |
| Ceiling of net accumulated disbursements of short-term public-sector external debt since January 12003 (millions of dollars) 4/         | 100                  | (275)           | (375)                   | 200           | 200 *°   |

1/ Relates to an indicative target, not a compliance criterion.

2/ The technical memorandum of the IMF agreement established a downward adjustment of US\$2 billion for the floor of the net international reserves.

3/ The technical memorandum of the IMF agreement established a band of more or less 2% around the year-end inflation target.

4/ Provisional information to December 2003, subject to revision.

Source: Banco de la República (\*), DANE (•) and Ministry of Finance and Public Credit (°).

**Box 2**  
**CURRENT LEVEL OF THE EXCHANGE RATE**

The nominal exchange rate is an important indicator in an economy because its trend affects variables such as prices, growth, the trade balance and public and private external debt, among others. This rate is defined as the price of a unit of foreign currency in terms of the national currency. Increases and decreases in the rate are known as nominal devaluation (depreciation) and nominal revaluation (appreciation), respectively.

The real exchange rate, in contrast, is the relative price of the goods and services of a foreign country in terms of the goods and services produced locally. This indicator is useful for measuring a country's competitiveness in international trade.

The methodology for measuring the "degree" of appreciation or depreciation of a country's exchange rate is not as simple as it might seem. It is common to find agents that use the changes in the US dollar rate as an estimate of this measurement. However, for economic policymakers, this indicator is not always the best approximation because the devaluation of our currency against those of the other countries with which we trade or compete has also to be taken into account.



Table R2.1 shows the nominal annual devaluation of the Colombian peso with the respect to its 20 main trading partners<sup>1</sup>. Despite the -0.3% revaluation against the dollar in December 2003, weighted average devaluation based on trade with other countries was 2.4%. With the exception of Venezuela, in 2003 the total annual weighted average depreciation of the Colombian peso against all countries was 13.7%.

TABLE R2.1  
REAL EXCHANGE RATE INDEXES, FIXED WEIGHTINGS - TRADING PARTNERS

| Country               | Weightings (%) | ITC           |               | ITCR-PPI    |              | ITCR-CPI    |              |
|-----------------------|----------------|---------------|---------------|-------------|--------------|-------------|--------------|
|                       |                | Nominal       | devaluation   | Real        | devaluation  | Real        | devaluation  |
|                       |                | Dec-03        | Average       | Dec-03      | Average      | Dec-03      | Average      |
| <b>Industrialized</b> |                |               |               |             |              |             |              |
| United States         | 39.0           | (0.27)        | 15.32         | (1.06)      | 11.29        | (4.59)      | 10.09        |
| Euro-zone (*)         | 15.0           | 20.25         | 38.17         | 15.21       | 28.39        | 14.92       | 31.43        |
| Japan                 | 7.0            | 12.69         | 24.53         | 6.48        | 13.19        | 5.08        | 15.91        |
| United Kingdom        | 2.0            | 10.13         | 25.52         | 5.94        | 16.69        | 5.37        | 19.82        |
| Switzerland           | 2.0            | 13.42         | 33.34         | 7.93        | 22.15        | 7.13        | 25.25        |
| Canada                | 2.0            | 18.41         | 29.43         | 8.38        | 17.24        | 13.42       | 24.17        |
| Sweden                | 1.0            | 21.18         | 38.65         | 13.79       | 25.98        | 15.22       | 31.91        |
| <b>External</b>       | <b>68.0</b>    | <b>6.75</b>   | <b>22.49</b>  | <b>4.05</b> | <b>15.92</b> | <b>1.80</b> | <b>16.50</b> |
| <b>Developing</b>     |                |               |               |             |              |             |              |
| Mexico                | 3.0            | (9.45)        | 3.16          | (8.69)      | 1.59         | (11.58)     | 0.68         |
| Venezuela             | 14.0           | (17.40)       | (18.92)       | 15.95       | 13.03        | (1.43)      | (0.59)       |
| Ecuador               | 5.0            | (0.27)        | 15.32         | 0.09        | 14.04        | (0.67)      | 16.20        |
| Brazil                | 2.0            | 23.64         | 8.15          | 24.26       | 27.07        | 26.90       | 15.85        |
| Chile                 | 2.0            | 16.69         | 15.23         | 9.24        | 12.59        | 10.75       | 10.58        |
| Peru                  | 2.0            | 0.87          | 16.85         | (2.67)      | 8.86         | (2.92)      | 11.54        |
| Panama                | 3.0            | (0.27)        | 15.32         | (4.41)      | 7.12         | (4.90)      | 9.13         |
| Argentina             | 1.0            | 18.60         | 16.15         | 13.93       | 31.27        | 15.44       | 23.76        |
| <b>External</b>       | <b>32.0</b>    | <b>(6.05)</b> | <b>(2.53)</b> | <b>8.17</b> | <b>13.11</b> | <b>0.51</b> | <b>6.37</b>  |
| <b>Total</b>          | <b>100.0</b>   | <b>2.41</b>   | <b>13.74</b>  | <b>5.37</b> | <b>15.00</b> | <b>1.38</b> | <b>13.11</b> |

(\*)Relates to Germany, Holland, Spain, France, Italy and Belgium.  
Source: Banco de la República.

Another way of measuring the nominal devaluation of our currency is to make the calculation in relation to countries that are our main direct competitors in international markets. Table R2.2 shows the main countries that export coffee, bananas, flowers and textiles to the United States. In December 2003, nominal annual weighted devaluation of the peso against these countries was 1.7%, and the average for all the year was 15.2%.

But the most important factor in competitiveness is price behavior. When the comparison is made in the same currency, the prices of a basket of goods and services produced by the foreign

<sup>1</sup> Imports + non-traditional exports.

TABLE R2.2  
ITCR FIXED WEIGHTINGS COMPETITOR COUNTRIES

| Country              | Average weightings, 2003 (%) | ITC     |             | ITCR-C  |             |
|----------------------|------------------------------|---------|-------------|---------|-------------|
|                      |                              | Nominal | devaluation | Real    | devaluation |
|                      |                              | Dec-03  | Average     | Dec-03  | Average     |
| Brazil               | 7.50                         | 23.64   | 8.15        | 26.90   | 15.85       |
| Canada               | 2.80                         | 18.41   | 29.43       | 13.42   | 24.17       |
| Costa Rica           | 9.50                         | (9.83)  | 4.05        | (6.97)  | 6.30        |
| Corea                | 1.50                         | 1.00    | 21.00       | (1.93)  | 16.90       |
| Republica Dominicana | 2.50                         | (40.39) | (27.00)     | (20.14) | (13.54)     |
| Ecuador              | 13.80                        | (0.27)  | 15.32       | (0.67)  | 16.20       |
| El Salvador          | 2.00                         | (0.30)  | 15.31       | (4.03)  | 9.91        |
| Guatemala            | 11.30                        | (5.00)  | 13.53       | (5.58)  | 11.91       |
| Honduras             | 4.30                         | (5.00)  | 9.27        | (4.73)  | 9.84        |
| Hong Kong            | 3.60                         | 0.16    | 15.49       | (7.73)  | 4.98        |
| India                | 2.90                         | 5.37    | 20.51       | 2.63    | 16.77       |
| Indonesia            | 4.80                         | 4.69    | 25.08       | 3.28    | 24.45       |
| Italia               | 2.00                         | 20.25   | 38.17       | 15.74   | 32.41       |
| Kenia                | 0.70                         | 4.37    | 19.46       | 6.19    | 22.41       |
| Mexico               | 12.40                        | (9.45)  | 3.16        | (11.58) | 0.68        |
| Holland              | 6.20                         | 20.25   | 38.17       | 14.50   | 31.99       |
| Nicaragua            | 1.70                         | (5.14)  | 9.14        | (5.06)  | 7.12        |
| Panama               | 0.30                         | (0.27)  | 15.32       | (4.90)  | 9.13        |
| Peru                 | 2.10                         | 0.87    | 16.85       | (2.92)  | 11.54       |
| Philippines          | 2.10                         | (3.75)  | 9.90        | (6.81)  | 5.69        |
| Tailandia            | 1.90                         | 8.55    | 19.39       | 3.59    | 13.27       |
| Venezuela            | 0.40                         | (17.40) | (18.92)     | (1.43)  | (0.59)      |
| Vietnam              | 3.70                         | (1.83)  | 13.60       | (5.60)  | 9.29        |
| <b>Total</b>         | 100.00                       | 1.67    | 15.17       | (2.71)  | 10.89       |

Source: Banco de la República.

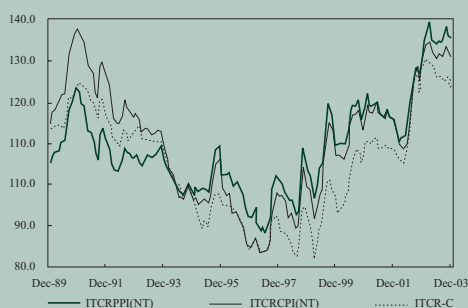
country and the prices of the domestic country give the real exchange rate. An increase in this indicator, known as "real devaluation," benefits exporters, because for each good sold abroad they acquire a larger quantity of domestic goods, while the increase is unfavorable to importers because these agents have the to allocate a larger quantity of domestic products, valued in domestic currency, to acquire foreign goods. The term "real revaluation" used when the real exchange rate falls produces the contrary effect in each sector.

So, when the real exchange rate is studied between trading partners which tend to be complementary, that is they produce different goods and services, the changes are examined in the purchasing power of the local compared with the foreign currency.

A nominal devaluation does not always generate a real long-term depreciation, and consequently an increase in the competitiveness of the economy. If the nominal depreciation of the currency is not accompanied, for example, by a reduction in domestic spending, domestic prices can increase as much as the increase in devaluation, and the real exchange rate returns to its original level leaving the inflationary cost as the final effect.

To take into account the price effect, the Bank calculates two indexes for the real exchange rate (TCR) weighted according to non-traditional trade with our main trading partners: the ITCR-CPI and ITCR-PPI<sup>2</sup>. As the Figure shows, these indicators are at what are considered record high levels and in December 2003, both indicators reflected a real annual depreciation of 1.4% and 5.4%, respectively (Table R2.1).

FIGURE R2.1  
MEASUREMENTS OF REAL EXCHANGE INDEX  
GEOMETRICAL AVERAGE 1994 = 100  
(MOVING WEIGHTINGS)



**ITCR-PPI and ITCR-CPI:** are calculated with the 20 main trading partners, weighted by non-traditional trade, and using as price measurement the PPI and the CPI, respectively.  
**ITCR-C:** measurement that compares in the same currency, the CPI of Colombia with the 23 countries that are our direct competitors in the United States, in products such as coffee, bananas, flowers and textiles.  
Source: Banco de la República.

The Bank also calculates the ITCR with third countries (ITCR-C). This measure of competitiveness is obtained by comparing in the same currency, the Colombian CPI with that of our direct competitors in the coffee, banana, flowers and textile markets in the United States. In December 2003, although the ITCR-C recorded an annual appreciation of -2.7%, its average annual depreciation was 10.9% (Table R2.2). It is precisely the average trend in the year that is interesting from the point of view of the exporter and importer.

In short, it is important to take into account the changes in the real exchange rate, which is the real measure of the competitiveness of the goods and services produced in the country, not only with the United States but also with the other partners and competitors.

These achievements are due to the low inflation in the country in recent years and to the depreciation of the currencies of some trading partners in relation to the Colombian peso.

The exchange rate index can also be calculated by moving weightings instead of fixed weightings, which reflect the fact that trade can vary from year to year with respect to composition and

<sup>2</sup> Real exchange rate index (ITCR); Producer price index (PPI).

destination. With the moving weightings, the results are very similar to those already described on the trend in the exchange rate in 2003 (Table R2.3). In relation to Colombia's 20 main trading partners in 2003, with the exception of Venezuela, the peso devalued in nominal terms on average against all other partners, reaching an annual average of 15.9%<sup>3</sup>. With respect to the competitors - defined as the main countries that sell coffee, bananas, flowers and textiles to the United States - on average in the year, the nominal weighted annual devaluation of the peso was 15.2%. In real terms, using the CPI as deflator, average devaluation was 12.9% in relation to the main partners, and 10.9% in relation to competitors. In conclusion, using all possible measurements of the nominal and real exchange rates, in 2003 the Colombian peso recorded a strong average devaluation.

TABLE R2.3  
CHANGES IN THE EXCHANGE RATE USING MOVING WEIGHTINGS, 2003

|                              | Nominal  |         | Real (CPI deflator) |         |
|------------------------------|----------|---------|---------------------|---------|
|                              | December | Average | December            | Average |
| 20 main trading partners     | 4.94     | 15.92   | 0.56                | 12.89   |
| 23 main competitor countries | 1.67     | 15.17   | (2.71)              | 10.89   |

Source: Banco de la República.

For this reason, as the Figure shows, these indicators are at historically high levels. According to the traditional measurements of ITCR and the comparison with competitor countries, the recent appreciation of the peso against the dollar has not significantly affected the degree of competitiveness of our products.

<sup>3</sup> Weighted moving average of non-traditional trade: imports + non-traditional exports

## IV

### THE LEVEL OF INTERNATIONAL RESERVES AND THEIR RECENT MANAGEMENT

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#### A. ADEQUATE LEVEL OF INTERNATIONAL RESERVES

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The adequate level of the international reserves has been the subject of various documents and publications of Banco de la República in recent years. In the reports to Congress, the Board has given detailed explanations of the criteria that it has used to evaluate the current level and management of the country's international reserves. The Board uses international indicators on liquidity and external vulnerability, compares them with other nations of a similar level of development, and evaluates the external and internal circumstances of the Colombian economy.

#### 1. Estimate of optimal reserves

The Bank also uses models to calculate optimal reserves<sup>20</sup>, which depends on two factors:

- ✘ The “opportunity cost” of maintaining international reserves, measured as the difference between the cost of the external debt and the return on the international reserves.
- ✘ The benefit of maintaining international reserves, measured as the loss of product that the country avoids by having a level of reserves that makes the economy stable and relatively safe from negative external shocks.

The opportunity cost of the reserves arises from the fact that central banks have to invest in low-risk liquid assets, which generally have a lower return than other types of investments. Banco de la República needs to have international reserves on hand in case of need to intervene in the markets to achieve the inflation target, or if the performance of the economy is threatened in the short term. It is also responsible to society for the management of the reserves and for obtaining positive returns. Only countries that have very high levels of international reserves can use them to make risky investments.

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<sup>20</sup> An exposition and more detailed development of the optimal reserve model can be found in the Technical Unit document (2003). “Análisis del nivel adecuado de reservas internacionales,” in *Revista del Banco de la República*, December, also

available on the Bank's website: <http://www.banrep.gov.co/economia/notasedi/ano2003/Separata-Nivel-Adecuado-Reservas-Internacionales.pdf>.

The benefits of the reserves are related to protecting the economy from an external crisis. Even in situations like the current one, in which the external and internal environments are favorable, the risk of a reversal in the future is high. The external crises of countries arise from various circumstances such as unsustainable deficits on the current account of the balance of payments, levels of short-term external debt higher than the balance of the international reserves, loss of confidence in the solvency of the financial system, contagion or high fiscal deficits that take the public debt down the path of unsustainable growth. These have been the main causes of external crises in emerging countries, and although these conditions do not apply to Colombia they could develop at any time in a situation of closure of the international capital markets. In synthesis, holding international reserves has “opportunity costs” and benefits that increase directly with the level of the international reserves; so, there has to be a level of reserves that equals, at the margin, the costs and benefits; this is known in economic literature as “the optimal level of international reserves.”

This idea has been formalized by Ben Bassat and Gottlieb (1992) and others as follows: let  $R^*$  be the “optimal level” of international reserves.  $R^*$  is the level of reserves that minimizes the expected cost function “ $C$ ”:

$$(1) \quad C = p C_0 + (1-p) R r$$

where  $p$  is the probability of external crisis,  $C_0$  is the cost of the external crisis, measured as a proportion of GDP, and  $r$  is the “opportunity cost” of maintaining international reserves<sup>21</sup>.

The probability of external crisis,  $p$ , depends on indicators of international liquidity (e.g. reserves /

imports or reserves / amortizations ratios), the solvency indicators (e.g. debt / exports ratio), the degree of opening of the economy and other macroeconomic and financial variables. A fall in the level of the reserves increases the probability of crisis, as the international liquidity indicators deteriorate. The formula used in the literature to represent this probability is:

$$(2) \quad p = e^f / (1 + e^f)$$

Where the exponent  $f$  can take, among others, the following two functional forms:

$$(3A) \quad f = \alpha_0 + \alpha_1 \ln(R / M) + \alpha_2 e^{D/X} + \alpha_3 m$$

$$(3B) \quad f = \alpha_0 + \alpha_1 \ln(R / A) + \alpha_2 e^{D/X} + \alpha_3 m + \alpha_4 \ln(\text{country-risk premium})$$

where  $R / M$  = ratio of international reserves to imports;  $R / A$  = ratio of international reserves ( $R$ ) and short-term amortization of the external debt ( $A$ );  $D / X$  = ratio of total external debt ( $D$ ) and total exports ( $X$ );  $m$  = the ratio of imports to GDP, and country risk premium = risk coefficient of emerging economies (EMBI+). The expected cost of a crisis is calculated on the basis of the estimate of the probability  $p$ .

The model that uses the expression (3A) was originally estimated in the Bank by Oliveros and

<sup>21</sup> This formula is standard in the literature (see the quotations in Ben Bassat and Gottlieb (1992)) and assumes that an external crisis results in exhaustion of the international reserves. Assuming that an opportunity cost,  $rR$ , is the same with or without crisis (that is that the reserves do not fall in a crisis), the specification of the total cost of maintaining reserves would change to  $C = p C_0 + r R$ . In this case, the optimal reserves could be *greater* than those estimated in this section, if the following conditions are met:  $p'(R) < 0$ ,  $p''(R) > 0$  y  $r / C_0 < r (1-p) / (C_0 - r R)$ . With the specifications used in this work, the estimated parameters and the relevant ranges of the variables, these conditions are met.

Varela (1994). In that specification the role of shocks to the balance-of-payments current account was given a privileged place in determining external crises.

The model with the expression (3B) emphasizes the idea that in a world with mobility of capital, external crises arise from shocks to the balance-of-payments capital account (see for example, Mulder and Bussiere, 1999; Greenspan, 1997; Guidotti, 1997). For this reason the equation used replaces the reserves / imports ratio with the reserve / external debt amortizations ratio. Also, the expression (3B) incorporates the term (country risk premium) to represent the possibility of crisis by “contagion.”

In its original estimate applied to Colombia in 1994, the model produced a result of US\$4.57 billion for the optimal reserves. This model was updated in 2002 with more recent information. However, some of the variables originally included in the model by the authors were found to be statistically insignificant; in particular, the reserves / import ratio as indicator of the country’s liquidity had lost its power to explain the optimal level of international reserves.

The many changes in the last 10 years explain why the model ceased to be relevant to the current situation. Clearly, the main one is that the Colombian economy is now more open to external capital than in the early 1990s. This opening has increased its external vulnerability to shocks from the capital account.

In a globalized world with the opening of the capital account, the indicators for measuring external vulnerability are those that take into account the total amount and service of the external debt. The ratio of international reserves to months of imports of goods services loses importance because it implicitly contains the idea that external crises occur because of trade flows, which was based on a world

with strong controls on capital inflows and outflows. This economic environment has disappeared in almost all countries, although the two most populated countries (China and India) maintain controls on capital movements.

In this context, the optimal reserve model was re-estimated, replacing this variable by reserves / amortizations as indicator of external liquidity, more in line with the current circumstances of the Colombian economy.

Table 19 presents the results obtained from these new estimates with the specification 3B. Each row of the table represents different costs of external crisis. As can be appreciated, the results are sensitive to the cost of the crisis. Assuming a loss of 100% of GDP - as in the model estimated in 1994 - the “optimal reserves” are over US\$18.00 billion. If the cost of the crisis were 10% of GDP, the optimal reserves would be US\$11.89 billion in 2003. Lastly, for the current level of reserves to be optimal, the cost of the crisis would have to be 6.5% of GDP.

The cost of a crisis is a difficult variable to quantify because such an episode is accompanied by falls in production and revenue, and by a sharp decrease in the country’s wealth. A reasonable range of the cost of the fall in production (not including the wealth effect) would be between 8% and 15% of real GDP<sup>23</sup>. In Colombia, the cost of the contraction in 1999 was 7.2%. Consequently, the current level of international reserves is adequate for covering the needs of a crisis such as the one that the country faced in that year.

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<sup>23</sup> Gupta et al. (2003) find that the loss of GDP due to an external crisis are in this range for a sample of 195 countries between 1980 and 1999.

These results are also sensitive to the “opportunity cost” of the reserves, which is used in the calculation. The cost used here is for each year, which on average from 1994 to 1997 was close to 5.0%. However, if this increased to 6.0%, for example, with a cost of the crisis of 10.0% of GDP, the optimal reserves would increase from US\$10.92 billion to US\$11.89 billion.

This analysis suggests that at present Colombia possesses a stock of international reserves that is very close to the optimal level calculated by the

model. However, as happens with any exercise of this nature, since its results are very sensitive to changes in the explanatory variables, precautions should be taken. The results are indicative of the optimal levels of international reserves but should be used with other criteria when the authorities take the final decisions on reserve policy. Other important indicators, which supplement these results, are those on the country’s external vulnerability over the next few years produced by the balance-of-payments projections and the comparison with other emerging countries.

TABLE 19  
CALCULATION OF “OPTIMAL” RESERVES  
IN 2003 AND 2004, WITH DIFFERENT CRISIS COSTS

| Cost of the crisis<br>(GDP %) | Optimal reserves (millions of dollars) |                      |                   |
|-------------------------------|--|----------------------|-------------------|
|                               | June 2003                              | December 2003<br>(*) | March 2004<br>(*) |
| 100.0                         | 18,088                                 | 20,431               | 20,649            |
| 40.0                          | 16,284                                 | 17,197               | 17,334            |
| 10.0                          | 11,885                                 | 12,322               | 12,448            |
| 5.5                           | 10,101                                 | 10,559               | 10,689            |
| 4.0                           | 9,222                                  | 9,696                | 9,831             |
| 1.0                           | 5,854                                  | 6,387                | 6,558             |

(\*) The estimates relate to the adjustment of the optimal reserves model shown in Tables R3.2 and R3.3 of Box 3.  
Source: Banco de la República.

BOX 3  
ECONOMETRIC ESTIMATE OF THE CRISIS PROBABILITY FUNCTION

The crisis probability model for equation (3B) of the text is as follows:

$$f = \alpha_0 + \alpha_1 \ln(R/A) + \alpha_2 e^{D/X} + \alpha_3 m + \alpha_4 \ln(\text{country-risk premium})$$

Where  $R/A$  is the ratio reserves (R) / short-term amortizations of the external debt (A),  $D/X$  is the ratio total external debt (D) / total exports (I),  $m$  is the ratio imports / GDP, and country risk premium is the risk coefficient of emerging economies (EMBI+).

This model is estimated with quarterly data for the period from 1994 to June 2003. The key results are presented in Table R3.1. Tables R3.2 and R3.3 show the results of the estimates to December 2003 and March 2004, respectively.



Because of the endogeneity of the variable reserve / amortizations ( $\ln(R / A)$ ), equation (3) was estimated using the least squares method in two stages, using the public expenditure logarithm / GDP and the country-risk premium of Colombia as instruments. The statistics of the diagnosis of the residuals of this regression do not evidence non-compliance with the usual assumptions.

A test was performed of autocorrelation, normality, heteroscedasticity and unit root on the residuals, and overidentification (instrumental variables) (Table R3.4).

TABLE R3.1  
ECONOMETRIC RESULTS OF THE MODEL OF CRISIS PROBABILITY FUNCTION  
JUNE, 2003

| Variable                           | DF | Estimate | Standard error | t     | Pr. greater<br>statistic<br>than t |
|------------------------------------|----|----------|----------------|-------|------------------------------------|
| Intercept                          | 1  | -8.32    | 1.109          | -7.50 | 0.0001                             |
| $\ln(R / A)$                       | 1  | -2.94    | 0.306          | -9.61 | 0.0001                             |
| $E D / x$                          | 1  | 7.32E-07 | 3.31E-07       | 2.30  | 0.0290                             |
| $\ln(\text{country risk premium})$ | 1  | 0.74     | 0.148          | 4.99  | 0.0001                             |
| M                                  | 1  | 11.71    | 2.968          | 3.95  | 0.0005                             |
| Dummy                              | 1  | -1.27    | 0.741          | -1.71 | 0.0973                             |

Source: Bank's own estimates, SGEE.

TABLE R3.2  
ECONOMETRIC RESULTS OF MODEL  
DECEMBER 2003

| Variable                           | Parameter |
|------------------------------------|-----------|
| C                                  | -8.20057  |
| $\text{LOG}(R / A)$                | -3.16584  |
| $\text{EXP}(D / X)$                | 2.985E-07 |
| $\ln(\text{country risk premium})$ | 0.68493   |
| M                                  | 15.05147  |

Source: Bank's own estimates, SGEE.

TABLE R3.3  
ECONOMETRIC RESULTS OF MODEL  
MARCH 2004

| Variable                           | Parameter |
|------------------------------------|-----------|
| C                                  | -7.96243  |
| $\text{LOG}(R / A)$                | -3.18939  |
| $\text{EXP}(D / X)$                | 3.217E-07 |
| $\ln(\text{country risk premium})$ | 0.62662   |
| M                                  | 16.24224  |

Source: Bank's own estimates, SGEE.

TABLE R3.4  
STATISTICAL ANALYSIS OF RESULTS

| Test                          | Statistical | Probability |
|-------------------------------|-------------|-------------|
| <b>Autocorrelation</b>        |             |             |
| Godfrey Rez. (7)              | 11,32       | 0,13        |
| <b>Normality</b>              |             |             |
| Shapiro-Wilk W                | 0,96        | 0,34        |
| <b>Heteroscedasticity</b>     |             |             |
| White                         | 13,75       | 0,54        |
| <b>Unit root</b>              |             |             |
| Dickey Fuller (AF) Rez. (1)   | (2,77)      | 0,01        |
| <b>Instrumental variables</b> |             |             |
| Basman                        | 0,01        | 0,93        |

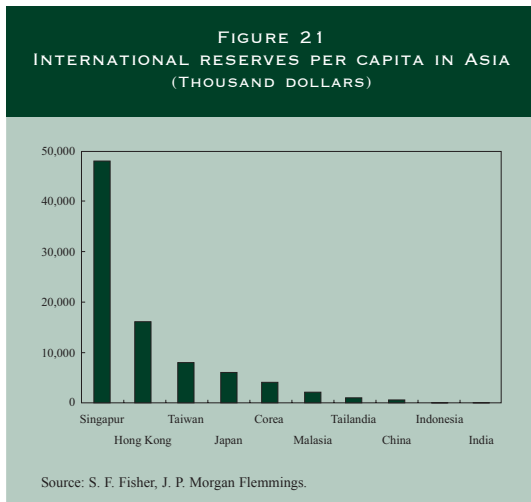
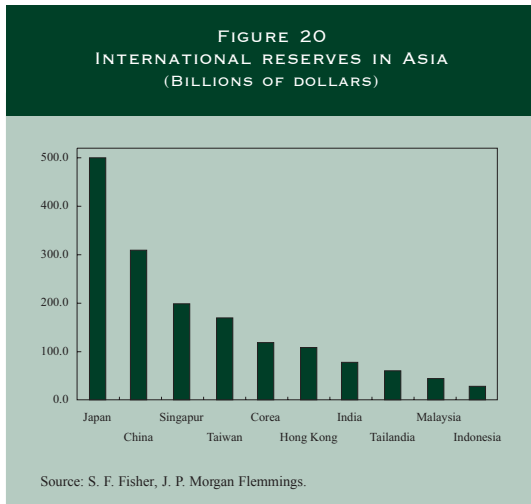
## 2. Indicators of external vulnerability and international comparisons

Figure 19 shows the trend in international reserves of four Asian countries that went through critical economic situations in 1997 and 1998. As the Figure shows, in recent years all countries have increased their level of international reserves. In the case of South Korea, the current stock of international reserves is approximately six times greater than before crisis of 1997 to 1998. Malaysia and Thailand have openly stated that they wish to

accumulate more reserves as market conditions permit.

Figure 20 shows the level of international reserves of the nine largest Asian countries by size of economy. This Figure uses the international reserves of the central banks in March this year in billions of dollars. Asian countries maintain international reserves of over US\$1.5 billion. Figure 21 shows, at the same date, the value per capita of these reserves. In some Asian countries these reserves are an important portion of individual wealth.





Colombia's international reserves are approximately US\$222 per capita, in contrast to several Asian countries whose reserves per capita run into several thousands of dollars.

The three most important indicators for evaluating a country's external vulnerability are: i) reserve / amortizations for current year; ii) reserve / service on total external debt; iii) reserve / (amortizations + deficit on current account).

The first is sufficient for countries that do not have a current-account deficit or an overvalued currency,

where the need for international liquidity is limited to amortizations of the public debt. The second is useful when the country needs to resort to the international market not only to finance the amortizations of total debt, but also to finance the interest on these obligations. The third indicator is especially relevant for measuring the external vulnerability of countries with amortizations and large interest payments, with a current-account deficit, which want, in the case of a possible closure of international markets, to avoid a sudden rapid adjustment of the current account through the recessive effects generated by an excessive uncontrolled devaluation.

International markets pay close attention to each country's characteristics and the value of the indicators. When the relevant indicator is less than 1.0, a red light comes on to warn about the external vulnerability of the economy under study for investment.

Table 20 shows for Colombia a projection of the indicators described in the 2003 to 2010 period. As mentioned in the introduction, for the next few years the "amortization indicators" for the external debt are expected to be greater than 1.0, fluctuating between 1.01 and 1.22. The "service on the total debt" and "adequate liquidity position" indicators are calculated on values of less than 1.0. For example, the reserve / (amortizations + current-account deficit) indicator is below 1.0 in all years between 2003 and 2010. The reserve / total debt service indicator has a value of 0.89 to 2004 and around this value in the next three years.

Table 21 and Figure 22 give a comparison of some vulnerability indicators for the countries of the region, including Colombia for 2003. Although in the indicator reserves / imports and reserves / M3, Co-

**TABLE 20**  
**INDICATORS OF COLOMBIA'S INTERNATIONAL RESERVES**

|   | 1999        | 2000        | 2001        | 2002        | 2003        | 2004        |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Balances</b>   |             |             |             |             |             |             |
| Net international reserves (NIR). according to IMF (millions of dollars)  | 8,113       | 8,800       | 9,982       | 10,507      | 10,524      | 11,035      |
| <b>Indicators</b>   |             |             |             |             |             |             |
| A, Indicator of external debt amortizations                               |             |             |             |             |             |             |
| Amortizations external debt (Millions of dollars)                         | 9,014       | 8,667       | 7,893       | 10,072      | 10,411      | 8,627       |
| Net reserves / amortizations external debt current year                   | 0.90        | 1.02        | 1.26        | 1.04        | 1.01        | 1.28        |
| Net reserves / amortizations external debt following year                 | 0.94        | 1.11        | 0.99        | 1.01        | 1.22        | 1.19        |
| B, Net reserves / amortizations external debt following year              |             |             |             |             |             |             |
| NIR/ (debt service current year)  | 0.70        | 0.78        | 0.95        | 0.83        | 0.86        | 0.92        |
| NIR/ (debt service following year)  | 0.72        | 0.84        | 0.79        | 0.86        | 0.88        | 0.86        |
| NIR/ (amortization of debt current year + c, a, deficit current year)     | 0.97        | 1.09        | 1.09        | 0.90        | 0.95        | 0.95        |
| NIR/ (amortization of debt following year + c, a, deficit following year) | 1.01        | 0.96        | 0.85        | 0.95        | 0.90        | 0.89        |
|   | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> |
| <b>Balances</b>   |             |             |             |             |             |             |
| Net international reserves (NIR). according to IMF (millions of dollars)  | 11,212      | 11,445      | 11,768      | 12,109      | 12,465      | 12,832      |
| <b>Indicators</b>   |             |             |             |             |             |             |
| A, Indicator of external debt amortizations                               |             |             |             |             |             |             |
| Amortizations external debt (Millions of dollars)                         | 9,273       | 9,547       | 9,853       | 10,720      | 9,760       | 10,614      |
| Net reserves / amortizations external debt current year                   | 1.21        | 1.20        | 1.19        | 1.13        | 1.28        | 1.21        |
| Net reserves / amortizations external debt following year                 | 1.17        | 1.16        | 1.10        | 1.24        | 1.17        | n.a.        |
| B, Net reserves / amortizations external debt following year              |             |             |             |             |             |             |
| NIR/ (debt service current year)  | 0.87        | 0.87        | 0.87        | 0.84        | 0.88        | 0.82        |
| NIR/ (debt service following year)  | 0.85        | 0.85        | 0.82        | 0.86        | 0.80        | n.a.        |
| NIR/ (amortization of debt current year + c, a, deficit current year)     | 0.90        | 0.93        | 0.91        | 0.89        | 0.94        | 0.91        |
| NIR/ (amortization of debt following year + c, a, deficit following year) | 0.91        | 0.89        | 0.87        | 0.91        | 0.88        | n.a.        |

n.a. not available.

Source: Banco de la República, SGEE, Programming and Inflation Department.

**TABLE 21**  
**INDICATORS OF PAYMENT CAPACITY OF INTERNATIONAL RESERVES:**  
**AT JANUARY 2004**

|   | Brazil | Chile | Colombia | Mexico | Peru |
|---|--------|-------|----------|--------|------|
| NIR / M1  | 3.7    | 8.0   | 8.0      | 3.5    | 11.0 |
| NIR / M3  | 8.8    | 41.3  | 37.4     | 18.2   | n.a. |
| NIR / possible capital outflows in next 12 months                                     | 1.4    | 13.0  | 3.8      | 6.8    | 3.9  |
| Gross reserve / Amortization projections external debt (public and private) in 1 year | 0.9    | 2.2   | 1.2      | 1.2    | 2.0  |

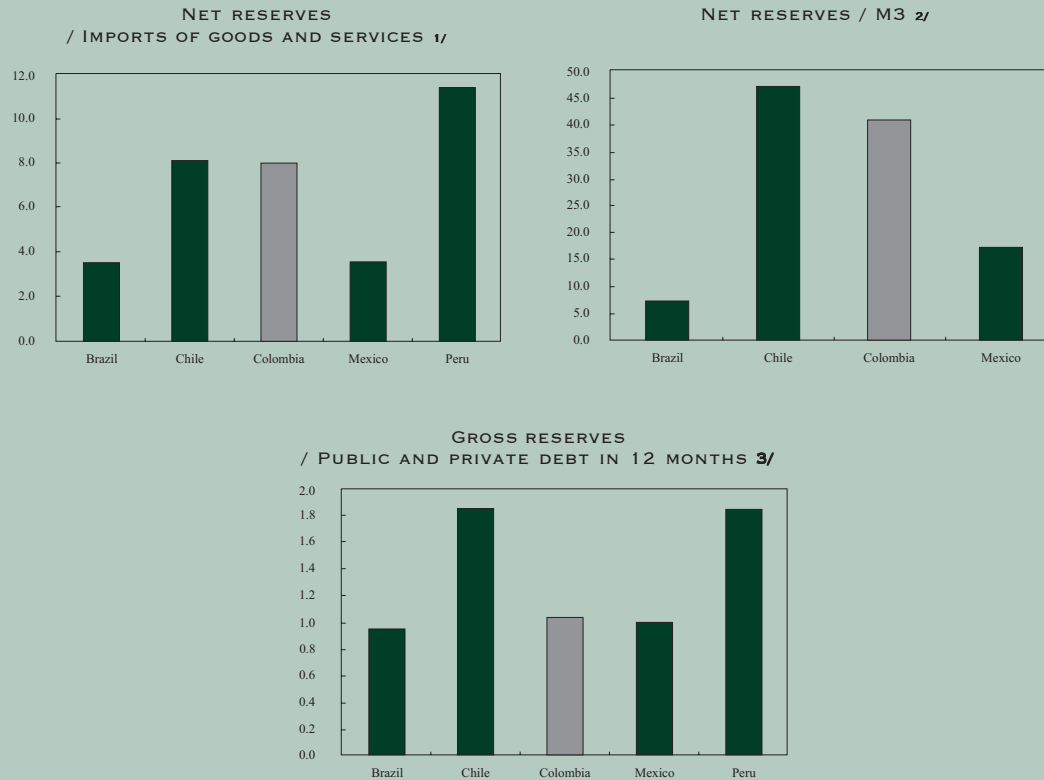
M1 = cash / deposits on current account.

M3 = monetary aggregate + M1 - liabilities subject to reserve requirements

n.a. not available.

Source: Banco de la República and projections by Goldman Sachs, J. P. Morgan .

FIGURE 22  
INDICATORS OF INTERNATIONAL RESERVES IN SELECTED LATIN AMERICAN COUNTRIES  
(BILLIONS OF DOLLARS)



1/ From July 2002 for Brazil, the Central Bank of Brazil's definition of net reserves has been used which includes reciprocal credit balances and IMF credits as short-term liabilities. The import data for all countries relates to June.

2/ The indicator for Brazil (August). The series was revised and refined in July 2001. It includes: money in circulation - demand deposits in commercial banks - special remunerated deposits - savings deposits - instruments issued by financial institutions - Investment funds - short-term fixed-income funds. In Chile (September): cash - current account deposits of non-financial private sector net of swap - demand deposits other than current accounts - private sector time deposits - time saving deposits including housing. In Mexico (August): notes and coins held by the public - checking accounts in national currency in domestic banks - deposits on current account in national currency in domestic banks - domestic deposits of banks resident in the country in national currency - deposits of resident foreign banks in national currency. From January 2002 the series was revised to include the following additional components: public and private securities held by residents and retirement funds and federal government securities held by residents abroad.

3/ The projections are for 2002 and relate to the average amortizations in one year of the public and private external debt in the next 12 months, calculated by Goldman Sachs & Co (Latin American Economic Analyst, June 2003) and Chase J. P. Morgan (World Financial Markets, July 2003 and Emerging Markets Outlook, July 2003), with the exception of Colombia where the SGEE projections were used. For Peru only the projections of J. P. Morgan Chase were used due to an inconsistency in those of Goldman Sachs & Co. Source: Central banks and Datastream.

Colombia appears in a good position, for the most important and most used of the three Colombia has a significantly lower level than that of Chile and Peru, similar to Mexico (whose indicator loses relevance because of the large share of the maquiladora system in the production system) and only higher than Brazil, which has a primary fiscal surplus of around 4.0% of GDP and a public debt level as percentage of GDP higher than Colombia.

Comparing the Latin American indicators with those of Asia, most of the latter have reserve levels relative to amortization of one-year public and private debt which are higher than Colombia's (Table 22).

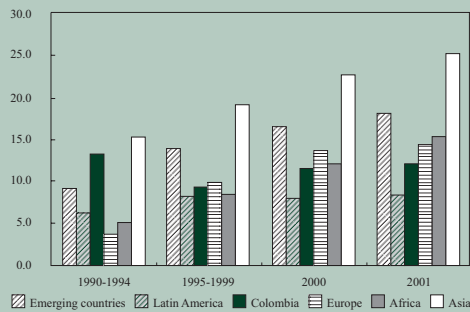
Figure 23 shows the reserve / GDP ratio for Colombia and some regions of the world in years considered important because they are recent and because of the diversity of external crises they

TABLE 22  
INDICATORS OF PAYMENT CAPACITY OF INTERNATIONAL RESERVES, ASIAN COUNTRIES  
(BILLIONS OF DOLLARS)

|  | China | India | Indonesia | Malaysia | Philippines | Corea | Tailandia |
|--|-------|-------|-----------|----------|-------------|-------|-----------|
| Reserves 2003 1/   | 430,4 | 105,0 | 34,5      | 45,0     | 12,8        | 151,4 | 40,1      |
| Short-term debt 2004 1/  | 51,2  | 13,4  | 26,4      | 10,7     | 8,3         | 63,0  | 13,4      |
| Amortizations medium<br>and long-term debt 2/  | 15,0  | 5,7   | 10,5      | 6,9      | 5,8         | 11,2  | 7,7       |
| Gross reserves / projections amortizations<br>external sector debt public and private<br>in 1 year 2003 2/ | 6,5   | 5,5   | 0,9       | 2,6      | 0,9         | 2,0   | 1,9       |

1/ Estimates J. P. Morgan Chase. World Financial Markets, abril 2003.  
2/ Estimates J. P. Morgan Chase. Emerging Markets Outlook, mayo 2003.  
Source: J. P. Morgan Chase.

GRÁFICO FIGURE 23  
RESERVES / EMERGING COUNTRIES GDP,  
1990-2001  
(PERCENTAGE)



Source: FMI.

represent. According to this Figure, in the first half of the 1990s, Colombia's reserve / GDP ratio was higher than the average for emerging countries and for Latin America, and similar to that of Asia. In 2001, however, the same ratio was lower than the average for emerging countries, Asia, Africa and Europe. It was only higher than the set of Latin America, which is not a reason for complacency because of the weight in the statistics of Argentina, a country in crisis, and another large country Brazil, viewed with concern by international markets. In other words, the countries have attempted to

accumulate reserves in recent years, increasing their reserve / GDP ratio. Colombia does not stand out in this comparison.

Some indicators of external vulnerability, such as reserves / debt service and reserves / (amortizations + current-account deficit) are currently below 1.0 (0.86 and 0.89, respectively). This could cause unease among domestic and foreign investors since in the future the country will have to continue paying large amounts of interest on the external debt. Also, it is fundamental that developing economies always have the capacity to finance moderate current-account deficits, so that investment can grow above domestic savings and thus promote growth.

In conclusion, the analysis using these two criteria to evaluate the level of the country's international reserves shows that, although there is some margin on the side of the external vulnerability indicator which takes into account only the debt amortizations, it is not substantial. Also, the other indicators are currently below 1.0 and the results of the model indicate that Colombia, with its current level of reserves, could face an external crisis with a cost of 6.0% of GDP. If there is a margin for rundown of

reserves, it is small, and in no case should exceed US\$500 million because of the risk that the country would have insufficient reserves to respond to a medium-sized external crisis.

Taking into account these criteria on the current level of the country's international reserves, the Board considered that the use of US\$500 million for payment of external debt was viable. In fact, these funds have not been used for this purpose because the National Government deferred the operation.

From the time of this analysis (November 2003) to date, the country's external situation has changed considerably. The political and economic events in the United States, together with the global recovery, have resulted in a large flow of dollars into our country which has been reflected, among other things, in a substantial reduction in the country-risk premium and a tendency to appreciation of the exchange rate. This new external environment does not change the conclusions of the analysis. There is still the risk that this situation could reverse and, instead of growing capital flows, external markets could close in the future. These abrupt changes frequently occur after periods of large external capital flows. In this respect, the conclusion that the country requires a level of reserves that is sufficient to respond to a medium-sized external crisis is still valid.

A results of a re-estimate of the optimal reserves model, updated to December 2003 and March 2000 for the relevant variables, show that the country requires a higher level of optimal reserves than that estimated in the document of November 2003, with data to June of that year (Table 19). This result is explained, among other factors, by the substantial reduction in the opportunity cost of holding the international reserves. This cost, which was 4.1% in June 2003, is now 3.8% due to the lower cost of external borrowing for the country.

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## B. MANAGEMENT OF THE INTERNATIONAL RESERVES IN 2003

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The country's net international reserves totaled US\$10.92 billion in December 2003, an increase of US\$75.1 million from the balance in December 2002<sup>23</sup>. The main component of the international reserves is the investment portfolio of US\$9.77 billion, 89.5% of the total. The remaining balance consists of: i) the reserve position in the IMF and the Latin American Reserve Fund (FLAR), US\$738.0 million; ii) SDRs, US\$172.5 million; iii) gold, and Andean pesos and the positive balances of international agreements for US\$162.4 million; and iv) demand deposits and cash on hand of US\$77.9 million. Also, in December 2003 external short-term liabilities totaled US\$5.8 million (Table 23).

The established criteria for management of the international reserves are, in order of importance, *security*, *liquidity* and *profitability*. In line with these criteria and in order to ensure payment of the country's external obligations, the reserves are invested in financial assets with a broad secondary market, while part of them remain as working capital to guarantee immediate availability.

Criteria have also been established for the composition of the currencies in which the international reserves are invested; until last February, this was 85% US dollars, 12% euros and 3% yen. This distribution was recently changed, based on studies of the probable trend of the euro

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<sup>23</sup> Equal to total international reserves, or gross reserves, less the Bank's short-term external liabilities. The latter consist of demand obligations in foreign-currency with non-resident agents.

**TABLE 23**  
**MAIN COMPONENTS OF THE INTERNATIONAL RESERVES**  
(MILLONES DE DÓLARES)

| Description                             | December<br>2002 | Share<br>% | June<br>2003 | Share<br>% | December<br>2003 | Share<br>% |
|---|------------------|------------|--------------|------------|------------------|------------|
| <b>Cash</b>                             | 38.8             | 0.4        | 63.6         | 0.6        | 77.9             | 0.7        |
| Cash on hand                            | 36.4             | 0.3        | 63.0         | 0.6        | 77.2             | 0.7        |
| Demand deposits                         | 2.4              | 0.0        | 0.6          | 0.0        | 0.7              | 0.0        |
| <b>Investments</b>                      | 9,825.7          | 90.6       | 9,443.8      | 89.9       | 9,770.5          | 89.5       |
| Direct portfolio                        | 4,806.3          | 44.3       | 4,297.7      | 40.9       | 4,519.3          | 41.4       |
| Portfolio in administration             | 5,019.5          | 46.3       | 5,146.1      | 49.0       | 5,251.2          | 48.1       |
| <b>Gold</b>                             | 112.1            | 1.0        | 112.8        | 1.1        | 136.4            | 1.2        |
| On hand                                 | 0.0              | 0.0        | 0.0          | 0.0        | 0.0              | 0.0        |
| In custody                              | 112.1            | 1.0        | 112.8        | 1.1        | 136.4            | 1.2        |
| <b>International Monetary Fund</b>      | 542.0            | 5.0        | 560.6        | 5.3        | 597.2            | 5.5        |
| SDRs                                    | 154.8            | 1.4        | 160.2        | 1.5        | 172.5            | 1.6        |
| Reserve position                        | 387.1            | 3.6        | 400.4        | 3.8        | 424.7            | 3.9        |
| <b>Latin American Reserve Fund</b>      | 323.8            | 3.0        | 323.8        | 3.1        | 333.3            | 3.1        |
| Contributions                           | 303.8            | 2.8        | 303.8        | 2.9        | 313.3            | 2.9        |
| Andean pesos                            | 20.0             | 0.2        | 20.0         | 0.2        | 20.0             | 0.2        |
| <b>International agreements</b>         | 1.7              | 0.0        | 0.3          | 0.0        | 6.0              | 0.1        |
| <b>Total gross reserves</b>             | 10,844.1         | 100.0      | 10,504.8     | 100.0      | 10,921.4         | 100.1      |
| <b>Short-term liabilities</b>           | 3.6              | 0.0        | 5.0          | 0.0        | 5.8              | 0.1        |
| International agreements                | 0.0              | 0.0        | 0.0          | 0.0        | 0.0              | 0.0        |
| Foreign banks                           | 0.0              | 0.0        | 0.0          | 0.0        | 0.0              | 0.0        |
| Latin American Reserve Fund (Flar)      | 0.0              | 0.0        | 0.0          | 0.0        | 0.0              | 0.0        |
| Securities payable purchase investments | 0.0              | 0.0        | 0.0          | 0.0        | 0.0              | 0.0        |
| Interest accrued on liabilities         | 3.6              | 0.0        | 5.0          | 0.0        | 5.8              | 0.1        |
| <b>Total net reserves</b>               | 10,840.5         | 100.0      | 10,499.8     | 100.0      | 10,915.6         | 100.0      |

Source: Banco de la República.

and the yen against the dollar, within the existing limits based on the criteria for the management of the international reserves (see Annex).

Under these guidelines, a proportion of the investment portfolio of the international reserves is managed by external financial institutions contracted after a rigorous selection system, which includes their experience in the business, the size

of the funds they manage, and the quality of their management capacity and risk control. As mentioned in previous reports, these institutions have improved the return on the reserves through specialized management<sup>24</sup>.

<sup>24</sup> Several central banks, including those of Brazil and Chile, used similar schemes to delegate the management of a portion of their external assets to first class institutions to benefit from their high degree of specialization.



Of the total investment portfolio, Banco de la República managed directly US\$4.52 billion (46.3% of the total investment tranche), including working capital of US\$781.3 million. The remaining 53.7% (US\$5.25 billion) was managed by the specialized firms Barclays Global Investors, J. P. Morgan Investment Management Inc., Goldman Sachs Asset Management and Morgan Stanley Investments L. P.

In 2003, the reference index used to evaluate the portion<sup>25</sup> managed by Barclays Global Investors and J.P. Morgan Investment Management Inc. recorded a return of 6.80%, against 7.98% on the portion managed by Barclays Global Investors, and 6.88% on the portion managed by J.P. Morgan Investment Management. The reference index<sup>26</sup> for the portfolio managed by Goldman Sachs Asset Management and Morgan Stanley Investment LP had a return of 1.69% compared with 1.98% for the former and 1.47% for the latter. The portion of the portfolio managed directly by Banco de la República, excluding working capital, produced a return of 3.98% in 2003, against the 4.01% obtained by the reference index used to evaluate the management of this portion<sup>27</sup>. The return on working capital was 1.08%.

The credit risk for the total investment portfolio is concentrated in the sovereign sector, including short and long terms, with 64.1% of the portfolio. The rest is distributed among other sectors: 19.6% in the banking sector, 10.6% in corporate and 5.7% in supranational. At December 2003, the distribution of this risk according to the ratings assigned by the specialized agencies was as follows: 41.9% “P1”, 49.1% “AAA”, 6.1% “AA”, 0.5% “A” and 2.4% in the Bank for International Settlements (BIS)<sup>28</sup>. The distribution of credit risk reflects the security criteria under which the international reserves are managed.

The net return on the international reserves investment portfolio obtained by Banco de la República and by the delegated managers totaled US\$464.3 million, of which US\$217.4 million came from income accruals and US\$246.9 million from gains from the revaluation of the international reserves to market prices. The gains on revaluation originated from the trend in the euro, yen and the SDRs against the dollar, US\$262.1 million, and from the revaluation of the investments in bonds and gold of US\$15.2 million<sup>29</sup>.

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<sup>25</sup> Known as “global mandate.”

<sup>26</sup> Known as “rotation mandate” in the United States.

<sup>27</sup> The reference portfolios used to measure the performance of external managers are composed of assets denominated in US dollars, euros and yen. These assets are invested in a combination of money-market instruments and government bonds from one to five years. At December 31, 2003 the average duration for the total

index of the investment tranche was 1.18 years and the currency composition was 86% US dollars, 11% euros and 3% yen.

<sup>28</sup> Standard & Poor’s, Moody’s and Fitch ratings.

<sup>29</sup> The Good Delivery gold price (99.5% purity) on the international market (FIX A. M. London) rose from US\$342.75 per ounce on December, 31, 2002 to US\$417.25 per ounce in December 31, 2003.

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**ANNEX**  
**QUESTIONS AND ANSWERS ON THE INTERNATIONAL RESERVES**

What are the international reserves?

The international reserves are the assets held abroad under the control of the monetary authorities, which can immediately sell them to directly finance balance-of-payments deficits, to indirectly regulate the magnitude of these imbalances through intervention in the exchange markets to change the exchange rate, and for other purposes. For an external asset to be considered a reserve asset, the authorities have to have direct and effective control over it, and it must be immediately available to correct, directly or indirectly, an imbalance in the balance of payments<sup>1</sup>.

What are the objectives of holding the international reserves?

The Bank's main objectives in holding the international reserves are to:

1. Protect the economy against possible external shocks that could affect the current account or capital flows.
2. Invest these reserves from the point of view of a central bank, minimizing risks of loss and assuring timely availability of international liquidity when needed.
3. Guarantee the efficient provision of international liquidity when the conditions require it using part of the reserves<sup>2</sup>.

What is the adequate level of reserves?

The adequate level of reserves is the level at which the costs of holding external assets equal the benefits. The main benefits of holding international reserves are to cushion external shocks by reducing the negative economic effects on activity and the income of the population through adequate adjustments of the exchange rate, to stabilize the productive base by guaranteeing payments of external obligations in the short term, and to guarantee external loans. The higher the level of reserves in an economy, the higher the associated benefits; and the lower the reserves, the higher the costs associated with the adjustments. Holding reserves implies opportunity costs in terms of their better alternative use, such as in consumption, investment, or paying the external debt, as well as the cost associated with not having international reserves and access to their benefits.

The "adequate" level can be determined from the relative size of the international reserves in relation to the external debt, the amortizations profile, imports or the monetary aggregates. The reference indicators most used are reserves / amortizations in the next year equal to 1.0 and debt balances / reserves not exceeding 3.0 (Table A.1).

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<sup>1</sup> *Balance of Payments Manual, Version V, IMF (1993).*

<sup>2</sup> *Report of the Board of Directors to the Congress of the Republic, March 2003 pp. 50-51.*

TABLE A.1  
INDICATORS OF PAYMENT CAPACITY OF NET INTERNATIONAL RESERVES  
AT JANUARY 2004

|  | Nov-03 | Dec-03 | Jan-04 |
|--|--------|--------|--------|
| Net reserves/ 6-month average of imports of goods and services                                       | 8.0    | 8.0    | 8.3    |
| Net reserves / M3  | 38.8   | 36.7   | 37.4   |
| Net reserve / Predetermined foreign currency outflows of the monetary authorities in next 12 months. | 3.5    | 3.7    | 3.8    |
| Net reserves / amortizations in one year public and private debt                                     | 2.2    | 2.2    | 2.2    |

Source: Banco de la República.

### How to compare Colombia's level of reserves with other Latin American countries and emerging countries?

The payment capacity indicators of the international reserves show that Colombia is above Mexico and Brazil and below Chile and Peru (see Table 21 of Chapter IV).

A comparison of the Latin American and Asian indicators shows that most of the latter have reserve levels relative to amortization public and private debt at one year above those of Colombia (see Table 22 of Chapter IV).

### What are the characteristics of a reserve asset?

The reserve assets must comply with the following characteristics:

- ✘ First and foremost, they must be liquid marketable assets, which the monetary authorities can use immediately
- ✘ If the authorities are going to use the assets for balance-of-payments purposes or to intervene in the exchange market, the reserve assets must be assets in foreign currency.
- ✘ Also, to be liquid, the reserve assets must be held in convertible foreign currencies, which can be freely used in international transactions.
- ✘ The external assets relate to the claims of the monetary authorities on non-residents.
- ✘ The reserve assets must really exist.
- ✘ Pledged assets should not necessarily be excluded from the reserve assets <sup>3</sup>.

<sup>3</sup> *Balance of Payments Manual*, Version V, IMF (1993).

What types of assets can be classified as reserve assets?

Reserve assets can be classified into the following types:

- ✘ Monetary gold
- ✘ IMF Special drawing rights
- ✘ Financial claims of monetary authorities on non-residents in money form, bank deposits, public securities, other bonds and notes, money market instruments, central bank equity<sup>4</sup>.
- ✘ Non-marketable assets denominated in foreign currency linked to the agreements between central banks or governments in freely convertible currencies.

What criteria define the assets where the reserves are invested?

The Reserve Committee defines the reserve investment policies based on the criteria of security, liquidity and profitability, as defined by Law 31 of 1992. As a result, reserve investments are limited to fixed-income assets and currencies of the industrialized countries, with the highest credit quality and a broad secondary market.

What is a reference index?

The reference index is a theoretical portfolio that defines the neutral risk profile of the investor. The Reserve Committee has defined as risk parameter that in no year should negative returns occur on the reserve investments, with a confidence level of over 90%, and that the component assets of the index must be the most liquid instruments on international financial markets. In addition to investing in the instruments that comprise the reference index, the portfolio managers may invest in other eligible assets (in limited and pre-defined quantities) which explains why their returns differ from the return of their reference indexes.

What is the reserve index?

The reference index only applies to the investment portfolio of the international reserves (excluding working capital) (Table A.2).

This general index consists of four subindexes that measure the performance of the portfolios into which the investment portfolio is divided. These subindexes are given in Table A.3.

The reserve investments are divided into four types of mandate, with the objective of diversifying investments and benefiting from the strengths that the external firms offer in portfolio management. The objective of the indexed internal mandate is to provide immediate and intermediate liquidity of the reserves; so, a substantial portion is held in investments on the US money market. The global mandate seeks to diversify reserve investments through strategies based on the fundamentals

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<sup>4</sup> *Ibidem.*

TABLE A.2  
REFERENCE INDEX FOR INVESTMENT PORTFOLIO OF INTERNATIONAL RESERVES  
(AT FEBRUARY 27, 2004)

| Currency | Associated index                           | Total (%) |
|----------|--|-----------|
| Dollar   | MoneyNet First Tier Institutional          | 44.6      |
|          | SSB Treasury notes 1 to 3 years            | 40.3      |
|          | <b>Total market</b>                        | 85.0      |
| Euro     | SSB Bonds German government 1 to 3 years   | 5.0       |
|          | SSB Bonds German government 1 to 5 years   | 7.0       |
|          | <b>Total market</b>                        | 12.0      |
| Yen      | SSB Bonds Japanese government 1 to 3 years | 1.2       |
|          | SSB Bonds Japanese government 1 to 5 years | 1.8       |
|          | <b>Total market</b>                        | 3.1       |

Source: Banco de la República.

TABLE A.3  
SUBINDEXES  
(AT FEBRUARY 27, 2004)

| Currency | Associated index                           | Indexed | Non-indexed<br>internal | Global | Rotation |
|----------|--|---------|-------------------------|--------|----------|
|          |  |         |                         |        | US       |
| Dollar   | MoneyNet First Tier Institutional          | 64.0    | 33.0                    | 40.0   | 21.0     |
|          | SSB Treasury notes 1 to 3 years            | 21.0    | 52.0                    | 31.0   | 79.0     |
|          | <b>Total market</b>                        | 85.0    | 85.0                    | 71.0   | 100.0    |
| Euro     | SSB Bonds German government 1 to 3 years   | 12.0    | 0.0                     | 0.0    | 0.0      |
|          | SSB Bonds German government 1 to 5 years   | 0.0     | 12.0                    | 23.0   | 0.0      |
|          | <b>Total market</b>                        | 12.0    | 12.0                    | 23.0   | 0.0      |
| Yen      | SSB Bonds Japanese government 1 to 3 years | 3.0     | 0.0                     | 0.0    | 0.0      |
|          | SSB Bonds Japanese government 1 to 5 years | 0.0     | 3.0                     | 6.0    | 0.0      |
|          | <b>Total market</b>                        | 3.0     | 3.0                     | 6.0    | 0.0      |

Source: Banco de la República.

of the economy, and on the active management of foreign currencies. The rotation mandate of the United States aims for the highest return on fixed-income investments in the world's most developed capital market: the US market. The non-indexed internal mandate is a combination of the global and rotation mandates.

What is the liquidity policy in the management of the international reserves?

In 2001 and part of 2002, the Bank revised its reserve investment policy which included the revaluation of the liquidity policies. In the first stage, the liquidity requirements of the reserves were analyzed with the objective of establishing the probability of use of the reserves in specific periods of time. The study defined three clearly measurable tranches, whose amount is established by the probability of use of funds in different periods of time with a high confidence level. The tranches are:

- ✘ Working capital covers immediate liquidity needs whose reference size, at present, is a multiplier of the amount that the Bank auctions in options to rundown the reserves, which fluctuates between two and four of these auctions.
- ✘ An indexed tranche defined as the intermediate liquidity tranche. Its amount is determined by the historical rundown of the gross reserves in one-year periods, with a 99% confidence level.
- ✘ A non-indexed tranche composed of funds that have less than 1% probability of being used in a one-year time horizon.

The return on an investment is the compensation for the risk to which the investor is exposed by holding the asset. These risks include the liquidity of the asset. So, investment in less liquid assets has a higher expected rate of return than more liquid assets. Separating the reserve portfolio into liquidity tranches, the first tranche has the lowest return and the last has a higher average return.

What is the reason for the exchange composition?

The foreign exchange composition of the reserves meets the objective established in Law 31 of 1992 of facilitating the country's foreign payments. The foreign exchange composition of the reserve investment portfolio is in proportion to the payments of the Nation's balance of payments, which at January 31, 2004 was 85% in US dollars, 12% in euros and 3% in yen. The other freely convertible reserve currencies used for transactions have been added to those described previously since their amount is very small.

Why not invest more in euros?

The weights that determine the percentage of a currency are given by the balance-of-payments outlays. However, the managers are free to invest a certain percentage in freely convertible currencies depending on their investment strategies. These currencies are: Australian dollar, Canadian dollar, New Zealand dollar, Swiss franc, pound sterling, Swedish crown, Danish crown and Norwegian crown.

What would have happened if the reserves had been invested in euros?

Drastic changes in the foreign exchange composition would mean taking excessive risks in relation to the neutral position derived from the balance-of-payments outlays which could result in a lower real capacity to protect the economy against possible external shocks that affect the current account or capital flows.

In this context, concentration of the international reserves in euros and gold would expose them to very significant risks. Purchasing a unit of euro, outside the neutral position, would run the risk of losing about 14.85% FOOTNOTE 5 in one year on the quantity of euros acquired, because financial variables cannot be predicted with certainty.

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<sup>5</sup> With a 95% confidence interval

In fact, if the investment criterion had been, erroneously from the point of view of a central bank, to concentrate reserve investments exclusively in euros or gold without reflecting the balance-of-payments outlays, the return in terms of US dollars – which are the accounting unit of the reserves - in the last five years would have been approximately as shown in Table A.4.

TABLE A.4  
RETURN LAST FOUR YEARS

| Year               | Revaluation     |                 | Return investment<br>tranche of<br>internacional reserves |
|--------------------|-----------------|-----------------|---|
|                    | Euro vs. dollar | Gold vs. dollar |   |
| 1999               | (13.8)          | (0.1)           | 0.8   |
| 2000               | (6.3)           | (5.5)           | 6.6   |
| 2001               | (5.6)           | 2.5             | 5.5   |
| 2002               | 18.0            | 24.8            | 7.9   |
| 2003               | 20.2            | 21.7            | 4.1   |
| <b>Accumulated</b> | 8.1             | 47.0            | 27.3  |

Source: Banco de la República.

Clearly, although 2002 was favorable for a certain type of investments against the dollar, the same cannot be said of their past record. In the aggregate, the reserve investments - which diversify investments in both foreign exchange composition and in types of assets - have recently earned higher returns than if they had been concentrated in a single currency or asset. Moreover, despite the studies published on the strengthening of the dollar in 2001, the euro strengthened only in 2002, whereas between 1999 and 2001 it consistently weakened. Other studies in the economic literature mentioned the reversal of a strengthening trend of the euro, mainly based on the weakness of the European economy.

What is the foreign exchange composition of reserve portfolios around the world?

The determination of the foreign exchange composition of the reserves is not simply a caprice of the Bank but is a broadly established policy in most central banks. Due to the fundamental role of the US dollar as a means of exchange, the world trend is that the largest portion of international reserves is denominated in that currency, a trend that has been for strengthening in recent years. Based on the latest IMF report, the currency composition of international reserves of all countries is shown in Table A.5.

Gold also has lost importance as a reserve asset, as evidenced in the decline of the percentage of these investments in the reserves (Table A.6).

What are the return reserves?

Table A.7 shows the return on the reserves since 1995 and the return on the risk-free rate in the United States for the same periods.

This return does not take into account the returns on reserve assets, such as gold, Latin American Reserve Fund (FLAR) and the IMF position.



TABLE A.5  
FOREIGN EXCHANGE COMPOSITION OF RESERVES  
(PERCENTAGE ON TOTAL)

|                         | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| <b>US dollar</b>        | 56.6 | 56.5 | 56.9 | 60.2 | 62.2 | 65.7 | 67.9 | 67.5 | 67.5 | 64.5 |
| <b>Japanese yen</b>     | 7.7  | 7.9  | 6.8  | 6.0  | 5.2  | 5.4  | 5.5  | 5.2  | 4.8  | 4.5  |
| <b>Pound sterling</b>   | 3.0  | 3.3  | 3.2  | 3.4  | 3.6  | 3.9  | 4.0  | 3.8  | 4.0  | 4.4  |
| <b>Swiss franc</b>      | 1.1  | 0.9  | 0.8  | 0.8  | 0.7  | 0.7  | 0.6  | 0.7  | 0.6  | 0.7  |
| <b>Euro (*)</b>         | 24.9 | 24.8 | 23.2 | 21.1 | 19.6 | 15.0 | 12.7 | 15.9 | 16.4 | 18.7 |
| <b>Other currencies</b> | 6.8  | 6.6  | 9.2  | 8.6  | 8.7  | 9.3  | 9.3  | 6.9  | 6.6  | 7.3  |

(\*) Before 1999 the currencies that now comprise the euro are combined.  
Source: Banco de la República.

TABLE A.6  
GOLD AS PERCENTAGE OF THE RESERVES

| 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|------|------|------|------|------|------|------|
| 16.9 | 13.1 | 13.7 | 13.0 | 11.4 | 10.8 | 11.3 |

Source: Banco de la República.

TABLE A.7  
RETURN ON RESERVES AND US RISK-FREE RATE,  
1995-2003

| Year                     | Without<br>WC | With<br>WC | 3-month US<br>Treasury bills |
|--------------------------|---------------|------------|------------------------------|
| <b>1995</b>              | 11.2          | 10.9       | 6.0                          |
| <b>1996</b>              | 2.4           | 2.6        | 5.3                          |
| <b>1997</b>              | 2.2           | 2.5        | 5.3                          |
| <b>1998</b>              | 9.0           | 8.7        | 5.2                          |
| <b>1999</b>              | 0.3           | 0.8        | 4.9                          |
| <b>2000</b>              | 6.4           | 6.6        | 6.2                          |
| <b>2001</b>              | 5.5           | 5.5        | 4.4                          |
| <b>2002</b>              | 8.2           | 7.9        | 1.8                          |
| <b>2003</b>              | 4.3           | 4.1        | 1.1                          |
| <b>Accumulate return</b> | 5.5           | 5.5        | 4.5                          |

WC: working capital  
Fuente: Banco de la República.

What was the return on the reserve investment portfolio at January 2004?

At January 31, 2004, on provisional data, the return on the investment portfolio was 0.58% (EA) with the breakdown shown in Table A.8.

The return is largely explained by a fall in the interest rates of the countries in the index and the rate of the yen against the US dollar (Tables A.9 and A.10).

TABLE A.8  
INVESTMENT PORTFOLIO PROFITS JANUARY 1/ 2004-JANUARY 31/2004  
(DOLLARS)

|                              | Not realized<br>(a) | Realized<br>(b) | Net effect<br>(a + b) |
|------------------------------|---------------------|-----------------|-----------------------|
| <b>Interest accrued</b>      | 5,717,010.03        | 11,867,384.28   | 17,584,394.31         |
| <b>Price</b>                 | (6,000,632.19)      | 6,615,759.42    | 615,127.23            |
| <b>Exchange differential</b> | (27,758,790.08)     | 13,820,718.36   | (13,938,071.72)       |
| <b>Total</b>                 | (28,042,412.24)     | 32,303,862.06   | 4,261,449.82          |

Source: Banco de la República.

TABLE A.9  
CHANGES IN YIELD CURVE OF US TREASURY BONDS  
(PERCENTAGE)

|                | 31-Dec-03 | 30-Jan-04 | Change |
|----------------|-----------|-----------|--------|
| <b>2 years</b> | 1.82      | 1.82      | 0.00   |
| <b>5 years</b> | 3.25      | 3.15      | (0.10) |

Source: Banco de la República.

TABLE A.10  
CHANGES IN EURO AND YEN RATES AND GOLD PRICE

|                      | 31-Dec-03 | 30-Jan-04 | Change (%) |
|----------------------|-----------|-----------|------------|
| <b>Euro / Dollar</b> | 1.2587    | 1.2473    | (0.91)     |
| <b>Dollar / Yen</b>  | 107.3100  | 105.7600  | 1.47       |
| <b>Gold</b>          | 414.8000  | 402.2000  | (3.04)     |

Source: Banco de la República.

### What are costs of managing the reserves?

The management costs of the reserves can be divided into internal and external. The internal comprises items such as payroll expense, expenditure on information services, technology expense and other expenses (services, publications, etc). The externals are divided into commissions and custody expenses. In 2002 the expenses were as shown in Table A.11.

These costs represent 0.08% of the average value of the investment portfolio of the international reserves (including working capital). In 2002, the gross rate of return on this portfolio was 7.8%; so after expenses, the total return on this part of the reserves was 7.79%.

### What controls are there on the reserve investments?

The Bank has an extensive infrastructure for control of the reserve investments with three separate areas of responsibility: reconciliation of current accounts, assets and investment parameters.

TABLE A.11  
DISTRIBUTION EXPENSES  
(DOLLARS)

|                          |              |
|--------------------------|--------------|
| <b>Internal expenses</b> | 2,162,976.83 |
| Employee expense         | 1,249,938.24 |
| Information systems      | 291,827.84   |
| Technology               | 545,592.92   |
| General expenses         | 75,617.82    |
| <b>External expenses</b> | 5,243,103.13 |
| Custody                  | 673,073.87   |
| Commissions              | 4,570,029.26 |
| <b>Total</b>             | 7,406,079.95 |

Source: Banco de la República.

Also, an internal control department verifies the existence of the procedures necessary for the investment activity and oversees compliance, thus minimizing operating risks.

In addition, Banco de la República is audited by two different sources: first an audit designed by the Presidency of the Republic, and second an audit by the firm Deloitte & Touche. The auditors' comments on the Bank's financial statements can be found on the following internet links:

General Audit: [http://www.banrep.gov.co/banco/dictamen/dic\\_2002\\_2001.pdf](http://www.banrep.gov.co/banco/dictamen/dic_2002_2001.pdf)

General Audit: <http://www.banrep.gov.co/banco/auditoresexternos/feb2003.pdf>

Why not include the yankee bonds issued by Colombia in the investments made by the Bank?

The definition of reserve assets published by the IMF mentions that the liabilities of residents do not constitute reserve assets.

Why have internal management?

The need for immediate cash at the time of an intervention requires the internal management of a certain portion of the international reserves.

Why use external managers?

External managers are used to generate value-added to the reserve investment portfolio through the use of strategies and assets for which the Bank does not have the required internal capacity, although appropriate for reserve assets. The external firms possess the required infrastructure and experience in the management of this type of investment, as well as access to information on specific factors in these markets.

Who are these external managers?

The Bank has been working with the external management program since 1994. In that year, it contracted the services of J. P. Morgan Fleming Asset Management (initially J. P. Morgan Investment Management) and Barclays Global Investors (initially Barclays de Zoete Wedd). In 1999, the program was expanded to a third manager Goldman Sachs Asset Management and since last year, a fourth manager Morgan Stanley Investment Management has been added. All these firms are world leaders in portfolio management.

Is there a public bidding process for the selection of the external managers?

The organization, structure, functions and attributes, as well as the contracts to which the Bank is party are subject to its own legal regime established in the Constitution (Articles 371 to 373), Law 31 of 1992 and Decree 2520 of 1993.

Under this regime, Banco de la República is not subject to the contracting procedures established in Law 80 of 1993. In this respect, Article 3 of Decree 2520 of 1993 reads: *“Because of its special nature, its administrative, capital and technical independence, and by express constitutional mandate that determines the existence of a special legal regime for the Banco de la República, the regime for decentralized entities shall not be applicable, determined principally by decrees 1050, 2400, 3074, 3130 and 3135 of 1968, 128 and 130 of 1976 and Law 80 of 1993, or by those provisions that amend, add to them or replace them, with the exceptions established in Law 31 of 1992.”*

On this basis, and pursuant to Articles 52 of Law of 31 of 1992 and 68 of Decree 2520 of 1993, the Bank is subject to private law in the area of contracting, so it is not obliged to hold public bidding processes for the selection of its contractors.

However, for the sake of transparency and objectivity, the Bank conducts a rigorous process to select the institutions contracted to manage the international reserves.

What are the selection criteria?

The potential managers are pre-selected from the leading firms in the market, based on general criteria such as high credit rating, experience in fund management, credit exposure in Colombia, status as broker/dealers or stockbrokers in the United States, and status as subsidiaries of Primary Dealers or market creators with the New York Federal Reserve.

The pre-selected leading firms are invited to respond to a set of specifications. Based on their replies, the Bank evaluates factors such as company structure (assets, clients, experience in relation to central banks, legal situation), organization (organizational structure, human resources, internal technology processes and information flows), investment process (investment philosophy, decision-making processes, investment alternatives used), production of reports and reconciliation methods, offers of additional services in training and technology transfer, and analysis of returns on comparable portfolios. Each factor is assigned a rating according to pre-established criteria.

After completing the rating based on these factors, the firms are selected on the basis of the total rating obtained by each pre-selected firm. At this stage, the candidate firms are visited to confirm the information supplied in their replies to the specifications.

The Bank then evaluates the financial proposal which is also assigned a rating in accordance with the criteria. The final rating for each candidate institution, which is what determines the choice of the external manager, is based on a weighting of the total rating of the factors evaluated with the specifications and the visits, and the rating assigned to the financial proposals.

According to recently published surveys, the firms that provide these services to the Bank are among the market leaders (Table A.12).

TABLE A.12  
MANAGEMENT FIRMS THAT PROVIDE SERVICES TO THE BANK

| Institutional Investor                    | Nelson Financial                          |
|---|---|
| Pacific Investment Management Co. (Pimco) | Pacific Investment Management Co. (Pimco) |
| Fidelity Investments                      | TCW Group                                 |
| Goldman Sachs Asset Management            | Western Asset Management                  |
| Morgan Stanley Investment Management      | Payden & Rygel                            |
| Western Asset Management                  | Boston Co. Asset Management, LLC          |
| J. P. Morgan Fleming Asset Management     | Federated Investors Inc.                  |
| Invesco Global Asset Management           | Goldman Sachs Asset Management            |
| Fidelity Investments                      | Morgan Stanley Investment Management      |
| BlackRock Financial Management            | Fleet Investment Advisors                 |
| Barclays Global Investors                 | MPI Investment Management                 |

Source: Banco de la República.

How do you know that the external managers are good?

A good manager consistently generates excess returns in relation to a reference portfolio, with an adequate use of risk. An indicator known as the information ratio is used to measure the efficiency of a manager. This ratio consists of examining the units of excess return generated for each unit of risk assumed: a ratio of 1 implies excellent management and 0.5 is acceptable. Table A.13 shows the information ratios for the current managers of the reserves for the last three years.

What commission do these firms receive for managing the country's international reserve funds?

The commission paid to a manager for provision of services is based on a "performance fee" scheme. Under this scheme, the manager is compensated for the excess return generated in relation to its reference index. The performance fee has two components: a basic tariff, which is paid irrespective of the excess return and a performance portion, which depends on the excess return generated over the reference index. The Figure shows the reference scheme used by the Bank to establish the performance fees.

TABLE A.13  
MANAGEMENT FIRMS OF INTERNATIONAL RESERVES,  
DEC/99 - DEC/03

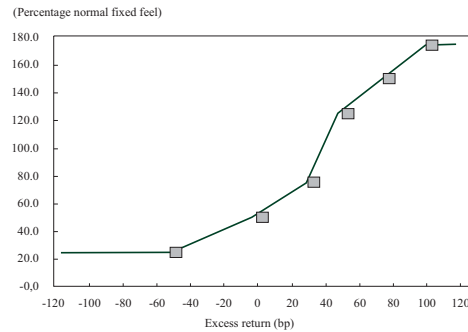
| Portfolio                                | Excess return<br>(annualized) | Volatility | Information<br>ratio |
|--|-------------------------------|------------|----------------------|
| J. P. Morgan Fleming Asset Management    | 0.40                          | 0.54       | 0.73                 |
| Barclays Global Investors                | 0.63                          | 0.37       | 1.69                 |
| Goldman Sachs Asset Management           | 0.44                          | 0.40       | 1.11                 |
| Morgan Stanley Investment Management (*) | n.a.                          | n.a.       | n.a.                 |

n. a. Not available.

(\*) (\*) Since Morgan Stanley Investment Management has been a manager for the Bank for less than three years, there is no statistically significant information to calculate the information ratio.

Source: Banco de la República.

FIGURE  
PERFORMANCE FEE - COMPARISON REFERENCE



Source: Banco de la República.

The preceding Figure shows that for excess returns under -50 basis points <sup>6</sup> per year against the index, the performance tariff is equal to a fixed value, which is the basic portion of the tariff. For intermediate excess returns, the scale is based on the excess return generated and on the expected excess return for the manager. For excess returns above a certain level, the performance tariff stabilizes to discourage excessive risk-taking by the manager. This limitation is combined with a maximum risk target limit on the index that the manager can take.

Why not use Colombian administrators?

In Colombia there are no firms that specialize in the management of portfolios composed of international fixed-income assets, whereas the firms contracted have (literally) centuries of experience in the investment business.

Why not delegate everything to external managers?

The reserve liquidity policy defines tranches that statistically establish the use requirements of the reserves in different periods of time and under extreme conditions. The external managers are

<sup>6</sup> 100 basis points are equivalent to one percent (1.0%).

assigned a portion that is not expected to be used for one year. With this longer term, the manages can include instruments with a lower liquidity than US government bonds but a higher return.

Why not have more profitable investments in the reserves?

Profitability is a compensation for the risk assumed, so the two measures are directly proportional: higher profitability requires greater exposure to risk. The investments currently eligible meet the minimum characteristics of security and liquidity acceptable for a reserve portfolio.

What are the profits that the Bank pays to the Government?

The international reserves are booked at market prices. Changes in the value of the international reserves do not affect the Bank's income or expenses.

The Bank's income consists of the return earned on the treasury instruments issued by the Government to replace the national domestic public debt with Banco de la República. The service on these instruments is paid from the national budget and is not guaranteed by the Bank.

*Reserves.* The Board creates or increases a monetary and foreign exchange stabilization reserve with each period's profits. The purpose of this reserve is to absorb possible losses of the Bank, before recurring to the appropriations established in the annual budget law.

*Profits, losses and transfers for account of the National Government.* The Bank's retained earnings, after appropriating the reserves set out in the previous subsection, belong to the Nation. The losses for the period are covered by the Nation when they are not covered by the reserves established in the preceding subsection.

The Bank's profits cannot be distributed or transferred to the Nation if prior period losses have not been totally covered from their reserves.

The Bank makes an annual projection of its net operating result which is included in the revenue budget of the annual budget law; if the Bank projects a deficit the necessary appropriation is made to cover it and any prior period losses.

Profits or losses, as applicable, are paid in cash in the first quarter of each year<sup>7</sup>.

International recognition of reserve management

Consulting by the Bank

- ✘ Nicaragua (in agreement with IDB-1997)
- ✘ Cuba (2002)
- ✘ El Salvador (agreement with Cemla (Center for Latin American Monetary Studies) 2003)
- ✘ Andean Development Corporation (2004)

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<sup>7</sup> Law 31 of 1992.

#### Presentations

- ✕ Cemla (regular)
- ✕ Bank for International Settlements BIS
- ✕ FLAR
- ✕ Bank of England

#### Articles

##### Central Banking Publications

De Beaufort, Roberto (2001). "The Changing Nature of Reserve Management Risks," in *Risk Management for Central Bankers*.

<http://www.centralbanking.co.uk/publications/directories/rmcb.htm>

De Beaufort, Roberto; Palomino, Francisco; Benítez, Sandra (2003). "The Case for Investing in Corporate Debt," in *How Countries Manage Reserve Assets*.

<http://www.centralbanking.co.uk/publications/books/hcmra.htm>

Banco de la República is frequently considered as an example of adequate reserve management and has actively participated in training seminars and programs with the IMF and World Bank. The Bank has been a pioneer in the joint development with the IMF of adequate standards for reserve management and reporting. This public document can be found in English at the following link:

<http://www.imf.org/external/np/mae/ferm/2003/eng/index.htm>

In 1998 the Bank held a successful seminar for central banks from the area, which was given in cooperation with leading investment banks, such as J. P. Morgan, Barclays Bank, Merrill Lynch, Crédit Suisse, ABN Amro and BNP Paribas.



## V

### FINANCIAL SITUATION OF BANCO DE LA REPÚBLICA

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#### A. RESULTS IN 2003

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Banco de la República held assets totaling 43,707.7 billion pesos in 2003, with annual growth of 3,022.2 billion pesos (7.4%) (Table 24). This growth is mostly explained by: a) greater demand for repos of the financial system, 1,385.9 billion pesos; b) increase of 829.5 billion pesos in investments from 2,371.9 billion in 2002 to 3,201.4 billion in 2003, basically due to the Bank's policy of permanent expansion through the purchase of TES at year end; c) adjustment of the value of contributions to international organizations, mainly the IMF agreement, of 573 billion pesos (these contributions have a balancing entry in the liabilities in the "obligations with international organizations" account, which increased 582.6 billion pesos); and d) the increase in the international reserves of 133.4 billion pesos, associated with the accumulation of gross reserves, US\$77.2 million, and the appreciation of the peso against the dollar, which generated a reduction of 48.2 billion pesos in the exchange adjustment in equity.

Liabilities totaled 20,762.8 billion pesos, an annual increase of 3,061.3 billion pesos, while the value of

equity was 22,944.9 billion pesos, down 39.1 billion pesos in the year. The rise in liabilities was due to the increase in base money of 2,510.0 billion pesos (17.8%), and the increase in obligations with international organizations of 582.6 billion pesos, mentioned earlier. In equity, capital reserves increased 581.6 billion, which are used to cover possible losses from fluctuations in the exchange rates of the currencies that compose the international reserves.

In 2003, the Bank obtained net profit of 1,447.4 billion pesos (Table 25), product of income of 2,031.8 billion pesos and expenses of 584.3 billion pesos. The income generated in the year fell by 795.3 billion pesos (28.1%) from 2002, mainly due to the return on the international reserves, 1,327 billion pesos (US\$464.3 million). The return on the reserves was 717.3 billion pesos (35.1%) lower than the year, explained by: i) the low level of international interest rates in 2003<sup>30</sup>; ii) the contraction in the portfolio in the first half year following intervention in the exchange market; and iii) the revaluation of the peso

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<sup>30</sup> In 2003, the rate of return on 2-year US Treasury bonds, which are used to approximate the interest rates on the international reserves portfolio, averaged 1.64% against 4.48% in the 1999-2002 period.

**TABLE 24**  
**BALANCE SHEET OF THE BANCO DE LA REPÚBLICA - RESULTS FOR 2002-2003**  
 (BILLIONS OF PESOS)

|   | December, 2002 |         | December, 2003 |         |
|---|----------------|---------|----------------|---------|
|   | Balances       | Share % | Balances       | Share % |
| <b>Assets</b>   | 40,685.4       | 100.0   | 43,707.7       | 100.0   |
| Gross international reserves  | 30,525.0       | 75.0    | 30,658.4       | 70.1    |
| Contributions to international organizations                            | 2,680.5        | 6.6     | 3,253.9        | 7.4     |
| Investments   | 2,371.9        | 5.8     | 3,201.4        | 7.3     |
| Consolidated public-sector debt   | 162.6          | 0.4     | 81.4           | 0.2     |
| Monetary regulation public sector                                       | 2,154.6        | 5.3     | 3,061.0        | 7.0     |
| Capitalization bonds banks public and others                            | 54.7           | 0.1     | 59.1           | 0.1     |
| Loans   | 130.2          | 0.3     | 85.1           | 0.2     |
| Public sector national government                                       | 3.1            | 0.0     | 2.8            | 0.0     |
| Banks   | 1.8            | 0.0     | 0.1            | 0.0     |
| Financial corporations  | 127.6          | 0.3     | 5.1            | 0.0     |
| Rest of financial system  |                |         | 79.2           | 0.2     |
| Other loans   | 0.9            | 0.0     |                |         |
| Provision   |                | (3.2)   | (2.0)          | (0.0)   |
| Resale agreements - temporary liquidity support                         | 2,212.0        | 5.4     | 3,597.9        | 8.2     |
| Accounts receivable   | 110.0          | 0.3     | 104.4          | 0.2     |
| Other net assets  | 2,655.8        | 6.5     | 2,806.5        | 6.4     |
| <b>Liabilities and equity</b>   | 40,685.4       | 100.0   | 43,707.7       | 100.0   |
| <b>Liabilities</b>  | 17,701.5       | 43.5    | 20,762.8       | 47.5    |
| Foreign currency liabilities that affect international reserves         | 10.2           | 0.0     | 16.2           | 0.0     |
| Base money  | 14,104.6       | 34.7    | 16,614.6       | 38.0    |
| Notes in circulation  | 12,013.0       | 29.5    | 14,398.3       | 32.9    |
| Coins   | 349.7          | 0.9     | 372.4          | 0.9     |
| Deposits for bank reserves  | 1,622.3        | 4.0     | 1,694.1        | 3.9     |
| Deposits on current account rest of financial sector                    | 119.6          | 0.3     | 149.8          | 0.3     |
| Other deposits  | 179.6          | 0.4     | 72.2           | 0.2     |
| National Government - National Treasury                                 | 39.8           | 0.1     | 46.0           | 0.1     |
| Obligations international organizations                                 | 2,060.9        | 5.1     | 2,643.5        | 6.0     |
| Liabilities for external lines  | 203.1          | 0.5     | 184.1          | 0.4     |
| Instruments of monetary and exchange regulation                         | 134.6          | 0.3     | 28.5           | 0.1     |
| Contraction repos   | 134.0          | 0.3     | 28.0           | 0.1     |
| Foreign currency instruments for financing and Deposit Reserve 5/97 J D | 0.5            | 0.0     | 0.4            | 0.0     |
| Others  | 0.1            | 0.0     | 0.1            | 0.0     |
| Accounts payable  | 37.1           | 0.1     | 42.6           | 0.1     |
| Other liabilities   | 931.5          | 2.3     | 1,115.1        | 2.6     |
| <b>Total equity</b>   | 22,984.0       | 56.5    | 22,944.9       | 52.5    |
| Capital   | 12.7           | 0.0     | 12.7           | 0.0     |
| Reserves  | 311.6          | 0.8     | 893.2          | 2.0     |
| Equity surplus  | 19,593.3       | 48.2    | 19,553.4       | 44.7    |
| CEC liquidation   | 453.5          | 1.1     | 453.5          | 1.0     |
| Exchange adjustment. 1993 and later and surplus                         | 19,103.2       | 47.0    | 19,054.9       | 43.6    |
| Others  | 36.7           | 0.1     | 45.0           | 0.1     |
| Asset revaluations (art. culture and property)                          | 995.0          | 2.4     | 1,038.2        | 2.4     |
| Results   | 2,071.3        | 5.1     | 1,447.4        | 3.3     |
| Retained profit / losses  |                |         |                |         |
| Profit or loss for period   | 2,071.3        | 5.1     | 1,447.4        | 3.3     |

Source: Banco de la República.

**TABLE 25**  
**INCOME STATEMENT, BANCO DE LA REPÚBLICA 2002-2004**  
**(BILLIONS OF PESOS)**

|  | Execution |         | Observed<br>annual<br>change<br>(%) | Projection<br>2004 | Estimated<br>annual<br>change<br>(%) |
|--|-----------|---------|-------------------------------------|--------------------|--------------------------------------|
|  | 2002      | 2003    |                                     |                    |                                      |
| <b>I. Total income</b>   | 2,827.1   | 2,031.8 | (28.1)                              | 994.8              | (51.0)                               |
| 1. Operating income  | 2,809.4   | 1,990.7 | (29.1)                              | 989.4              | (50.3)                               |
| Interest and returns   | 2,411.9   | 1,802.9 | (25.3)                              | 777.9              | (56.9)                               |
| International reserves   | 2,044.2   | 1,326.9 | (35.1)                              | 277.6              | (79.1)                               |
| External lines   | 7.5       | 4.5     | (39.7)                              | 3.3                | (27.3)                               |
| Revaluation of TES "A" at market prices                            | 20.3      | 7.7     | (62.2)                              |                    | (100.0)                              |
| Reval, TES for monetary expansion operations                       | 274.8     | 340.8   | 24.0                                | 388.4              | 14.0                                 |
| TES Law 546  | 6.6       | 8.2     | 23.9                                | 6.4                |                                      |
| Temporary purchase of instruments and quotas                       | 48.1      | 105.6   | 119.5                               | 95.8               | (9.3)                                |
| Others   | 10.5      | 9.3     | (11.7)                              | 6.3                | (31.5)                               |
| Commissions  | 117.7     | 121.9   | 3.6                                 | 119.2              | (2.2)                                |
| Banking services and trust business 97.7                           | 91.0      | (6.9)   | 90.8                                | (0.2)              |                                      |
| Foreign currency management  | 13.5      | 27.4    | 102.9                               | 28.3               | 3.5                                  |
| Others   | 6.4       | 3.5     | (45.1)                              | 0.1                | (98.4)                               |
| Exchange differences   | 259.9     | 22.3    | (91.4)                              | 39.5               | 76.9                                 |
| Coins issued and precious metals                                   | 1.5       | 21.3    | 1,284.5                             | 35.2               | 65.2                                 |
| Others   | 18.4      | 22.3    | 21.2                                | 17.6               | (21.0)                               |
| 2. Non-operating income  | 17.7      | 41.1    | 132.1                               | 5.5                | (86.7)                               |
| <b>II. Total expenses</b>  | 755.8     | 584.3   | (22.7)                              | 659.5              | 12.9                                 |
| 1. Operating expenses  |           |         |                                     |                    |                                      |
| Interest and returns   | 179.1     | 152.3   | (15.0)                              | 167.4              | 10.0                                 |
| Deposit accounts   | 123.9     | 103.9   | (16.1)                              | 117.4              | 12.9                                 |
| Short-term sales instruments                                       | 19.3      | 9.8     | (49.4)                              | 12.8               | 30.6                                 |
| External lines, exchangeable instruments and others                | 9.6       | 9.1     | (5.6)                               | 7.9                | (13.1)                               |
| Administrative expenses international reserves                     | 26.2      | 29.4    |                                     | 29.4               |                                      |
| Commissions and fees   | 2.7       | 3.0     | 11.9                                | 2.3                | (21.4)                               |
| Exchange differences   | 139.3     | 42.2    | (69.7)                              | 63.5               | 50.7                                 |
| International organizations  | 26.6      | 18.8    | (29.3)                              | 50.7               | 169.9                                |
| External lines   | 52.8      | 20.2    | (61.7)                              | 3.5                | (82.5)                               |
| Others   | 60.0      | 3.2     | (94.7)                              | 9.3                | 193.6                                |
| Costs of issue of notes and coins                                  | 58.0      | 89.6    | 54.4                                | 90.1               | 0.6                                  |
| Employee expenses  | 161.2     | 156.9   | (2.7)                               | 168.0              | 7.0                                  |
| Retirement pensions  | 91.0      | 28.2    | (69.0)                              | 39.6               | 40.3                                 |
| General expenses   | 45.5      | 44.2    | (2.8)                               | 47.2               | 6.9                                  |
| Tax  | 3.2       | 5.0     | 54.5                                | 5.2                | 3.4                                  |
| Insurance  | 7.9       | 10.5    | 33.6                                | 13.4               | 26.8                                 |
| Contributions  | 3.3       | 2.9     | (12.6)                              | 3.7                | 26.1                                 |
| Cultural expenses  | 6.3       | 6.6     | 5.5                                 | 7.9                | 18.5                                 |
| Provisions, depreciation and amortizations                         | 40.0      | 28.1    | (29.9)                              | 37.7               | 34.4                                 |
| 2. Non-operating expenses  | 18.2      | 14.9    | (18.4)                              | 13.5               | (9.1)                                |
| <b>III. Profits / losses for the period including depreciation</b> | 2,071.3   | 1,447.4 | (30.1)                              | 335.4              | (76.8)                               |

Source: Banco de la República.

Banco de la República continued its expenditure rationalization program, obtaining better results than the initial targets. Expenses were cut, especially general expenses, to keep the growth level below the 5.5% inflation target; as a result in 2003, general expenses fell 2.8% in nominal terms and employee expense fell 2.7% against the same period of the year before.

against the dollar. Other important income included: the TES revaluations, 340.8 billion pesos (24.0%) and the return on short-term purchases of instruments, 105.6 billion pesos. The reduction in exchange difference was 237.6 billion pesos, due to the depreciation of the peso against the dollar.

Another significant reduction was that of 68.4 billion pesos in the sum of labor and pensions expenses and general expenses, which totaled 229.3 billion pesos in the year. Other important expenses were: interest expense on deposit accounts<sup>31</sup>, 103.9 billion pesos; cost of the currency issue, 89.6 billion pesos; and the exchange difference<sup>32</sup>, 42.2 billion pesos, which fell 96.8 billion pesos from 2002.

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#### B. CREATION OF RESERVES AND DISTRIBUTION OF PROFITS

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In accord with the Bank's Statutes, the Board decided to distribute 1,546.8 billion pesos this year: 1,447.4 billion pesos from the profit obtained in the period; 37.1 billion pesos from part of the reserves

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<sup>31</sup> The remuneration on the legal reserve and remunerated deposits of the General Treasury of the Nation in Banco de la República.

<sup>32</sup> The valuation of the liabilities denominated in foreign currency which do not affect the international reserves.

accumulated for protection of assets; and 62.3 billion pesos from the reserve for exchange results. These funds were allocated as follows: i) 730.3 billion pesos to increase the reserve for foreign currency fluctuation in compliance with Bank regulations; ii) 13.6 billion pesos for net investment in assets destined for cultural activity; and iii) 802.8 billion pesos for the National Government. (Table 26).

As a result, the balance of the capital reserves from February 2004 is as follows: i) reserve for currency fluctuations, 1,418.7 billion pesos, and ii) asset protection reserve, 105.4 billion pesos. The Board decided not to maintain reserves for exchange results since at present the Bank's currency trading operations in dollars use the representative market rate on the day, with no possibility of generating

TABLE 26  
DISTRIBUTION OF PROFITS  
AND USE OF BANK RESERVES  
(BILLIONS OF PESOS)

|   |         |
|---|---------|
| <b>Funds to be distributed</b>                    | 1,546.8 |
| Profits 2003                                      | 1,447.4 |
| Utilization reserve                               | 99.4    |
| Exchange gains                                    | 62.3    |
| Asset protection                                  | 37.1    |
| <b>Allocation</b>                                 | 1,546.8 |
| National Government                               | 802.8   |
| Currency fluctuation reserve                      | 730.3   |
| Net investment in assets<br>for cultural activity | 13.6    |

Source: Banco de la República.

gains or losses. Likewise, the monetary and exchange stabilization reserve was left with zero balance because no losses are projected on the income statement for the next two years.

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### C. INCOME AND EXPENSES PROJECTION FOR 2004

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For this year total income is estimated at 994.8 billion pesos and expenses at 659.5 billion pesos, producing a projected profit of 335.4 billion pesos. The main sources of income will be the revaluation of the TES portfolio acquired by the Bank, 388.4 billion pesos; interest and return on international reserves, 277.6 billion pesos; and commissions received, 119.2 billion pesos (Table 25).

The fall in the return on international reserves, compared with last year, is explained by:

1. In 2003 extraordinary income was received from the revaluation of the euro and the yen, and the higher international gold price, a situation that has partially reversed this year to date<sup>33</sup>. The projection for 2004, which assumes a return on reserves of US\$102.9 million and the exchange rates in effect in mid-March, which reflect a decrease in value of US\$47 million of the reserve portfolio<sup>34</sup>.
2. The lower international interest rates in 2003 generated a significant revaluation of the reserve portfolio in that year. The projection

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<sup>33</sup> 1 On March 15, 2004, the euro and yen rates were US\$1,2265 per euro and 110.31 yen per dollar compared with 1.2587 and 107.31, respectively at the end of December 2003.

<sup>34</sup> The return on the international reserves is calculated with information at March 15, 2004.

for 2004 takes into account the trend in interest rates between January and March 15, plus the interest rates implicit in forward trading on the interbank markets in the United States, which has an upward trend.

On this basis, the return on the reserve portfolio from interest for all 2004 is estimated at 1.19%, and from exchange differential -0.4%, giving a total return on the reserve portfolio of 0.78%.

Expenses are projected at 659.5 billion pesos, an increase of 75.2 billion pesos (12.9%) from 2003. The main expenses are: i) employee, 168 billion pesos, up 11.0 billion pesos (7.0%); ii) remuneration on deposit accounts, 117.4 billion pesos<sup>35</sup>; iii) cost of currency issue, 90.1 billion pesos; iv) retirement pensions, 39.6 billion pesos, which grew 11.4 billion pesos from the year before because of higher actuarial provisions arising from the new pension regime (Law 197 of 2003); and v) general expenses, 47.2 billion pesos.

Lastly, the projection of the Bank's income statement for 2004 for 335.4 billion pesos requires the following clarifications:

1. It does not consider the possible effects of the Bank's intention to accumulate up to US\$700 million in international reserves between April and July, and to sterilize up to 50% of foreign exchange purchases made with sales of TES. When this operation takes place, the profits could be lower than estimated.
2. As mentioned earlier, so far this year the return on the international reserves has been negatively affected by the euro and yen

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<sup>35</sup> See footnote 31.

devaluations against the dollar. If these currencies remain at current levels, or if they depreciate further, the exchange differential

reserve could be used to prevent this factor from affecting the profit distribution to the Government.