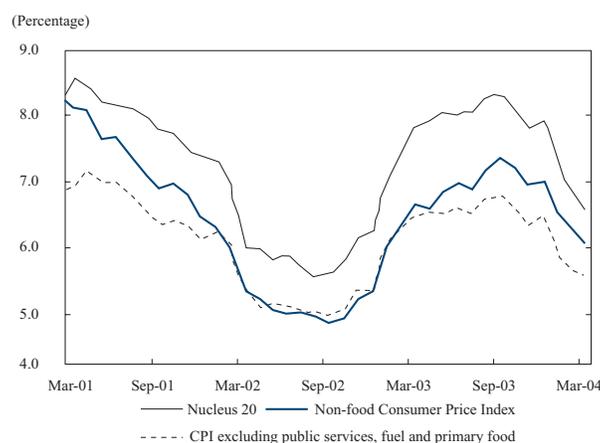


# THE INFLATION SITUATION IN MARCH AND THE OUTLOOK

## 1. INTRODUCTION

In the first quarter of this year, core inflation showed a clear downward trend. Annual non-food inflation was 6.1%, a sharp fall from the December figure (7.1%). All the other core inflation indicators followed a similar trend. The average of the three most used (non-food, nuclear and CPI excluding primary food, public services and fuel) in March was 6.0%, 1.1 percentage points below the December data and the lowest level since the end of 2002 (Figure 1).

FIGURE 1  
CORE INFLATION



Source: National Statistical Administrative Department (DANE), Bank's own calculations.

As forecast in previous reports, the fall in core inflation was due to the sharp reduction in tradable goods inflation, resulting from the stability of the exchange rate in the second half of 2003 and its appreciation since late 2002 (Figure 2). Even so, in the last three months the appreciation was higher than the forecast made in the previous quarter, and has offset the increase in the international prices of the commodities imported by Colombia.

FIGURE 2  
ANNUAL CORE INFLATION CPI (\*)  
TRADABLES AND NON-TRADABLES



(\*) Excluding food prices and prices of regulated goods and services.  
Source: DANE, Bank's own calculations.

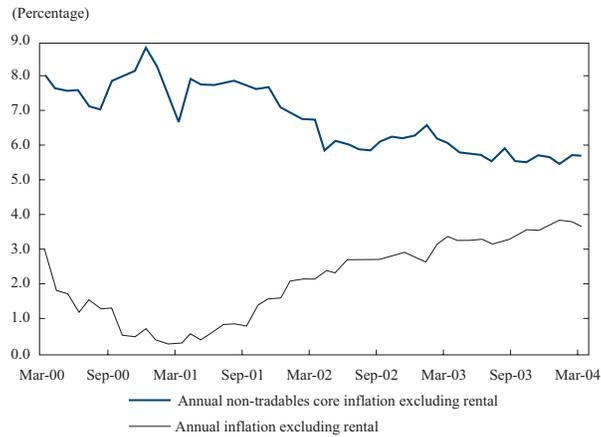
The recent trend in the inflation of tradables shows that the pass-through of the devaluation that took place between mid-2002 to mid-2003 had been largely completed by March this year, within the period forecast in previous reports. The inflation of tradables (excluding primary food and regulated prices) was 5.6% last month, similar to June 2002 (5.0%) when the devaluation phase began. Also, the pass-through of the exchange rate to tradables inflation was equivalent to three percentage points for every 10 of annual devaluation, and to total inflation 0.3 percentage points (excluding indirect effects on non-tradables inflation), close to the estimates used in the Bank's models.

Core inflation of non-tradables remained stable at slightly above 4.5% (Figures 2 and 3) as a result of rental inflation that did not increase in the first quarter for the first time since late 2003, while inflation for the rest of non-tradable goods stabilized in the range of 5.5% to 6.0% during this period.

The lowering of inflation expectations possibly contributed to the stability of non-tradables inflation, according to the various indicators (Figure 4). The latest quarterly expectations survey taken by the Bank in January revealed a fall in expected inflation over various horizons in relation to the measurements taken in previous quarters. For September 2004, respondents expected inflation of 6.3% with the latest survey, against 6.6% obtained in the October survey. The Bank's monthly expectations survey and the differential between the rates of fixed-rate Treasury bills (TES) and inflation indexed TES also suggested a reduction in inflation expectations.

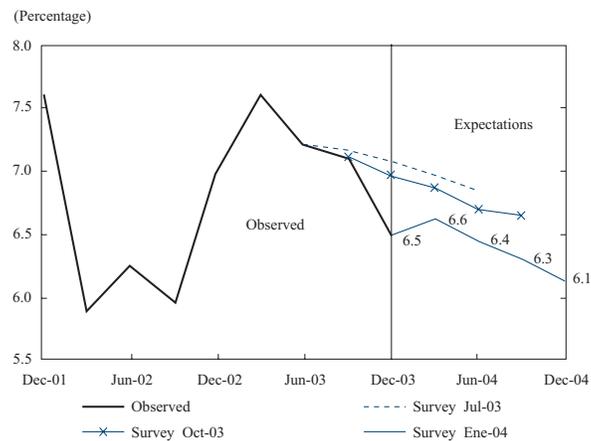
The good performance of core inflation offset the increase in food inflation in the first quarter (which was above the forecast). In addition to the food shock, in March the shocks on regulated goods and services continued (mainly fuel and public services). Last month, annual inflation in this sub-group was 11.7%.

**FIGURE 3**  
**ANNUAL RENTAL INFLATION**  
**AND (\*) NON-TRADABLES CORE INFLATION (EXCLUDING RENTAL)**



(\*) Excluding food prices and prices of regulated goods and services.  
 Source: DANE, Bank's own calculations.

**FIGURE 4**  
**OBSERVED INFLATION AND INFLATION EXPECTATIONS**  
**(AT 3, 6, 9 AND 12 MONTHS)**



Source: Bank of the Republic, expectations survey January 2004.

## II. CURRENT ECONOMIC SITUATION

### A. External context, exchange rate and production of tradables

The most outstanding factor in relation to external variables since the last *Report on Inflation* has been the exchange rate appreciation. The recent trend in the

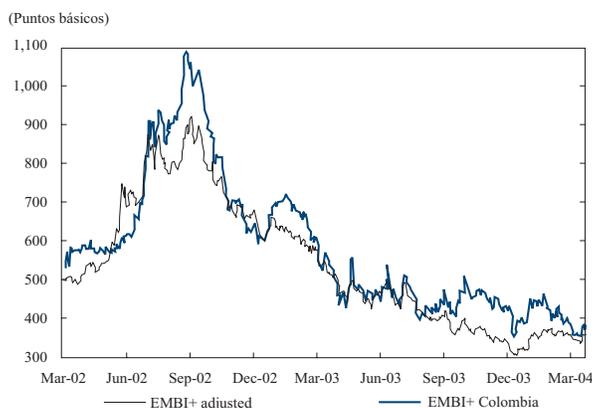
exchange rate suggests that the economy entered a phase of a stronger appreciation, that the one forecasted in the December report. This has occurred for several reasons:

- ✘ A higher than projected increase in remittances from abroad.
- ✘ The increase, higher than expected, in the international prices of various export commodities.
- ✘ Higher than expected increases in traditional (coal) and non-traditional exports (to Venezuela and the United States).
- ✘ Increased confidence in the outlook for the economy.

More recently, other factors such as the increase in Government net external financing, net portfolio inflows, and the shift in the trend in private-sector net external borrowing (mainly short term) have accentuated the revaluation trend.

The exchange rate appreciated in the early months of 2004 in the context of the increased capital flows into the emerging economies and a low aversion to risk, which maintained the country risk premiums of most regional economies at levels close to historical lows (Figure 5). The two previous factors were stimulated largely by broad international liquidity for over two years whose main expression has been the low real interest rates in the United States and Europe.

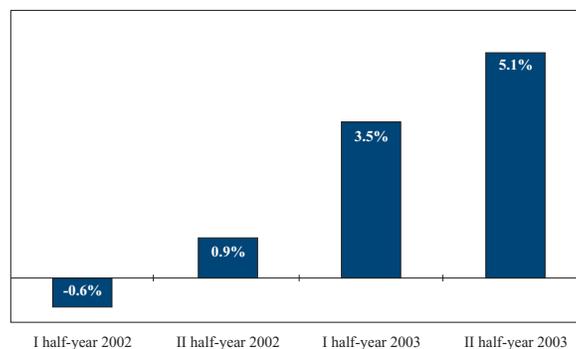
FIGURE 5  
COUNTRY RISK PREMIUMS  
EMBI+ ADJUSTED (\*) VS. EMBI+ COLOMBIA



(\*) EMBI+ adjusted excluding Argentina.  
Source: Bloomberg.

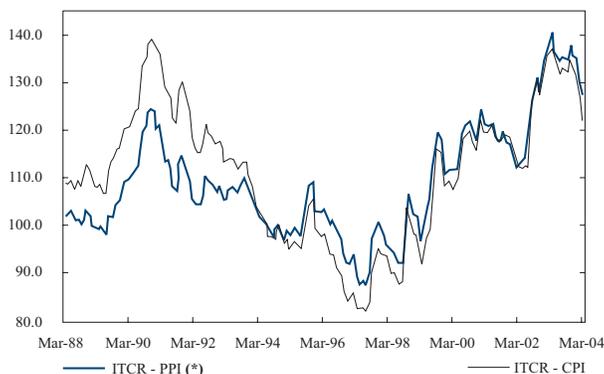
These favorable external conditions resulted in the steady growth of tradable sectors such as mining and manufacturing industry (Figure 6), despite the recent fall in the real exchange rate, which, in any event, continues at historically high levels (Figure 7).

FIGURE 6  
ANNUAL GROWTH OF TRADABLE SECTORS GDP



Source: DANE.

FIGURE 7  
REAL EXCHANGE RATE INDEX (ITCR)  
(1994 = 100)



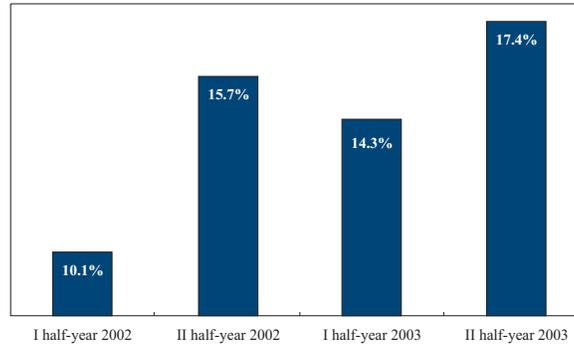
(\*) IPP: producer price index  
Source: Banco de la República.

## B. Domestic demand and production of non-tradables

In the last six months, domestic demand continued to recover, led mainly by private investment (Figure 8). Household consumption, which until mid-2003 grew weakly, gained dynamism toward the end of the year, especially in the first quarter of 2004, as several leading sectoral indicators suggest, such as retail and wholesale trade and credit card sales (Figure 9).

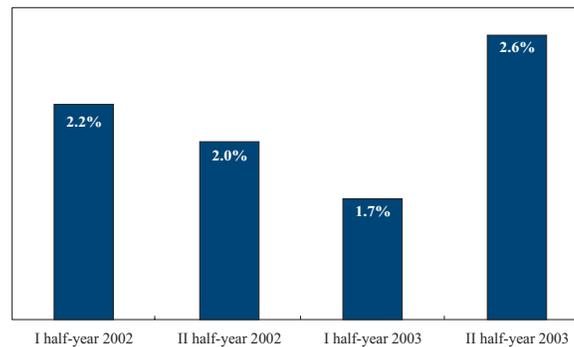
The pickup in domestic demand continued supported by low real interest rates, the increase in private-sector disposable income due to improved terms of trade, a significant increase in remittances from abroad, recovery of employment, and the increase in household wealth associated with higher asset prices. All this has been accompanied by greater availability of domestic financing, observed in the growth of loans from the financial system, and in the availability of earnings for corporate reinvestment.

FIGURE 8  
ANNUAL GROWTH OF PRIVATE INVESTMENT



Source: DANE.

FIGURE 9  
ANNUAL GROWTH  
OF HOUSEHOLD CONSUMPTION



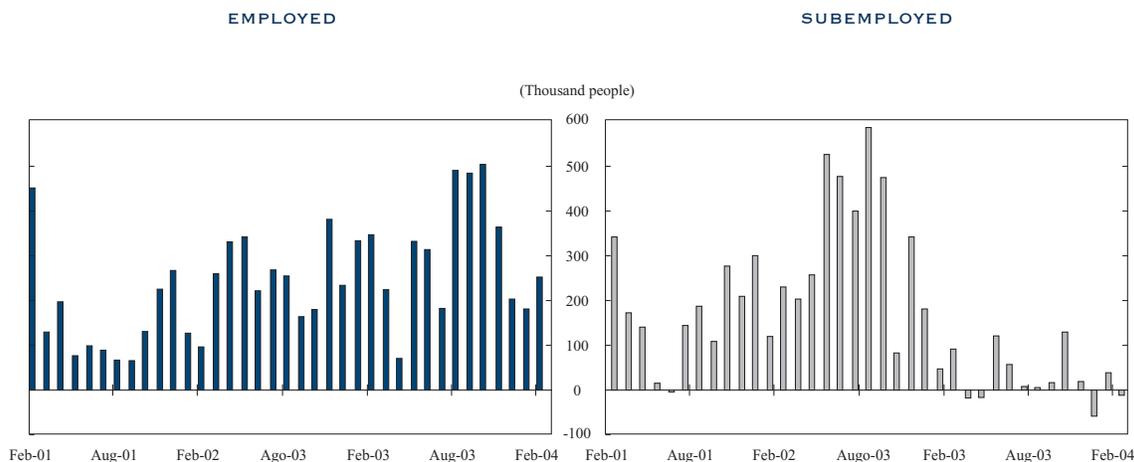
Source: DANE.

Domestic demand was also strengthened by increased consumer and business confidence, and easier access to international capital markets by both public and private sectors, thanks to low country-risk premiums and expectations of exchange rate appreciation.

On the labor front, economic expansion is leading to a recovery of the levels and quality of employment; in fact, the share of sub-employment in growth of urban employment has fallen sharply since mid-2003 (Figure 10).

In relation to supply, the increasing strength of domestic demand in recent months has continued to stimulate the expansion of sectors that produce non-tradable goods - especially construction, commerce and transport services - as shown by indicators such as building permits, loans to constructors, and the trend in retail sales reported by the National Federation of Retail Traders (Fenalco).

FIGURE 10  
ANNUAL GROWTH OF THE NUMBER  
OF EMPLOYED AND SUBEMPLOYED  
FOR THE 13 MAIN CITIES



Source: DANE.

### C. Spare capacity

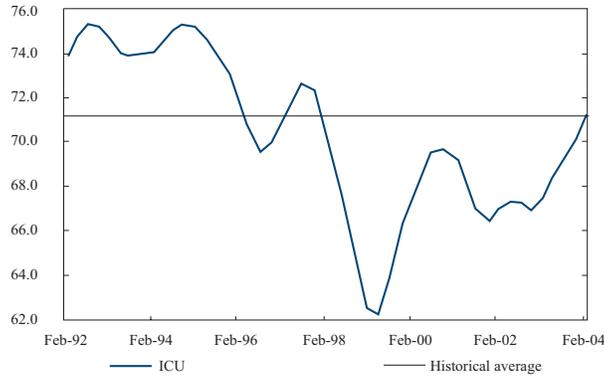
A key aspect of the evaluation of the current inflation situation is to determine how long the economy can expand at current or even higher rates without generating inflationary pressures that jeopardize inflation targets; several measures of spare output capacity are used to estimate this.

For the first quarter, the available indicators do not reveal a single trend. The industrial indicators - installed capacity utilization (ICU) and demand as main problem of expansion - suggest that spare capacity continued to decline in the first quarter of 2004. However, other information suggests the presence of broad levels of spare capacity, which are decreasing more slowly than forecast.

In relation to the first trend, on February figures, ICU increased sharply according to the National Association of Industries (ANDI). Even so, the level of this indicator for this month (71.3% for the seasonally adjusted series) was at the historical average, which has not happened since mid-1977. With respect to the demand indicator, the percentage of industrial firms that perceived demand as their biggest problem for expansion of production decreased again at the start of the year to levels similar to 1996 and 1997 (Figures 11 and 12). This trend indicates a sharp reduction in spare capacity to levels that could foreshadow the emergence of inflationary pressures even in the short term.

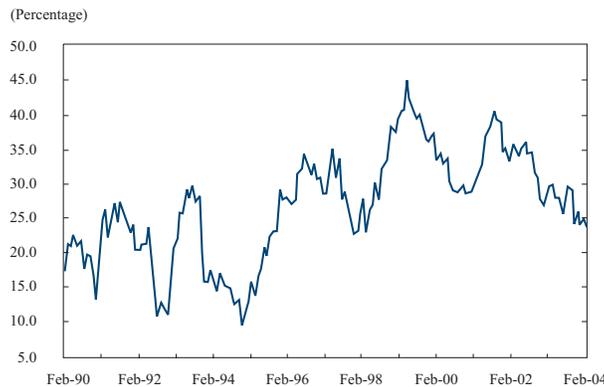
However, it should be noted, that the historical average of the Fedesarrollo ICU indicator has fallen because the observed data has been systematically lower than the mean of the last five years. For this reason, this average is not, currently, a reliable indicator of the presence of possible inflationary pressures. The average

FIGURE 11  
 INSTALLED CAPACITY UTILIZATION (ICU)  
 (FEDESARROLLO - TREND COMPONENT)



Source: Fedesarrollo, Bank's own calculations.

FIGURE 12  
 INDICATOR OF INSUFFICIENCY OF DEMAND MEASURED BY ANDI (\*)



(\*) percentage of industrial firms that consider that their main problem for expansion of production is lack of demand.  
 Source: ANDI.

ICU has fluctuated between 70.5% and 72.7%, and the February data is still in the lower part of this range. This shows that the manufacturing sector could expand more without putting pressure on inflation.

Also, at the start of the year the unemployment rate fell at a much slower rate than last year and is still at very high levels (17.1% in February), much above the recent estimate of the non-accelerating inflation rate of unemployment, which is 13.5%<sup>1</sup>.

<sup>1</sup> This is the unemployment rate at which inflationary pressures could begin to appear in the economy. The non-accelerating inflation rate of unemployment (Nairu) is usually higher in developing economies and economies with more rigid labor markets.

Third, the output capacity of the economy could be expanding at a higher rate in 2004 taking into account the high growth of private investment in 2003 and early 2004.

On this basis, it was decided to re-estimate the output gap, assuming, among other things, a lower level of Nairu (according to recent studies by the Bank of the Republic), and a higher rate of private investment. The new calculation puts the average potential output gap in 2004 at -1.75%, a wider level than the estimate in December report (-1.36%). The new gap implies 3.6% growth of potential GDP in 2004 and not 3.0% as estimated in the last quarterly report.

### III. MACROECONOMIC OUTLOOK

Economic performance during the next few quarters will continue to be linked to a series of domestic and external factors, some of which were identified in the December report. The main factors are:

- ✘ A monetary policy that stimulates economic activity through low real interest rates.
- ✘ The speed of the closing of the output gap in a context of more robust economic growth, and its possible effects on inflation in the non-tradable sector.
- ✘ The effect of the appreciation during the first quarter on tradable inflation.
- ✘ The expected trend in the exchange rate during the rest of the year and 2005, and its effect on the inflation of tradables and inflation expectations.
- ✘ The possible emergence of cost pressures associated with increases in the international raw materials prices and possible increases in the costs of some domestic inputs.

A synthesis of the expected trend in these variables in the short and medium term is given below.

#### A. International context, external demand, and exchange rate

The growth outlook for 2004 for several of Colombia's trading partners has improved in relation to the projections made in the last report (Table 1). The improvement in the terms of trade is expected to continue, fueled by strengthening world demand.

Taking into account the more favorable external environment, the balance-of-payments scenarios for 2004 show 11.2% growth (in dollars) of total exports (against 9.8% in 2003), and 7.8% growth of non-traditional exports (excluding gold and emeralds), against -3.2% in 2003. On the other side, imports grow 15.2% (compared with 9.8% in 2003) due to higher economic growth, and the trend in the exchange rate which appreciates on average about 6.0% (in nominal terms), and about 7.2% in real terms.

TABLE 1  
GROWTH FORECASTS  
(PERCENTAGE)

	Observed 2003	Forecast made on:			
		April 5, 2004		January 8, 2004	
		2004	2005	2004	2005
<b>Developed countries</b>					
United States	3.1	4.6	3.7	3.1	4.4
Eurozone	0.4	1.8	2.5	1.0	2.4
Japan	2.7	2.8	1.6	2.7	2.1
<b>Latin America</b>					
Argentina	8.7	6.7	4.1	7.3	5.3
Brazil	(0.2)	3.4	3.6	0.1	3.4
Chile	3.3	4.7	5.1	3.3	4.6
Mexico	1.3	3.2	3.6	1.2	3.4
Perú	4.0	3.9	3.8	4.0	3.9
Ecuador	2.6	4.7	3.8	2.6	3.9
Venezuela	(9.2)	7.1	4.2	(10.5)	6.4
<b>Colombia's main trading partners (*)</b>					
	1.7	4.2	3.5	1.7	4.1

(\*) Growth weighted by total exports accumulated from January to October 2003. Represents 78% of total exports.  
Source: Observed IMF and Datastream forecasts.

The exchange rate forecast, however, is still uncertain: in a favorable scenario with growth of external demand, favorable terms of trade, and larger flows of private capital, the exchange rate could appreciate further or depreciate slightly. This would happen with modest increases in external interest rates and in the absence of country-risk premium shocks. On the other hand, in a less favorable scenario with a sharp rise in external rates, the conditions in the external sector could deteriorate (affecting the country premium, external demand, and the terms of trade). In these circumstances, the exchange rate depreciates more rapidly this year, and nominal and real devaluation in 2005 is higher.

The central scenario used in this report assumes a higher probability of a gradual and ordered adjustment in external interest rates, which does not greatly affect capital flows into emerging economies.

## B. Domestic demand and economic growth

In this international scenario, the economy continues to consolidate its recovery. The tradable sectors (mining, agriculture and manufacturing industry) benefit from the improved conditions in the external sector, and their growth in 2004 will probably be higher than last year (3.7%), despite the appreciation of the real exchange rate, which continues at high levels.

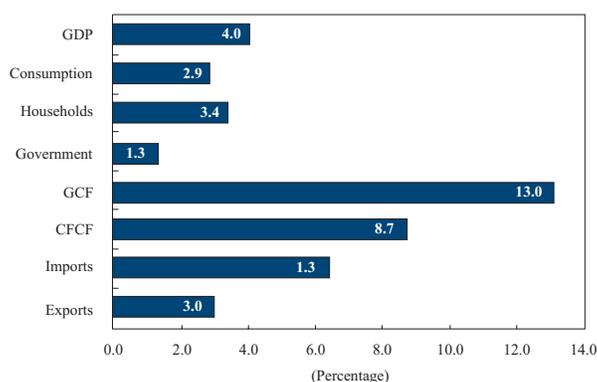
On the demand side, growth of domestic demand continues stimulating production in non-tradable sectors. The buoyancy of domestic demand in 2004 continues,

based on growth of investment, stimulated by factors of confidence and improved expectations, as well as by the expansion of capacity utilization in various sectors, and by the possible positive effects of the tax incentive for reinvestment of earnings included in the last tax reform.

Along with the strong expansion of investment in 2004, the growth rate of consumption is also expected to recover. This report forecasts growth of household consumption of around 3.4%, the highest since 1995.

In this context, GDP grows 4.0% in 2004 (Figure 13), which would not result in higher levels of inflation of non-tradable goods because of the probable persistence of a negative output gap, as indicated in the previous section.

FIGURE 13  
GDP GROWTH IN 2004



GCF: gross capital formation (including change in inventories).  
GFCF: gross fixed capital formation.  
Source: DANE, Bank's own calculations.

#### IV. INFLATION FORECAST

For this report the short-term forecast (STF) for non-food inflation did not substantially change from the previous report. These forecasts, obtained from monthly time-series models and informative, non econometric models, produce non-food inflation of 5.7% and 5.5% in June and September, respectively. For food inflation, the STF to June is 5.1%, a slight increase from the previous report (5%). For September, the STF for food is 5.6%.

Based on these results, the STF for total inflation used in the transmission mechanisms model (TMM) is 5.6% and 5.7% in June and September. In the previous report, the STF for March was 5.4%.

As usual in the quarterly reports, uniequational structural models were also used. For annual inflation, the simple average of the predictions of these models gives total inflation of 5.3% in 2004. This prediction is 50 basis points (bp) lower than the last quarterly report. Using the combination of forecast methodology an even lower inflation (4.8%) is obtained. A new methodology for combining forecasts, which takes into account possible structural changes in inflation and which could be more reliable, produced an inflation of 5.5% for December 2004.

The TMM projections (Table 2) produce inflation rates of 5.7% for the end of 2004 and 4.9% for 2005, which are in line with the inflation target for this year and with the targeted range agreed by the Board for 2005 (between 3.5% and 5.5%), and consistent with stable interest rates in 2004 (certificate deposit rate, DTF, of 7.8% on average in the year). In 2005, however, the TMM suggests rises in interest rates in order to continue the downward trend in inflation in 2006. This result is related to the closing of the output gap in the next few quarters and to the predicted increase in external interest rates

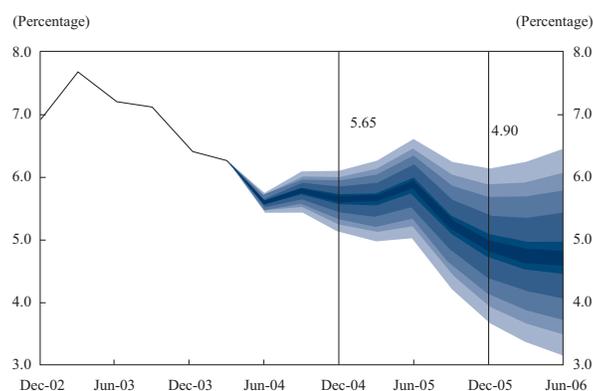
The balance of risks based on the TMM results, gives an 88% probability that inflation will end 2004 between 5% and 6% (Figure 14). For 2005, the probability of inflation below 5.5% is 79%.

TABLE 2  
RESULTS OF CENTRAL MODEL (TMM)  
(PERCENTAGE)

End of:	Inflation			Output Gap	DTF	Average annual devaluation
	Total	Non food	Food			
2004	5.65	5.68	5.58	(1.12)	8.16	(6.00)
2005	4.90	4.92	4.85	(0.86)	10.06	5.28
2006	4.72	4.71	4.76	(1.25)	11.02	11.32

Source: Banco de la República.

FIGURE 14  
INFLATION PROBABILITY  
DISTRIBUTION



INFLATION PREDICTION CONFIDENCE INTERVALS

End of:	Inflation ranges					
	< 4.0%	[4.0% - 4.5%]	[4.5% - 5.0%]	[5.0% - 5.5%]	[5.5% - 6.0%]	[6.0% - 6.5%]
2004	0.0	0.0	2.0	31.3	56.8	9.7
2005	10.7	18.0	25.7	23.7	14.4	5.7

Source: Banco de la República.

In relation to the base scenario presented in the December report, the TMM produced an increase in the 2004 inflation forecast, due largely to the introduction of a STF for September much higher than that produced by the TMM three months ago, especially for food inflation. The correction of the food forecasts occurred because, in general, the Bank's models tended to underestimate observed inflation in the first quarter. The adjustment of the TMM did not significantly change the result of total inflation to 2005 with respect to the December report.

## V. CONCLUSIONS

In general, inflation has followed the trends expected in the last report: tradable goods inflation declined consistent with the stabilization and later fall in the exchange rate, while non-tradables core inflation was unchanged below the target range. Only food inflation was higher than expected and, although in the next few months a downward correction is expected, the forecast for the year was revised upward (5.6% against 4.2% in the previous record).

Exchange appreciation was higher than forecast in the last report because of lower capital outflows by residents, portfolio inflows, and the ongoing improvement in export prices and volumes relative to projections. This trend in the exchange rate reduces the inflation forecasts, and results in inflation levels compatible with the ranges announced for the 2004 and 2005 targets, with lower interest rates than those projected in the December report. The continuous exchange rate appreciation in the Colombian economy since the end of last year opens the way for a loose monetary policy than the one considered in the December report. These conditions resulted in a 50 bp cut in the Bank's intervention rates in the first quarter of the year.

In the new inflation projections, based on the previous reductions in the policy rate, the path of the DTF rate projected by the TMM produces stable levels similar to the current ones, while the December report foresaw increases of 100 bp in 2004. However, in order to guarantee the downward inflation trend in the range announced for 2005 and 2006 (3.5% to 5.5%), the model projects increases in interest rates from next year. This result is related to the closing of the output gap over the next eight quarters and to the expected increase in external interest rates, especially in 2005. Given this trend in domestic interest rates, the model produces an 88% probability that inflation will end 2004 between 5% and 6%, and an 80% probability of inflation below 5.5% in 2005.

These scenarios assume a nominal average appreciation close to 6.0% in 2004 and an average depreciation of 5.0% in 2005, which would bring the nominal average exchange rate for that year close to 2,900 pesos per dollar. The 2004 projection includes the effect of the exchange rate intervention announced by the Board of the Bank of the Republic in its meeting of March 19. On that occasion the Board considered that the current episode of exchange rate appreciation was transitory, and that it would be prudent to make an additional accumulation of international reserves in case of possible reverses in capital flows, and abrupt adjustments in the exchange rate that could affect the future trend of inflation.

However, the movement of the exchange rate in 2004 and 2005 is one of the greatest sources of uncertainty in the macroeconomic forecasts. There is uncertainty

about the timing and size of the increase in the Federal Reserve rates, consistent with the sustained recovery of economic growth in the United States and with the disappearance of fears of disinflation in that economy. There are also doubts about the effect that these increases could have on capital flows into the emerging economies. This report assumes that the Federal Reserve raises its interest rates moderately in 2004, maintaining growth of external demand, a favorable level of the terms of trade, and net flows of private capital into Colombia. In 2005 much higher increases are projected in Treasury bond rates (around 200 bp).

The trend in the exchange rate in 2005 is critically dependent on the government's external borrowing policy. In the current forecast, net external borrowing by the non-financial public sector in 2005 is lower than the 2004 projection. However, in the same international scenario, if the government decides to increase its external borrowing, the trend in the exchange rate could vary substantially in relation to the base scenario (5.0% average nominal devaluation in 2005).

In the central scenario, which is the assumption used in this report, the Colombian economy continues to strengthen. Tradable goods production continues to grow in response to the favorable conditions of external demand. The recovery of domestic demand is maintained, as reflected in significant growth of production of non-tradable goods and services. These results are supported by the historically high level of the real exchange rate despite the recent appreciation, and the historically low levels of real interest rates. Accordingly, monetary conditions continue to stimulate aggregate expenditure and the gradual closure of the output gap.

The growth forecast for 2004 and 2005 (4.0%) does not result in higher levels of non-tradable goods inflation because of the persistence of a negative output gap. Although some indicators suggest a reduction in spare capacity in some sectors (such as manufacturing industry), other indicators, including the unemployment gap, indicate the persistence of spare capacity in the overall economy, especially in sectors intensive in unskilled labor. For the aggregate economy, after the Bank's recalculation of potential GDP, the average output gap in 2004 is -1.75% of potential GDP, higher than the estimate given in the last report (-1.36%).

The monetary policy stance over the next eight quarters will depend largely on the speed of reduction of the output gap in the context of faster economic growth and its possible effect on inflation in the non-tradable sectors, as well as on the expected trend in the exchange rate for the rest of 2004 and 2005 and its effect on tradables inflation and inflation expectations. Monetary policy must also take into account the possible emergence of cost pressures associated with increases in international prices of raw materials and the costs of some domestic inputs.

Based on these considerations, at its meeting of April 23, the Board decided not to change its intervention rates and announced a new options auction for US\$250 million to accumulate international reserves.

Board of Directors of Banco de la República