Inflation Report

March, 2001

Banco de la República

Presentation, summary and conclusions

Review of inflation to march 2001

✠ Annual inflation in the Consumer Price Index was 7.8% at the end of the first quarter of 2001, down by 0.3 percentage points on February (8.1%), and by 1.9 points on March 2000 (9.7%). It was the lowest annual rate in any March since 1969 (6.2%), inflation having fallen steadily from 9.0% last October.

✠ Lower annual inflation in March resulted from slower price increases in food, housing, education, and diverse expenditures. The housing group included, notably, a slower rise in utility charges in March than in February, and a minimal increase (0.7%) in housing occupation expenses. In contrast, inflation accelerated in health care, entertainment, and transport but remained relatively steady in clothing.

✠ The Consumer Price Index rose by 1.5% in March, driven mainly, as in recent months, by meat and dairy products and fuel prices. Bus fares and gas and fuel prices together accounted for more than 20% of inflation in March, while beef and milk contributed a little over 9%. The price of meat is expected to keep on rising in real terms all year long because the cattle-raising cycle is currently going through a holding-back stage that is sure to reduce supply. Lastly, potato prices, which usually rise in March, fell this year.

✠ Economic classification of the CPI basket shows tradables continuing to register a higher annual price rise (8.2%) than nontradables (7.4%), partly because of a relatively high devaluation in the previous 12 months. Lower inflation in nontradables was largely caused by slower growth in housing rents. In March, however, tradables as well as nontradables registered decreasing price growth.

✠ The four measures of core inflation (non-food CPI, inflation nucleus, trimmed mean, and asymmetric mean) averaged 7.8% at the end of the first quarter, 0.4 percentage points lower than in February. Leaving out the most volatile indicator (asymmetric mean) gives an average core inflation of 8.3%, much the same as in February (8.2%). Out of the four indicators, only the inflation nucleus ran higher in March than in February.

✠ Producer inflation, measured as annual rise in the Producer Price Index, stood at 10.9% in March, 0.4 percentage points lower than in February (11.4%) and 2.8 points lower than a year earlier (13.7%). The breakdown by origin attributes this 12-month fall in producer inflation to imports, their price growth having declined from 18.7% in March 2000 to 12.5% a year later. The breakdown by industrial activity attributes it essentially to slower growth in agricultural prices: from 18.4% in March 2000 to 4.2% a year later.

✠ This Report presents for the first time the results of a standard model of transmission mechanisms, capable of forecasting inflation and growth simultaneously and also incorporating a policy rule. On information to March, the model forecasts an annual inflation of 8.2% by the fourth quarter of this year and of 4.2% by the end of 2002. This forecasting assumes that interbank interest rates in the second quarter will be much the same as the Banco de la República's current intervention rates. The main forecasts are accompanied by a risk balance with an upward bias resulting from the expected distribution of shocks in food prices and in devaluation. In this connection, lower-than-expected oil prices and oil-export volumes might produce current-account shocks in the course of the year, which could accelerate devaluation and hence adversely affect prices.

✠ Core inflation, as the average of the three more reliable indicators, is forecast to be 7.2% by December 2001, some 0.7 percentage points higher than was forecast last December. As the average of all four indicators, however, it is expected to be 6.7%, or 0.3 percentage points lower than forecast in the previous Report.

✠ Available indicators of real activity do not provide a clear picture of the present state of the economy. It is true that key indicators such as industrial output or retail sales slowed in the first quarter of this year relative to a year earlier. But it is also true that slower growth was in good measure caused by supply factors, such as the strike at Bavaria (a beverage producer) and reduced oil production. Moreover, imports, nontraditional exports, and other variables continued to improve in the first quarter, as did overall employment and, to a lesser extent, industrial employment, power consumption, and a number of variables connected with construction. Likewise, Fedesarrollo's survey figures to February reveal no significant trend breaks in such indicators as stocks and orders. So, if the effects of the above supply shocks are excluded, there is as yet no conclusive evidence of an actual slowdown in the first quarter or of an impending one in the coming months. Growth over the first half of the year can therefore still be expected to be consistent with an annual rate not much below the government's forecast. Since production levels are still low in several sectors and the estimated GDP gap is large, such growth should not generate any major inflationary pressures from demand over the next few months.

✠ At the end of March the monetary base's 20-month and 45-month averages exceeded the reference line's corresponding averages by 5.3% and 5.4% respectively. Deviation by the monetary base from its reference line over the first quarter is explained by a greater demand for cash than is envisaged in the reference line; this cash growth resulted from the transaction levy being raised and has produced no inflationary impact[*]. The Banco de la República's Board of Directors is presently considering necessary corrections to the monetary base's reference line. The financial system's overall loan portfolio continued to shrink up to March in both real and nominal terms, exclusively because of mortgage-loan behavior, for the non-mortgage portfolio continued to grow to March, showing an expansion in real terms for the first time since November 1998.

✠ As regards interest rates, the nominal deposit rate fell in March for the second month in a row, to 13.0%, down by 0.3 percentage points on February. Lending rates for common, preferential, and Treasury loans changed little from December 2000 to March, remaining far

[*] A preliminary reference line was submitted for consideration by the Board of Directors on March 9th. By the end of the month the monetary base's 20-month and 45-month moving averages were both slightly under this new line (1.0% and 0.5% respectively).

below rates for consumer loans and credit cards. At the end of March, the average lending rate including preferential loans was 19.0%, the same as in December. Over the same period the real deposit rate rose by 0.6 percentage points, to 4.8%, and the real lending rate (including preferential loans) edged up by 1.1 points, to 10.4%. The nominal interbank rate averaged 10.8% in March, 1.4 percentage points lower than in December 2000 and 0.5 points lower than in February. The interbank rate's March decline corresponded to a mid-month cut of 50 basis points in intervention rates.

✠ In early March the Board of Directors, taking into account satisfactory price-index behavior in the first two months of the year and forecasts for 2001 and 2002, and in view of the aim to promote growth in output and employment, decided to cut all the Banco de la República's intervention rates by 50 basis points. Accordingly, the Lombard expansion and contraction rates were set at 15.5% and 8.0% respectively, and the auction expansion and contraction rates at 11.5% and 10.5% respectively.

✠ Figures for March showed inflation continuing on a downward trend. Review of forecasts regarding inflation behavior during this year and next suggests that the 8% target for 20001 and the 6% target for 2002 can be reached with the current monetary stance, provided that the exchange rate remains reasonably stable. Technical analyses also indicate that the Banco de la República's present structure of intervention interest rates will be conducive to strengthening the economy's recovery. The Board of Directors did not therefore feel any further changes needed to be made to the Bank's structure of intervention rates. This decision should also help to contain capital flight from Colombia, such flight being particularly detrimental in today's situation of international turbulence. As stated in the Board of Directors' Report to Congress, the country's economy requires a strong injection of investment to stimulate aggregate demand, expand production capacity, and boost economic recovery.

The Board of Directors,

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Minister of Finance and Public Credit

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Carlos Caballero Argáez
Sergio Clavijo Vergara
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INFLATION REPORT

MARCH, 2001

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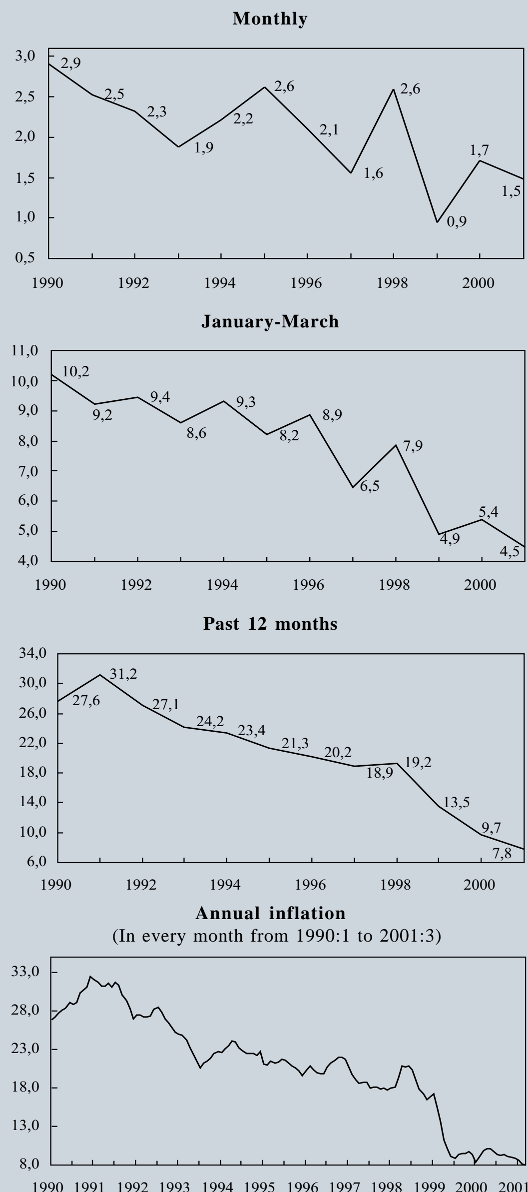
I

Price indices

A. Consumer price index

Figure 1
Consumer price index
(Percentage change to march)



Sources: National Statistics Agency (DANE). Calculations by Banco de la República.

1. Overall performance

Inflation measured as annual change in the Consumer Price Index (CPI) stood at 7.8% in March 2001, down by 1.9 percentage points on a year earlier (9.7%) and by 0.9 points on December 2000 (8.7%) (Figure 1 and Table 1). This was the lowest annual inflation in any March since 1969, when the rate was 6.2%. First-quarter growth in the CPI ran at 4.5% this year, 0.9 percentage points less than what it was last year (5.4%), while monthly growth was 1.5% in March, 0.2 percentage points less than in March 2000 (1.7%).

Core inflation as the average of four measures (non-food CPI, inflation nucleus, trimmed mean, and asymmetric mean)[1] came to 7.8% in March, a drop of 0.4 percentage points relative to February and of 0.2 points relative to December 2000. Leaving out the asymmetric mean because of its volatility, shows that core inflation as the average of three measures (8.3%) remained much the same as in February (8.2%) and 0.3 percentage points lower than in December (8.6%).

The only core-inflation indicator to show growth was the inflation nucleus, rising from 8.1% in February to 8.6% in March and thus above headline inflation for the second month in a row. This growth is attributable to a number of food items included in

[1] For a more detailed description of these core-inflation measures see Notes 3-6 of Table 1.

Table 1
Inflation indicators
(% Change to march)

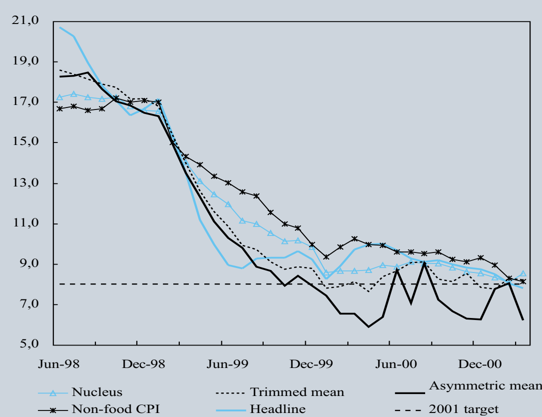
	Monthly			January-March			Annual		
	1999	**2000**	**2001**	**1999**	**2000**	**2001**	**1999**	**2000**	**2001**
I. CPI	0,9	1,7	1,5	4,9	5,4	4,5	13,5	9,7	7,8
Food	0,3	2,0	1,6	6,4	7,4	7,1	11,7	8,5	7,1
Housing	0,9	1,0	0,8	2,2	2,2	1,6	14,0	5,9	4,2
Clothing	0,3	0,2	0,3	1,4	0,7	0,7	7,1	2,5	3,5
Health care	3,4	2,0	2,4	6,3	4,2	5,0	18,6	12,9	11,1
Education	0,5	2,1	1,7	10,3	7,6	6,3	13,8	9,6	8,2
Entertainment, culture, recreation	1,2	0,7	1,3	3,8	4,8	4,2	n.d.	3,4	11,1
Transport	1,0	1,9	2,7	6,1	6,6	5,6	14,2	19,2	15,2
Diverse expenditures	2,8	3,8	1,5	7,4	10,4	4,8	21,7	19,5	9,3
II. Core inflation 1/	1,2	1,6	1,4	4,3	4,6	3,4	14,0	8,4	7,8
Non-food CPI **2/**	1,2	1,6	1,4	4,3	4,6	3,4	14,3	10,2	8,1
Nucleus **3/**							14,1	8,7	8,6
Trimmed mean **4/**							14,0	8,1	8,2
Asymmetric mean **5/**							13,5	6,6	6,2
III. PPI	(0,2)	1,4	1,0	3,8	4,7	4,6	9,4	13,7	10,9
By economic use or destination									
Intermediate consumption	(0,5)	1,0	1,2	2,0	2,7	4,1	6,6	13,1	12,4
Final consumption	(0,4)	2,0	0,8	5,9	7,5	5,5	12,3	14,0	8,8
Capital goods	1,3	0,9	1,0	3,2	4,0	3,5	11,9	16,7	10,2
Building materials	1,7	1,1	0,5	5,8	2,9	4,3	12,6	11,1	14,4
By origin									
Domestically produced and consumed	(0,2)	1,5	1,0	4,2	5,1	5,0	9,5	12,6	10,4
Imported	(0,4)	0,7	1,0	1,0	3,3	3,4	9,3	18,7	12,5
Exported **6/**	(1,6)	0,5	0,1	(5,1)	5,5	2,0	(4,3)	40,9	2,8
By industrial activity (ISIC)									
Farming, forestry, fishing	(2,9)	3,5	1,2	3,2	9,3	7,5	2,5	18,4	4,2
Mining	1,5	0,0	(4,7)	3,3	4,4	4,2	(6,2)	32,6	27,0
Manufacturing	0,7	0,8	1,1	4,0	3,5	3,9	12,6	12,1	12,4

n.a. Not available.
1/ The average of the four core-inflation indicators calculated by the Banco de la República.
2/ CPI excluding all food-group items.
3/ CPI excluding 20% of the weight of items showing the greatest price volatility between January 1990 and April 1999.
4/ The weighted mean trimmed by 5% in each tail, calculated by the CPI-60 methodology. See Luis Fernando Melo et al. Un análisis de las medidas de inflación básica para Colombia, mimeo 1997, Banco de la República.
5/ The asymmetric mean trimmed by 15% in the left tail and 13% in the right tail, calculated by the CPI-60 methodology.
6/ The total PPI does not include exported goods. It is calculated from the weighted sum of domestically produced and consumed goods and imported goods.
Sources: Economic Studies Division (SGEE) of the Banco de la República, PPI and CPI Lists and DANE.

the inflation nucleus that are not normally very volatile but whose prices have recently been climbing significantly at annual rates: sugar (32.2%), pasteurized milk (14.9%), powdered milk for infants (12.9%), chicken (12.4%), dry rice (10.4), and others. Apart from the nucleus, another indicator outpacing headline inflation in March was the non-food CPI (8.1%) (Table 1 and Figure 2).

The city with the highest price rise in the 12 months to March was Cúcuta (9.5%), followed by Pasto, Barranquilla, Montería and Cartagena (8.8% individually), while the lowest rises occurred in Villavicencio (7.2%) and Medellín (7.3%).

Figure 2
Headline and core inflation
1998:6 - 2001:3
(Annual percentage change)



Source: DANE. Calculations by Banco de la República.

Table 2
Consumer price index, total and by city
(Percentage change to March)

	Monthly			January-Marc			Annual		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
Total	0,9	1,7	1,5	4,9	5,4	4,5	13,5	9,7	7,8
Bogotá	0,9	1,9	1,6	5,4	5,7	4,6	13,6	9,5	7,7
Medellín	0,9	1,7	1,5	5,2	5,6	4,3	13,8	10,4	7,3
Cali	1,0	1,3	1,5	3,6	4,5	4,1	12,9	8,5	7,6
Barranquilla	0,3	1,0	1,3	4,2	4,2	4,9	12,2	9,7	8,8
Bucaramanga	0,9	2,6	1,2	4,9	6,5	4,7	11,7	11,8	7,7
Manizales	1,2	1,6	1,5	5,2	5,0	4,8	14,3	10,1	8,0
Pasto	1,9	2,7	0,9	4,9	6,3	4,6	17,5	12,4	8,8
Pereira	1,3	1,4	0,7	4,6	4,4	3,6	12,8	10,2	8,1
Cúcuta	0,9	1,3	1,6	4,4	6,0	5,0	13,4	11,7	9,5
Montería	1,5	1,5	1,8	5,5	5,5	4,6	14,1	8,7	8,8
Neiva	1,2	1,2	1,5	4,7	5,2	5,2	12,0	9,4	8,5
Cartagena	1,1	1,2	1,9	5,5	5,4	5,6	13,7	7,8	8,8
Villavicencio	1,2	1,8	1,3	5,2	5,6	5,1	11,0	8,4	7,2

Source: DANE's Lists. Calculations by Banco de la República, SGEE.

2. Behavior of main components

Over the first quarter, the CPI groups with higher-than-average inflation for the quarter were food (7.1%), education (6.3%), transport (5.6%), and health care (5.0%). The food group saw price surges in potatoes (63.9%) and sweet tomatoes (43.5%). The education group was affected by price rises in exercise books (8.7%) and in fees for higher and specialized education (7.5%). The highest increases in transport and health care occurred in bus fares (9.7%) and the 'other drugs' item (8.7%) respectively.

The items that contributed most to first-quarter inflation were farm produce and some services. Potatoes accounted for 16.0% of accumulated inflation over the first three months of the year and milk and meat for 8.5%, while bus fares and residential phone charges were responsible for 8.8% (Table 3).

Meat prices climbed by 5.0% over the first quarter. The National Cattlemen's Federation attributes this significant rise to several causes. First, the seasonal pattern of the series usually involves a considerable rise in cattle prices in February and March of a typical year. Second, an increase in illegal meat exports to Venezuela, stimulated by higher prices there in recent months, pushed up the price of meat in the Colombian cities of Cúcuta and Bucaramanga. Lastly, the cattle-raising cycle is presently in the holding-back stage. From mid-1998 to mid-1999 there was a fall in the real price per kilo of cattle on the hoof, reflecting the clearance stage; this stage seems to have ended by 2000, resulting in a slight rise in the real price of cattle on the hoof. The holding-back stage is expected to be in full swing in 2001 and should push real prices up, with the nominal price of meat likely to rise by more than 15%.

Although food prices picked up strongly in the first three months of the year, they did so at a slower pace than last year, largely because a more moderate rise in the price of potatoes made up for the climb in meat and milk prices.

In the 12 months to March, prices grew by more than overall inflation in transport, health care, culture and recreation, diverse expenditures, and education (Table 1). The highest growth occurred in the

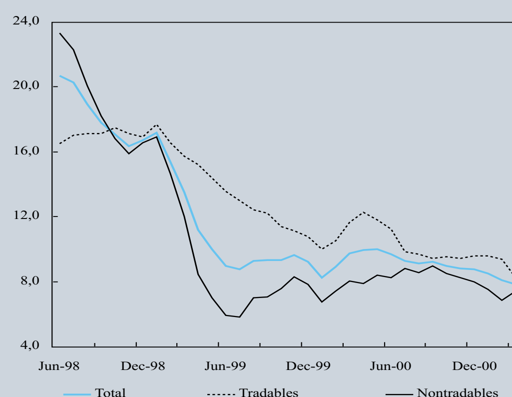
TABLE 3
GREATEST CONTRIBUTORS TO FIRST-QUARTER
CONSUMER INFLATION, 2001

Item	Weight	Variation	Contribution	
			Points	Percentaje
Total	100,0	4,5	4,5	100,0
Potatoes	1,0	63,9	0,7	15,9
Bus fares	1,9	9,7	0,2	5,0
Milk	2,3	8,2	0,2	4,5
Beef	4,0	5,1	0,2	4,0
Residential phone charges	1,4	8,6	0,2	3,8
Other	89,5	3,4	3,0	66,8

Source: DANE's Lists. Calculations by Banco de la República, SGEE.

transport group (15.2%), caused by sharply rising fuel prices (30.9%, and in and air fares (20.4%). In health care the 11.1% rise was mainly produced by drugs and related items (15.3%). It is worth noting that health care was the only CPI group with a higher 12-month inflation in March than last December (10.3%). In the amusement, culture and recreation group (11.1%), the strongest expansion was in newspaper prices (21.0%). In diverse expenditures (9.3%, the biggest impact came from oral-hygiene articles (19.4%), while the education group (8.2%) saw the biggest surge in the price of exercise books (30.0%). Lastly, in March, as in December, 12-month inflation was lowest in clothing (3.5%), housing (4.2%), and food (7.1%).

FIGURE 3
CPI TRADABLES AND NONTRADABLES
1998:6 - 2001:3
(ANNUAL PERCENTAGE CHANGE)



Source: DANE. Calculations by Banco de la República.

3. Alternate classification: inflation speeding or slowing groups

Table 4 presents an alternate breakdown of the CPI basket to identify factors that accelerated inflation. This classification divides the basket into tradables[2] and nontradables, with the latter further divided into indexed,[3] flexible[4] and cyclical[5] items. Figure 3

[2] Tradables: textiles, footwear, tobacco, beverages, cereals, dairy produce, cooking fats, drugs, vehicles, electrical appliances, etc.

[3] Indexed items: rent, fuel, utilities, education, transport, and other items.

[4] Flexible items: root crops, plantains, vegetables, legumes, and fruit.

[5] Cyclical items: meat, and meat products.

TABLE 4
CONSUMER PRICE INDEX, 2000-2001
(TO MARCH)

Item	12-month change		Contribution to change		Contribn. to infln. reducn. (*)
	2000	2001	2000	2001	2001-2000 Points
Total	9,7	7,8	9,7	7,8	(1,9)
Tradables	11,6	8,2	5,5	4,0	(1,5)
Nontradables	8,0	7,4	4,2	3,8	(0,4)
Indexed	9,0	7,8	3,6	3,1	(0,5)
Flexibles	4,3	4,2	0,3	0,3	(0,0)
Cyclicals	5,7	9,8	0,3	0,4	0,2

(*) Each item's contribution to inflation reduction is the difference between its contributions to inflation in 2000 and 2001. Any apparent lack of consistency between figures is caused by rounding.
Sources: DANE's Lists. Calculations by Banco de la República, SGEE.

shows that annual price growth in tradables continued to outpace headline inflation over the first quarter, in an unbroken trend that started in early 1999.

As explained in previous Reports, this trend is probably connected with the peso's strong devaluation in the past two years. Inflation in tradables did however fall in the first quarter (from an annual rate of 10.2% in December to 8.2% in Marc)and had been doing so during last year, registering a decline of 3.4 percentage points in the 12 months to March. that accounted for 80.0% of the drop in annual consumer inflation over this period.

Annual inflation in nontradables edged down by 0.4 percentage points in the first quarter, to 7.4% in March, running below headline inflation over the whole quarter for the same reasons as in 2000: very slow growth in housing rents, and lower inflationary pressure from farm produce (root crops, fruit and vegetables) (Figure 4).

In the 12 months to March price growth in nontradables declined by 0.6%, causing a 20% fall in inflation over that period. Among nontradables, indexed items helped to slow down inflation whereas cyclicals helped to speed it up.

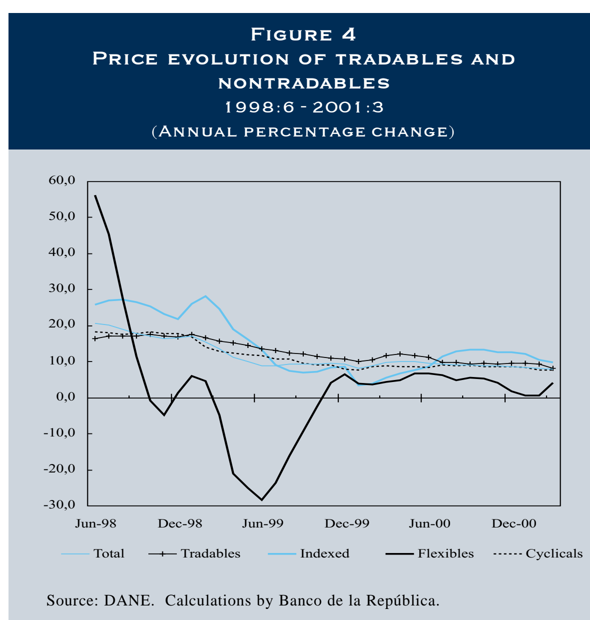


FIGURE 4
PRICE EVOLUTION OF TRADABLES AND NONTRADABLES
1998:6 - 2001:3
(ANNUAL PERCENTAGE CHANGE)

Source: DANE. Calculations by Banco de la República.

B. PRODUCER PRICE INDEX

General behavior

The Producer Price Index (PPI) registered a 12-month growth of 10.9% in March, much the same as in December (11.0%) but 2.8 percentage points lower

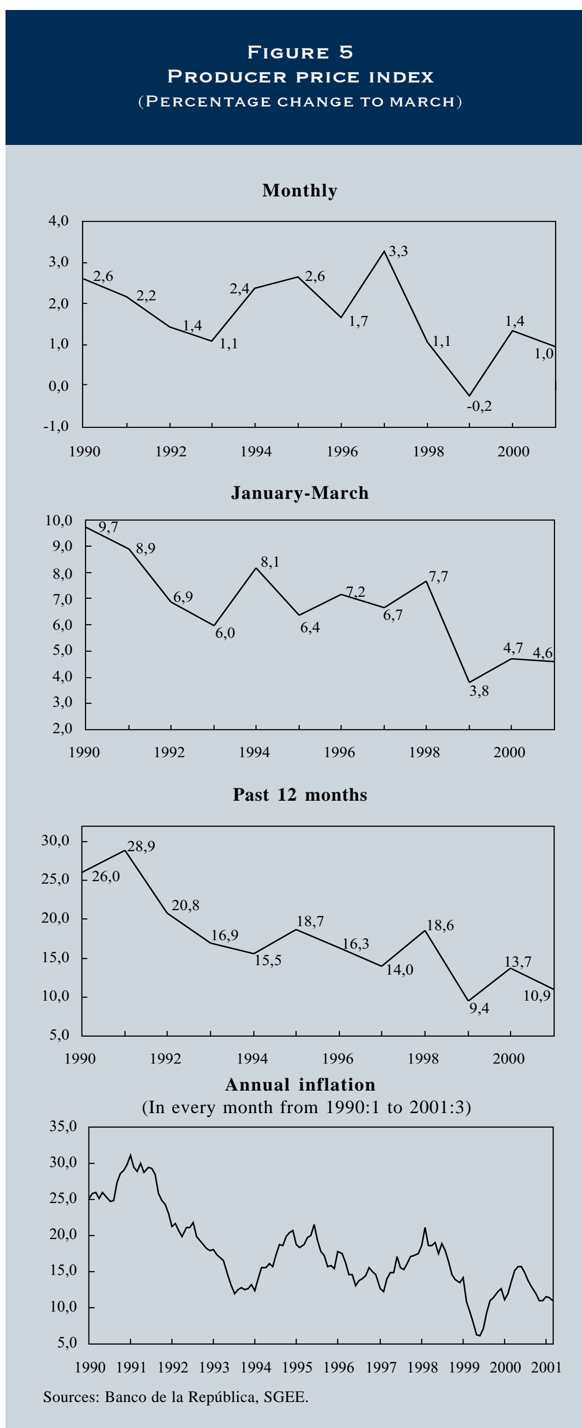


FIGURE 5
PRODUCER PRICE INDEX
(PERCENTAGE CHANGE TO MARCH)

Sources: Banco de la República, SGEE.

than in March 2000 (13.7%). Its first-quarter rise this year was 4.6%, also similar to last year's (4.7%), while its monthly growth in March was 1.0%, down from 1.4% a year earlier (Table 1 and Figure 5).

Breakdown of producer inflation by origin of goods shows a 12.5% rise in import prices in the 12 months to March, the same rate as in December but considerably lower than in March 2000 (18.7%) (Table 1). The import items with the steepest price rises were ethyl alcohol (44.3%) and metal products for structural use (38.5%). Domestically produced and consumed goods ended the first quarter with a 12-month inflation of 10.4%, much the same rate as in December (10.6%) but lower than a year earlier (12.6%).

PPI breakdown by ISIC economic activity shows that in March of this year the highest 12-month inflation was in mining, 27.0%. This rate of mining inflation was much the same as in December (27.3%) but lower than in March 2000 (32.6%); it was caused by sharp price rises in natural gas (57.3%) and crude oil (38.6%). Manufacturing prices increased by 12.4% in the 12 months to the end of the first quarter, a similar rate to those registered three and twelve months earlier. In this group the strongest price growth was in starch and starch products (76.9%) and in primary forms of synthetic rubber (38.2%). Lastly, the farming, fishing and forestry group displayed the lowest 12-month inflation in March 2001: 4.2%, down from 18.4% a year earlier.

II

Determinants of inflation

A. Monetary aggregates, interest and exchange rates

1. Monetary-policy measures

Over the first quarter, monetary-base demand exceeded the levels contemplated in the reference line, largely because cash demand grew faster than was envisaged in the line. This unexpected expansion in cash demand was connected with the financial-transactions levy.

When the reference line for 2001 was designed, no change in the levy was expected from the impending tax reform. In the event, the levy was raised from two to three per thousand and affected demand for different kinds of deposits and cash during the first quarter, altering the expected behavior of monetary-base demand. The Bank's Board of Directors considered that this situation caused no inflationary impact, for it reflected a permanent reduction in the speed of circulation of money[6].

At the beginning of January the Board modified the Lombard rates by lowering the expansion rate from 17.0% to 16.0% and raising the contraction rate from 7.0% to 8.5%, to reduce potential interest-rate volatility in the interbank market. The one-day average REPO limit was set at 957 billion pesos in January, 560 billion in February, and 448 billion in March; the respective utilization levels reached 84.0%, 71.0% and 52.0%. Moreover, a 200-billion-peso auction for one-day contraction operations was opened in March. In view of the satisfactory trend in inflation, the Board also decided in March to cut all the Bank's intervention rates by half a point. Thus the Lombard expansion and contraction rates dropped respectively to 15.5% and 8.0%, and the auction expansion and contraction rates to 11.5% and 10.5% respectively.

At the beginning of the year the Bank's Board of Directors also made a number of institutional changes concerning the operation of monetary policy. Under the new arrangement, the Committee for Monetary and Exchange Intervention (CIMC) was authorized by the Board to determine each month the level of primary liquidity consistent with projected monetary-base demand and sources of supply. Likewise, the Board set up an Intervention Operating Committee (COI) charged with modifying liquidity levels when supply sources varied significantly from initial projections.

2. Monetary and credit aggregates

The behavior of the monetary aggregates is analyzed below by examining movements in the monetary base, M1 money supply, broad money M3, and the financial system's loan balance.

[6] On March 9 a new, preliminary reference line was submitted for consideration by the Board, and by the end of the month the 20-month and 45-month moving averages stood slightly below this new line (1.0% and 0.5% respectively).

Monetary base

On March 30th the monetary base amounted to 8,819 billion pesos, with a 12-month growth rate of 23.6%, and with the base's 20-month and 45-month moving averages exceeding the reference line's by 5.3% and 5.4% respectively (Figure 6). These deviations from the reference line resulted from the average cash balance growing at a faster pace in March (27.8% annual rate) than was implicitly envisaged in the reference line (15.7%), a persistent situation throughout the first quarter.

The monetary base's average balance expanded by 20.8% in the 12 months to March, up by 3.6 percentage points on the rate to December. Breakdown of the monetary base into its uses shows the rise to have come from stronger growth between December and March in both cash (from 26.7% to 27.8%) and reserves (from 0.7% to 7.9%)(Figure 7).

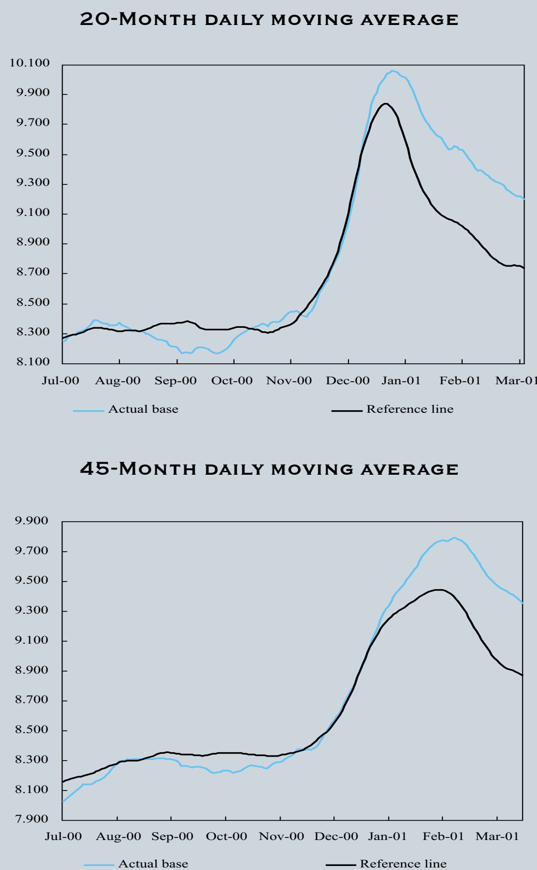
M1 money supply

The M1 balance on March 30th stood at 13,854 billion pesos, with a 12-month growth of 17.5% and a first-quarter variation of -17.4%. Annual growth in M1's average balance plummeted from 32.0% in December to 17.8% in March, owing to a sharp fall in current- account expansion (from 36.5% to 10.3%) and despite faster growth in cash holdings as indicated above (Figure 8).

M3

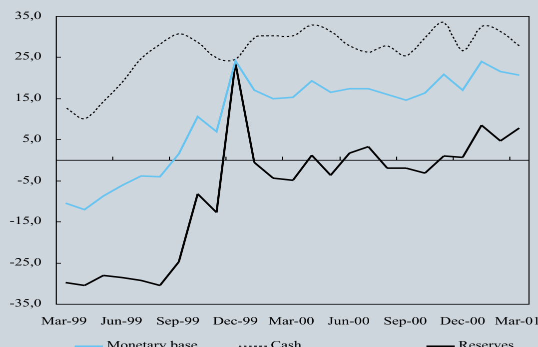
M3, the broader measure of money supply, showed a balance of 61,493 billion pesos on March 30th, with a 12-month growth rate of 5.8% (Figure 9). Annual growth in M3's average balance was higher in March (5.9%) than in December (3.0%), as a result of greater expansion both in liabilities subject to reserves (3.9% up from 0.6% in December) and in cash holdings. The rising trend in such liabilities was itself largely caused by faster growth in CDs and slower contraction in savings accounts and bonds. It is worth noting that positive growth in CDs over the first quarter seems to be a trend break in this series, which had been contracting since February 2000. (Figures 10 and 11).

FIGURE 6
MONETARY BASE AND REFERENCE LINE
(BILLIONS OF PESOS)



Source: Banco de la República, SGEE.

FIGURE 7
MONETARY BASE AND ITS USES
(ANNUAL % CHANGE IN MONTHLY AVERAGE)



Source: Banco de la República, SGEE.

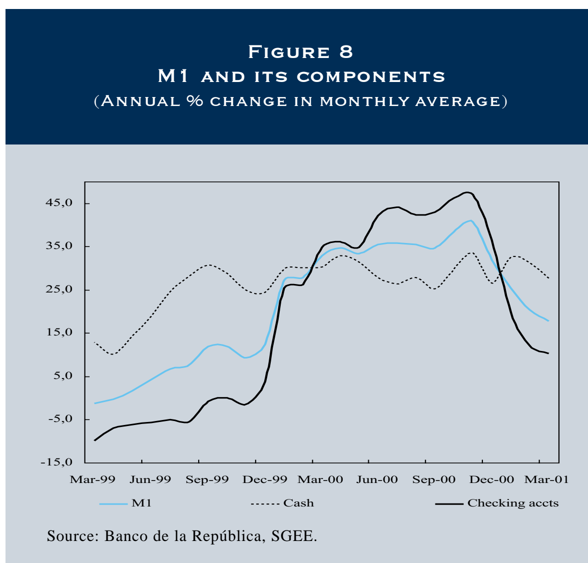


Figure 8
M1 and its components
(Annual % change in monthly average)

Source: Banco de la República, SGEE.

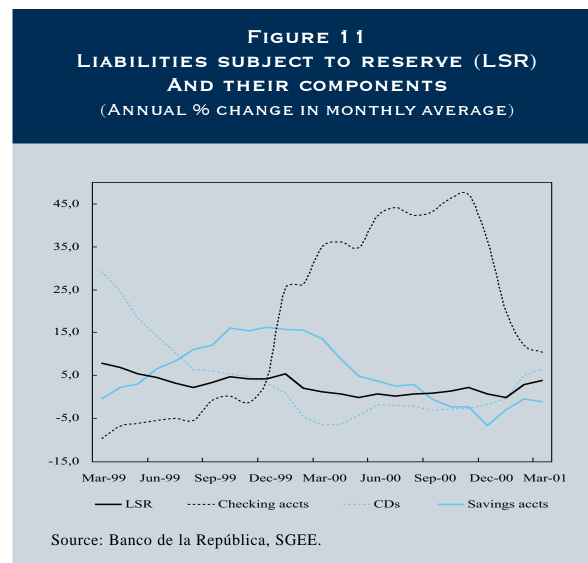


Figure 11
Liabilities subject to reserve (LSR) and their components
(Annual % change in monthly average)

Source: Banco de la República, SGEE.

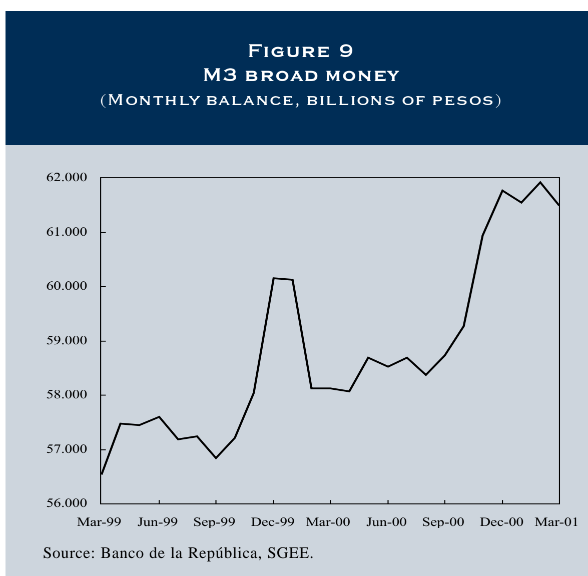


Figure 9
M3 broad money
(Monthly balance, billions of pesos)

Source: Banco de la República, SGEE.

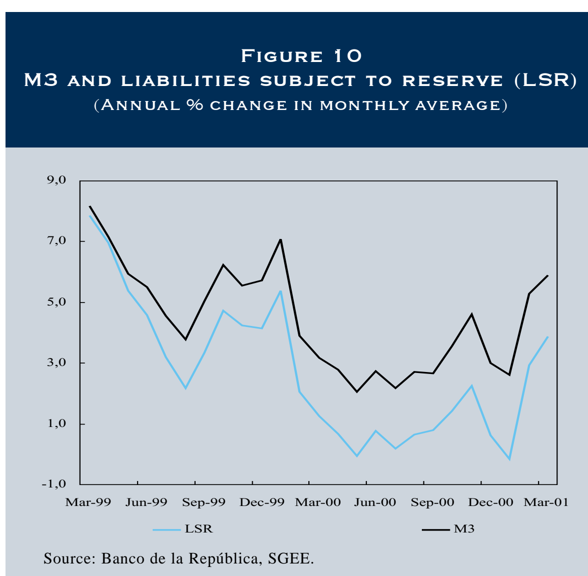


Figure 10
M3 and liabilities subject to reserve (LSR)
(Annual % change in monthly average)

Source: Banco de la República, SGEE.

The average M3 multiplier rose from 6.121 to 6.767 between December and March, recovering ground lost over the fourth quarter of 2000. This behavior was connected with a decline in both the cash ratio (from 0.126 to 0.113) and the reserve ratio (from 0.058 to 0.052) (Figure 12).

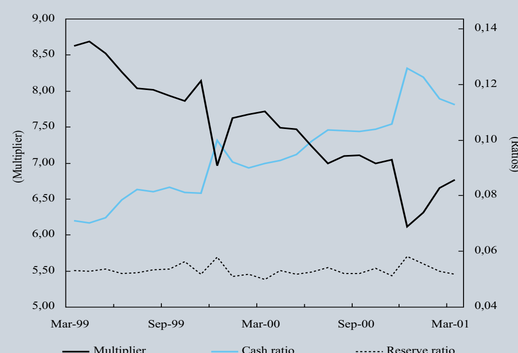
Credit

The financial system's overall net balance of local- and foreign- currency loans amounted to 45,656 billion pesos on March 30th, with an annual contraction of -4.9% and a first-quarter shrinkage of -1.0%. Annual contraction in local-currency loans was -3.7%; in foreign-currency loans -17.4%; and in the dollar equivalent of foreign-currency loans -30.3%.

The average gross nominal balance of local-currency loans held by all financial intermediaries shrank at a lower annual rate in March (-2.9%) than in December (-7.1%). Leaving out the mortgage banks reveals that the balance held by the rest of the system grew at a faster pace: 9.3%, up from 6.8%. The balance held by the mortgage banks contracted more slowly: by -18.4%, compared with -23.5% in December (Figure 13).

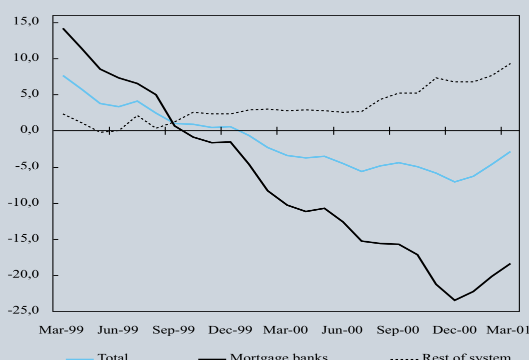
In real terms, there was weaker contraction in March compared with December in the gross local-currency loan balance of both the financial system as a whole

Figure 12
M3 multiplier



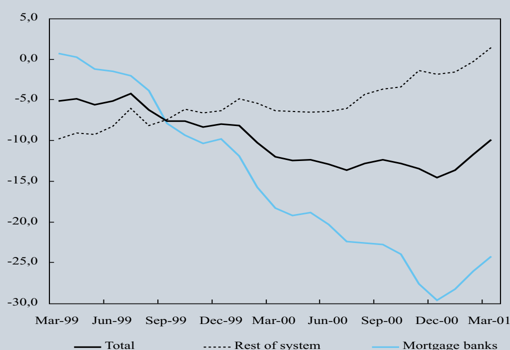
Source: Banco de la República, SGEE.

Figure 13
Gross nominal local-currency loan balance
Financial system excluding FEN
(Annual % change in monthly average)



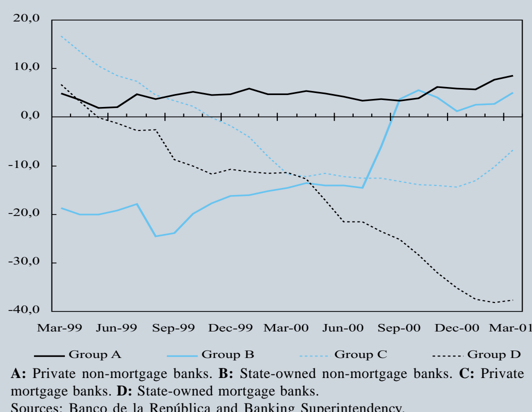
Sources: Banco de la República and Banking Superintendency.

Figure 14
Gross real local-currency loan balance
Financial system excluding FEN
(Annual % change in monthly average)



Sources: Banco de la República and Banking Superintendency.

Figure 15
Total net local-currency loan balance
by type of intermediary
(Annual % change in monthly average)



A: Private non-mortgage banks. **B:** State-owned non-mortgage banks. **C:** Private mortgage banks. **D:** State-owned mortgage banks.
Sources: Banco de la República and Banking Superintendency.

(-9.9%, down from -14.5%) and the mortgage banks (-24.3%, down from -29.6%), while the balance of the financial system excluding mortgage banks actually increased (by 1.4%) for the first time since October 1998 (Figure 14).

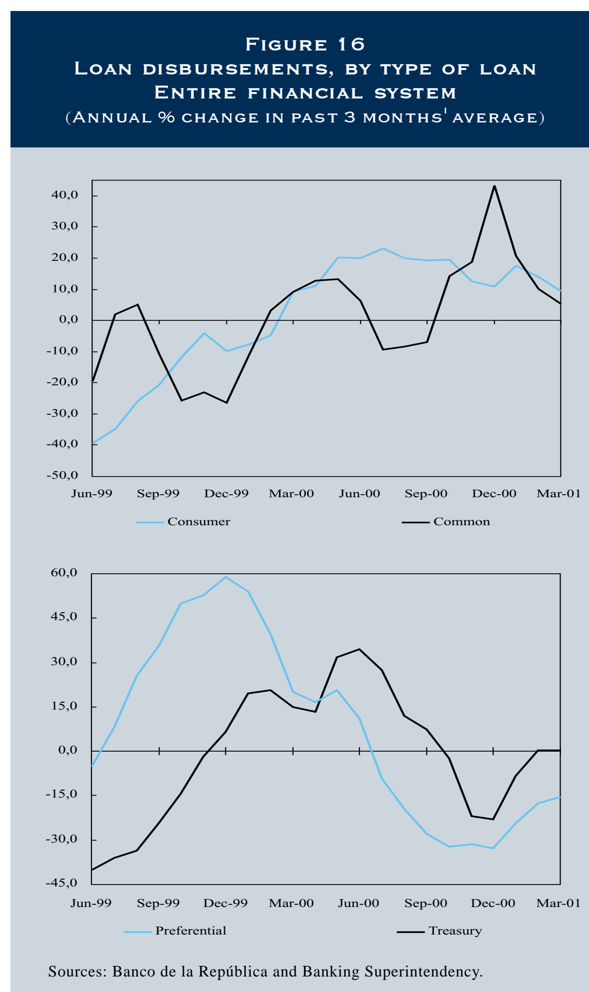
A breakdown by groups of financial intermediaries reveals higher annual growth in March compared with December in the average non-mortgage loan balance of both private institutions (8.6%, up from 5.9%) and state-owned entities (5.0%, up from 1.2%). Over the same period private mortgage banks registered slower contraction in their loan balance (-6.7&, down from -14-4%). In contrast, state-owned mortgage banks saw their loan balance shrinking more rapidly, as in the past several months. (Figure 15)

It is important to point out that the portfolio behavior described above can be partly explained by the statistical effect of loan removals from the financial intermediaries' balance sheets. These removals were brought about by the liquidation of a number of financial entities, the writing-down of unproductive assets, reductions by reason of property received in payment, portfolio securitizations and sales to institutions outside the system, and recalculations of mortgage loans. Table 5 presents an estimation of the portfolio's behavior if such removals had not taken place. In this way a better idea is obtained of the perfor-

mance of new loans extended by the financial system. In contrast to the gross portfolio, this corrected portfolio has been expanding in nominal terms since January 2000, at annual rates ranging between 3.1% and 7.0%. On the basis of these figures, the gross local-currency portfolio would have shown a 2.5% annual growth in February, higher than in December and January (Table 5).

Lastly, Figure 16 shows annual variations in disbursements by the entire financial system, by type of loan, excluding credit-card and interbank loans. Annual growth in consumer-loan[7] disbursements slackened in the first quarter of this year (9.5%) relative to the fourth quarter of 2000 (10.8%). Over the same period common-loan disbursements declined sharply in growth (from 43.2% to 5.2%), while disbursements of preferential loans shrank more slowly (from -32.7% to -15.4%). Treasury loans[8] expanded by O.4% in the first quarter, after a contraction of 23% in the previous quarter.

Figure 16
Loan disbursements, by type of loan
Entire financial system
(Annual % change in past 3 months' average)

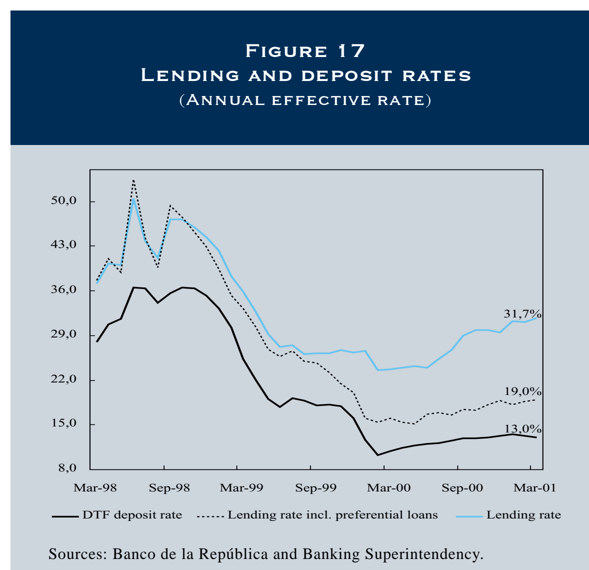


Sources: Banco de la República and Banking Superintendency.

3. Interest rates

At the end of March 2001 the average DTF deposit rate stood at 13.0% (O.3 percentage points lower than in December), while the average lending rate reported by the Banking Superintendency ran at 31.7% (2.3 points up on December), and the lending rate including preferential loans was 19.9%[9] (having remained stable over the first quarter) (Figure 17). The difference between the Banking Superintendency's lending rate and the DTF deposit rate was 18.7 percentage points, up by 2.6 points on December and again the highest since 1986 (Figure 18). Over the past eighteen months the gap between lending and deposit rates has run parallel with the ex-post

Figure 17
Lending and deposit rates
(Annual effective rate)



Sources: Banco de la República and Banking Superintendency.

intermediation spread calculated by the Banking Association, which has been rising almost without a break since January 2000. On the latest information

[7] Consumer loans are made for amounts of up to 300 times the monthly minimum wage, while common loans are for higher amounts.

[8] Both Treasury and preferential loans are for corporate clients. Treasury loans are made for up to 30 days, preferential loans for longer periods.

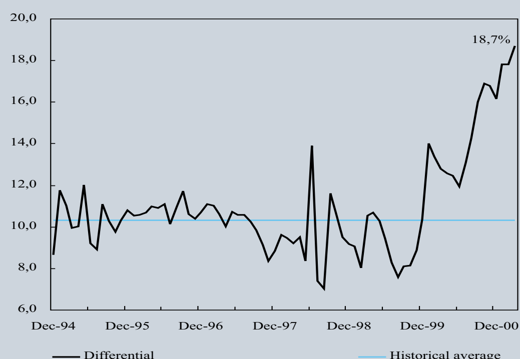
[9] For greater information on calculation of this rate, see the Board of Directors' March 2001 Report to Congress.

Table 5
Financial system's adjusted gross local-currency loan portfolio 1/
(Millions of pesos)

Períod		Gross portfolio 2/ M/N (a)	Change %	Loans removed 3/ M/N (b)	Change %	Law 546 treasury paper (c)	Corrected gross portfolio (d)	Change %
1998	Dec.	46.734.905		4.169.482			50.904.387	
1999	Jan.	46.739.081		4.573.703			51.312.784	
	Feb.	46.710.313		4.734.359			51.444.672	
	Mar.	46.931.283		5.024.443			51.955.725	
	Apr.	46.511.564		5.028.112			51.539.676	
	May.	46.625.671		5.243.263			51.868.934	
	Jun.	47.106.731		5.454.880			52.561.611	
	Jul.	46.496.683		6.055.746			52.552.429	
	Aug.	45.900.959		6.220.077			52.121.036	
	Sep.	46.814.400		6.358.948			53.173.348	
	Oct.	46.343.487		6.453.982			52.797.468	
	Nov.	47.190.023		6.491.439			53.681.462	
	Dec.	47.230.673	1,1	7.231.853	73,4		54.462.526	7,0
2000	Jan.	46.107.279	(1,4)	7.530.062	64,6		53.637.341	4,5
	Feb.	45.444.189	(2,7)	7.608.283	60,7	188.984	53.241.456	3,5
	Mar.	44.908.963	(4,3)	7.842.072	56,1	1.009.811	53.760.845	3,5
	Apr.	45.047.163	(3,1)	7.735.471	53,8	1.424.182	54.206.815	5,2
	May.	44.330.299	(4,9)	8.533.174	62,7	1.554.655	54.418.128	4,9
	Jun.	44.405.167	(5,7)	8.549.994	56,7	1.606.548	54.561.709	3,8
	Jul.	44.396.256	(4,5)	8.358.096	38,0	1.888.354	54.642.705	4,0
	Aug.	43.866.250	(4,4)	8.411.890	35,2	1.875.198	54.153.338	3,9
	Sep.	44.313.825	(5,3)	8.800.999	38,4	1.865.097	54.979.921	3,4
	Oct. **4/**	43.722.658	(5,7)	10.274.021	59,2	1.859.460	55.856.139	5,8
	Nov.	43.725.868	(7,3)	10.179.676	56,8	1.888.094	55.793.637	3,9
	Dec.	44.026.625	(6,8)	10.229.230	41,4	1.879.428	56.135.283	3,1
2001	Jan.	43.641.768	(5,3)	10.150.433	34,8	1.873.579	55.665.780	3,8
	Feb.	43.594.076	(4,1)	10.085.970	32,6	1.939.551	55.619.598	4,5

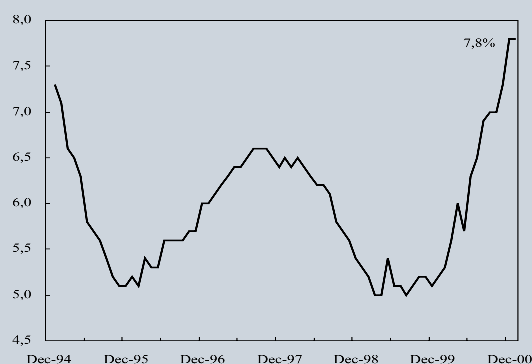
(d) = (a) + (b) + (c).
Note: The loans-removed series was revised in january 2000 on new data from the BCH (State-Owned Mortgage Bank). Moreover, on december 7, 2000 Coopcentral, a high-grade Cooperative, bought loans held in administration for 3,255 million pesos.
1/ The information contained here is provisional because some items are calculated on estimates, since financial intermediaries are continually updating their financial statements.
2/ Starting from march 2000 the gross portfolio includes the liquidation balances of the BCH provided by the Banking Superintendency.
3/ Portfolio adjustments were made on the following criteria:
-Mortgage-debt relief does not include the financial system's accounts receivable from the government.
-The 1999 loan-administration portfolio held by fogafin (state financial guarantee fund) is not included, because account 821905 was opened by the banking superintendency at the end of 1999 and has not been reprocessed backward in time.
-The loans of entities under liquidation figuring in the gross portfolio calculated by sgee are included.
-Write-downs in respect of property received in payment are not included.
4/ Fogafin has been authorized by government decree 1814 dated september 18, 2000 to provide capital for public-law corporations principally engaged in acquiring, administering and disposing of unproductive assets owned by establishments of this nature. Fogafin has therefore created an entity for this purpose, Called Central de Inversiones (CISA), which carried out the following operation in october:
Bancafé sold loans worth 1,153,000 million pesos, receiving payment for them in Fogafin bonds, but will continue to administer the loans itself. In october Bancafé also sold loans worth 33,600 million pesos to the national coffee fund, for cash, and in november it sold loans worth 34,000 million to Finagro.
Source: Banco de la República, calculations by SGEE, on balances provided by the Banking Superintendency and information obtained through telephone surveys.

Figure 18
Lending and deposit rate differential and its historical average
(Percentage)



Sources: Banco de la República and Banking Superintendency.

Figure 19
Ex-post intermediation margin
(Percentage)



Sources: Banco de la República and Banking Superintendency.

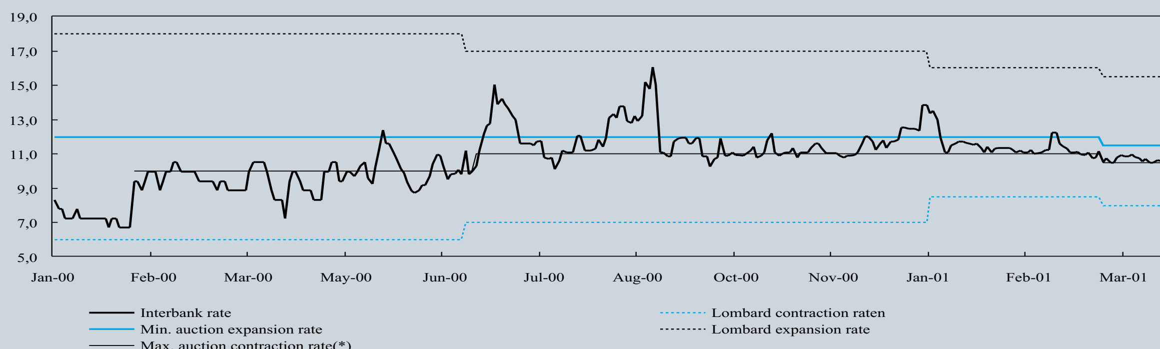
available, the ex-post spread was 7.8% in January of this year (Figure 19).

The interbank rate remained more or less stable around 11.0% over the whole quarter. But after the Board had reduced the Banco de la Repúlica's intervention rates on March 12th, the average interbank rate dropped by about 50 basis points in the last two weeks of March (Figure 20).

In real (ex-post) terms, the deposit rate rose from 4.2% at the end of the fourth quarter to 4.8% at the end of March 2001, and the lending rate measured by the Banking Superintendency's indicator increased from 19.0% to 22.2%. Over the same period the real lending rate calculated by taking into account preferential loans went up from 9.3% to 10.4% (Figure 21). The real interbank rate averaged 2.8% in March.

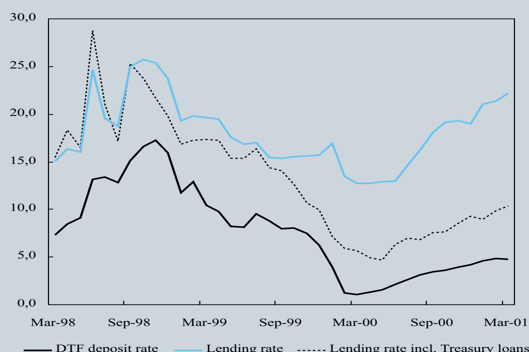
Figure 22 shows how the yield curve of the Banking Superintendency's basic rate (TBS) for different maturities evolved over the past 12 months. Although interest rates for low maturities (30 to 90 days) fell, those for longer maturities (for example, a year) did not and were running at about 14.0% by the end of the first quarter, considerably increasing the slope of this year's March yield curve relative to that of last year's.

Figure 20
Interbank rate and intervention bands
(Percentage)



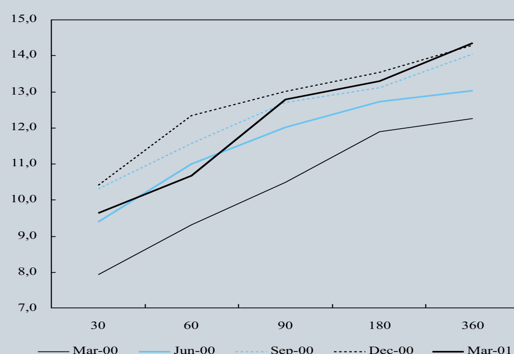
(*) Contraction auctions at this rate have a 14-day period.
Sources: Banco de la República and Banking Superintendency.

FIGURE 21
REAL DEPOSIT AND LENDING RATES, FINANCIAL SYSTEM
(PERCENTAGE)



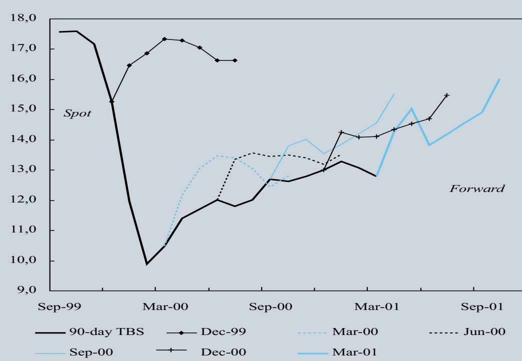
Sources: Banco de la República and Banking Superintendency.

FIGURE 22
BASIC DEPOSIT RATE (TBS) FOR DIFFERENT MATURITIES, DETERMINED BY BANKING SUPERINTENDENCY
(PERCENTAGE)



Sources: Banking Superintendency.

FIGURE 23
90-DAY TBS PROJECTIONS
(PERCENTAGE)



Source: Banking Superintendency.

past 12 months. The 90-day spot curve (thick line) shows that this rate has remained stable at around 13.0% over the past six months.

The points on the forward curves (thin lines) represent agents' expectations of the 90-day rate currently (the first point), in 30 days (second point), and so on up to 360 days. The forward curves suggest that the market continues to expect the 90-day rate to rise further in the very short term, up to 15.0%, but fall back to about 13.5% in the medium term (six months).

4. Yield differentials

This section deals with the differential between external and domestic yields. External yield is defined as the return that local investors expect to obtain if they decide to invest in dollar-denominated assets. It is estimated on the basis of an external interest rate of reference and devaluation expectations. The devaluation expectations used for this purpose are those implicitly contained in the financial system's forward (80- to 100- day) dollar sales contracts. Starting from this Report the external reference rate will be the 90-day CD rate in New York. The DTF deposit rate is used as the domestic rate of reference.

Figure 24 compares expected external yield with the rate of return on domestic investments (as measured by the DTF). Over the first quarter, while the domestic yield remained very close to 13.0%, expected external yield fell by about one percentage point because of lower devaluation expectations and a fall in the external reference rate. As a result, the domestic rate was slightly higher (0.5 percentage points) than the expected external rate in March, reversing the trend of the previous two months.

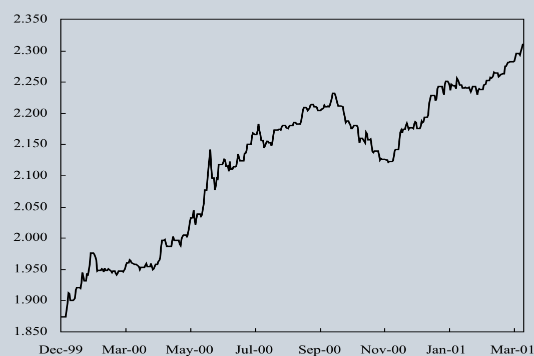
5. Nominal exchange rate

The nominal exchange rate stood at 2,311 pesos to the dollar at the end of March, as against 2,230 pesos at the end of last year, giving a 12-month devaluation of 18.4% and a first-quarter devaluation of 3.7% (Figures 25 and 26).

Figure 24
Domestic and expected external yields:
(Percentage)

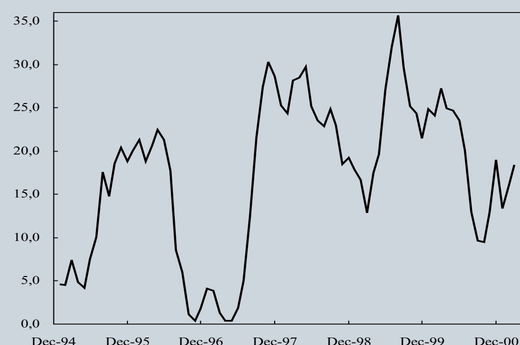
Source: Banco de la República.

Figure 25
Market exchange rate
(Pesos to the dollar)



Sources: Banking Superintendency.

Figure 26
Nominal devaluation
1994:12 - 2001:3
(Percentage)



Sources: Banco de la República and Banking superintendency.

A good part (2.4%)of this first-quarter devaluation occurred in March, especially in the second half of the month. The dollar was more stable in January and for most of February, because of foreign-exchange supply from the Treasury, which allowed option holders to exercise their options and the Banco de la República to buy dollars in an amount of $149 million. In March there was the usual sharp rise in foreign-exchange demand from the real sector, for import payments and for foreign companies to remit profits to their parent companies abroad. This March there was also greater-than-expected demand from some financial intermediaries, especially pension funds, keen on buying Colombian public-debt bonds abroad. This extra demand, plus the fact that the Treasury reduced the supply of foreign exchange because of high peso liquidity, set the dollar once more on a rising trend in March.

6. Real exchange rate

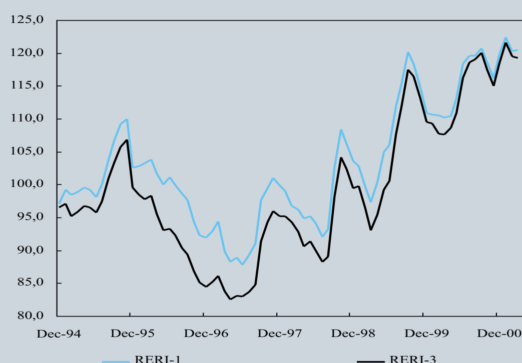
The real exchange rate, as measured by the RERI-1 index (1994 = 100), which is based on Colombia's Producer Price Index and those of its 20 trading partners, averaged 120.5 in March, giving an annual devaluation of 9.3% and a first-quarter devaluation of 0.6%. But using the RERI-3 index (1994 = 100), which is based on Consumer Price Indices, gives a 10.8% annual devaluation to March and a first-quarter devaluation of 0.8%. (Figures 27 and 28).

This minimal real devaluation for the first quarter contrasts with the nominal rate and is explained by the effect of cross devaluations between the various currencies included in the RERI-1 and RERI-3 indices, particularly the euro's devaluation against the dollar. The peso's real devaluation against the dollar was only 1.2% in the first quarter.

7. Asset prices

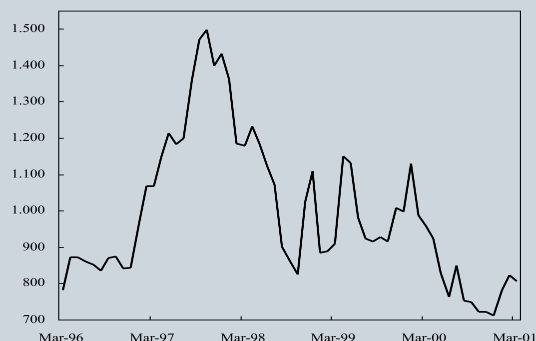
A description follows of a number of variables that indicate the price behavior of certain assets in Colombia. The first is the Bogotá Stock Exchange Index (IBB), a weighted price index of the shares of 20 Colombian companies having registered the largest

Figure 27
Real exchange rate indices
RERI-1 and RERI-3 (1994 = 100)
1994:12 - 2001:3



Source: Banco de la República, SGEE.

Figure 29
Bogota stock exchange index
(January 1991 = 100)
1996:3 - 2001:3
(Percentage)

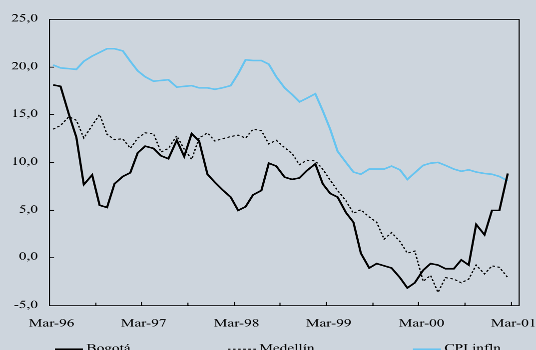


Source: Bogotá Stock Exchanges.

Figure 28
Real devaluation
RERI-1 and RERI-3 (1994 = 100)
1994:12 - 2001:3
(Percentage)

Source: Banco de la República, SGEE.

Figure 30
Housing-price inflation in Bogota and Medellin and CPI inflation
(Percentage)



Source: National Planning Department.

trading by volume and value on the Bogotá Stock Exchange in the preceding 48 fortnights. The weight of each of the 20 shares making up the Index depends on the volume and value of its trading and is recalculated every fortnight.

After falling during most of 2000, the Index picked up strongly this year, rising from 713 last December to 808 in March, equivalent to a 13.3% growth over the first quarter (Figure 29).

Another variable that provides information on asset-price behavior is the National Planning Department's housing-price index for Bogotá and Medellín, calculated on a monthly basis since 1994.[10] Figure 30 shows inflation in housing prices for Bogotá and Medellín, together with consumer-price inflation. Housing-price inflation in the two cities has run below CPI inflation since the second half of 1995, indicating that the real value of housing in the two cities began to fall steadily from that point on, the fall being greater in Bogotá than in Medellín. In the case of Bogotá this trend began to reverse at the end of 2000,

[10] Information on housing prices is gathered by the National Planning Department from the review *La Guía*, which provides data on intended purchase and sale transactions of new and used housing.

and by February housing prices were growing by 8.8%, faster than consumer inflation. But in Medellín housing prices have not yet picked up and were still shrinking slightly in February.

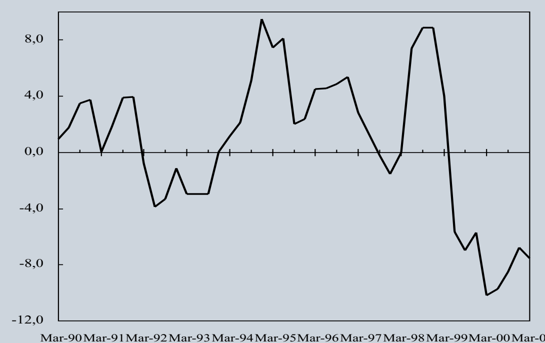
8. Monetary Conditions Indicator (MCI)

Over the first quarter of this year the Monetary Conditions Indicator for demand was well within the parameters indicating that monetary-policy management was loose relative to the base period chosen for constructing the Indicator (1998:1).[11] This behavior was a continuation of a trend that began in mid-1999 and persisted throughout 2000. The Indicator's position in the first quarter of this year is explained by the effect of low real interest rates in the previous two quarters and by the relative effect of real devaluation in the first quarter of this year (Figure 31).

B. Supply and demand

Economic data for the end of last year and the beginning of this year suggest that the economy may have lost a little momentum relative to previous trends and to the performance expected by analysts and the government. But the causes of this slower growth and the real sector's present state of health are still unclear. On the one hand, slower growth in recent months appears so far to have been largely caused by transitory supply problems rather than by a further weakening in demand. On the other hand, a number of internal and external developments not entirely foreseen in the previous Inflation Report have arisen this year that may impair investor and consumer confidence, thereby affecting economic performance in the coming months and making it less likely for the government's 3.8% growth forecast to be reached. These new developments include notably: the US economy's considerable loss

Figure 31
Monetary conditions indicator (MCI) for aggregate demand
(Percentage)



Source: Banco de la República, SGEE.

of dynamism; economic slowdowns in Europe and Japan; steep falls in coffee prices and lower prices for some other export commodities, because of declining world demand; and internal security problems that have limited the chances of exporting oil and damaged the country's power generating capacity.

1. General considerations

According to the National Statistics Agency (DANE), the annual rate of GDP growth in the fourth quarter of 2000 was 2.0%, lower than in the previous three quarters, and below the third-quarter's seasonally adjusted rate (Table 6). GDP growth for the year as a whole reached 2.8%, a good rate considering the economy's strong contraction in 1999, but one that fell short of the government's 3.0% projection.

Growth in 2000 turned out lower than expected by the government and some analysts, essentially because of an unexpected slowdown in the fourth quarter largely produced by two supply shocks. The first shock involved a fall in oil production mainly caused by public-order problems and resulting in a 6.5% contraction in mining and quarrying, rather than the 3.5% shrinkage originally forecast on the basis of natural depletion of the biggest fields[12]. Public-

[11] Starting from this Report the base year used in calculating the Monetary Conditions Indicator has been changed from 1994:4 to 1998:1, because the latter seems to present more suitable characteristics for the purpose, including the presence of a neutral output gap. A more detailed explanation of this change will soon be published by the Banco de la República.

[12] According to forecasting by the National Planning Department.

Table 6
Quarterly gross domestic product, by sector
1994 constant prices, seasonally adjusted series
(Annual percentage change)

	2000 (pr)				
	I	II	III	IV	Año Completo
GDP	2,5	3,5	3,2	2,0	2,8
Farming, forestry, hunting & fishing	2,6	7,4	3,8	7,2	5,2
Mining and quarrying	(0,4)	(7,9)	(8,1)	(6,5)	(5,8)
Electricity, gas and & water	4,1	1,9	1,8	3,1	2,7
Manufacturing	8,4	11,4	13,0	6,1	9,7
Construction	(9,1)	(2,6)	2,0	4,8	(1,5)
Commerce, repairs, restaurants & hotels	4,1	7,2	6,2	3,4	5,2
Transport, warehousing & communications	3,5	4,1	3,9	3,2	3,7
Financial, insurance, real-estate & bus.-serv. Entities	(1,5)	(0,1)	1,4	0,4	0,0
Social, community & personal services	1,2	(1,2)	(1,9)	(2,3)	(1,1)
Imputed banking services	(14,0)	(9,4)	(2,6)	(2,8)	(7,7)
Subtotal added value	2,7	3,5	3,0	2,2	2,9

(pr) preliminary
Source: DANE.

order problems had already hindered crude production and transport in the third quarter and did so again in the first months of this year, almost brining oil production in the Caño Limón field to a standstill. The other supply shock came from a strike at the country's largest beverage maker, which caused this sector to contract by about 4.0% in the fourth quarter of 2000 relative to the same period in 1999. Partly because of this, the manufacturing industry registered an annual growth of only 7.7% in the fourth-quarter, considerably lower than in the first quarter of the year.

The standstill in beverage production affected economic growth early this year in two important ways, on account of this subsector's big share (7.9%) of industrial output and its close links with other production activities within or outside the manufacturing industry. It did so directly, by reducing output levels significantly: the industrial sector excluding beverages grew at an annual rate of 8.7% over the fourth quarter of 2000. And indirectly, by its multiplier effect, which not only constrained the industrial sector through lower demand for inputs, but also held back other sectors crucial to GDP, such as commerce and transport. According to very preliminary estimates from the Ministry of Finance, the direct and indirect impacts of labor conflict in the beverage industry together slowed growth in last December's industrial output alone by 3.5 percentage points.

Besides these problems, other factors may have limited fourth-quarter growth in 2000, namely, a slowdown in public-sector activity and a further weakening of the financial sector. No other major industrial sectors or branches registered any clear decline in growth trends, and in fact some sectors such as construction showed promising signs of recovery by growing at higher-than-expected rates.

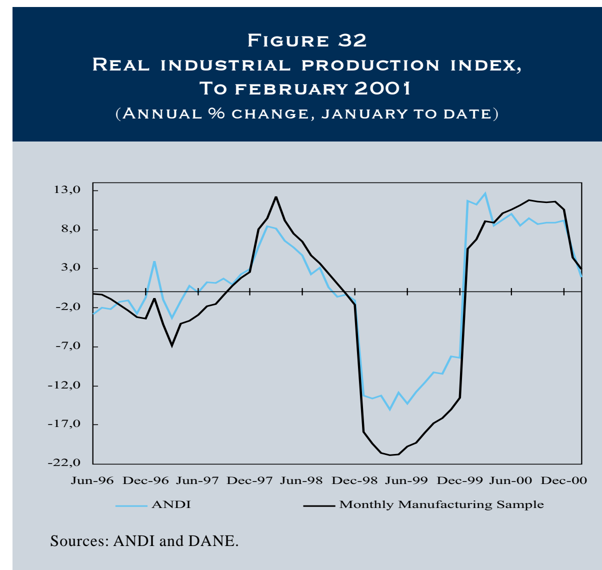
Statistical information available in early 2001 continued to give ambiguous signals. To February, sectors such as industry and commerce, though still growing, were clearly less dynamic than expected. According to data from DANE'S Monthly Manufacturing Samples, industrial output excluding unthreshed coffee grew at an annual rate of 2.9% over January and February, far below last year's rate of

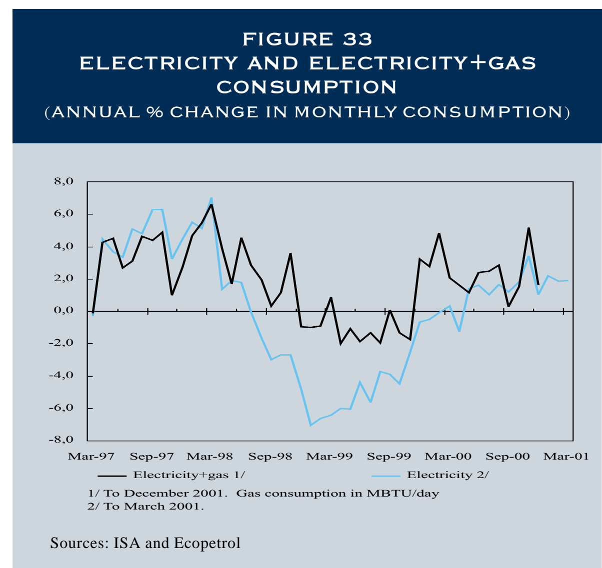
expansion, and also below the conservative estimates made a few months earlier by taking into account the statistical effect of comparison with a broader base in 2000 (Figure 32). As regards commerce, retail sales shrank by 1.3% by over the first two months of 2001, a poorer performance than last December's already weak result.

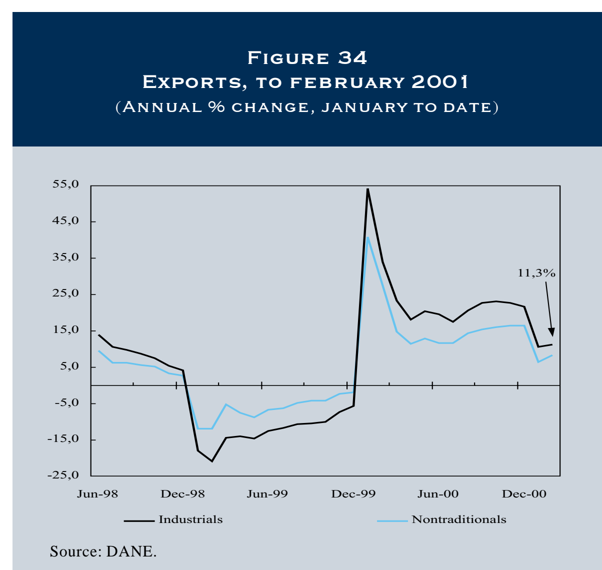
Supply problems in the oil and beverage sectors apparently continue to be the main cause of slower growth. According to Finance-Ministry estimates, industrial growth fell again in January and February, by 2.7 and 2.6 percentage points respectively, owing to the beverage sector's semi-paralysis. Over the same period, difficulties faced by the sugar industry in obtaining inputs forced it to reduce the pace of production and were partly responsible for the food industry's mediocre performance.

Other recently released indicators of the real sector show no trend changes, suggesting that economic recovery continues on several fronts. Monthly electricity consumption is a case in point: it increased at an annual average rate of 2.0% over the first quarter, faster than its average growth last year (Figure 33). Similarly, nontraditional exports, especially industrial ones, continue to show buoyancy. Industrial exports expanded at an annual rate of 11.3% over the first two months of this year, a significant rise considering that it came on top of last year's already high growth rate (Figure 34). By destination, industrial exports to Ecuador soared (by over 70.0%), fast recovering ground lost over the two previous years on account of Ecuador's economic crisis. Industrial exports to Venezuela also grew at a considerable pace over January and February (21.0% for the current year to date), as did exports to the US market. Yet, in the case of Venezuela, the United States and some other countries such as Germany, a deceleration in exports from certain subsectors such as textiles, chemicals and transport equipment might be signaling a trend break.

Import figures to January do not give any clear indication of a forthcoming economic downturn either. Total imports grew at an annual rate of 13.5% in January,







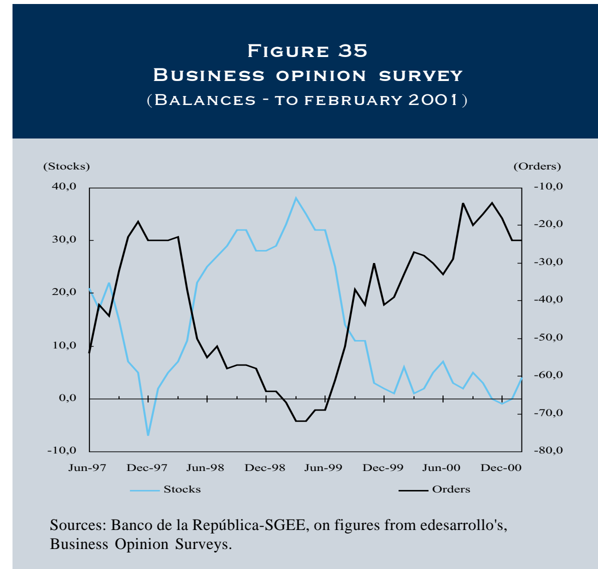
with expansions occurring in all the three main groups (consumer, intermediate, and capital goods), as indicated below. Moreover, both industrial and overall employment figures improved in the first two months of this year compared with the same period last year. Likewise, several construction-sector indicators such as building licenses and transactions continued to improve, suggesting actual growth in the sector in early 2001.

Lastly, according to Fedesarrollo's Business Opinion Survey, industrial output is not expected to change notably in the coming months. Although the orders indicator was slightly lower in January and February than in previous months, this may be partly attributable to seasonal factors, for the levels still remained high. Seasonal factors may have also been responsible for an edging up this year in the stocks indicator (Figure 35). Expectations about the economy in six months' time are the only indicator that seems to have deteriorated in February, for as yet unclear reasons. Their behavior accounts for a falling off in the business climate in February, though this indicator too is still at one of its highest levels of the past eighteen months (Figure 36).

For most GDP components, therefore, annual growth over the first quarter is not expected to differ much from fourth-quarter levels, although the supply problems referred to above will have a greater impact this year than they did at the end of last year. In this connection, termination of the beverage-industry strike at the end of February should improve industry and commerce results in March relative to January and February.

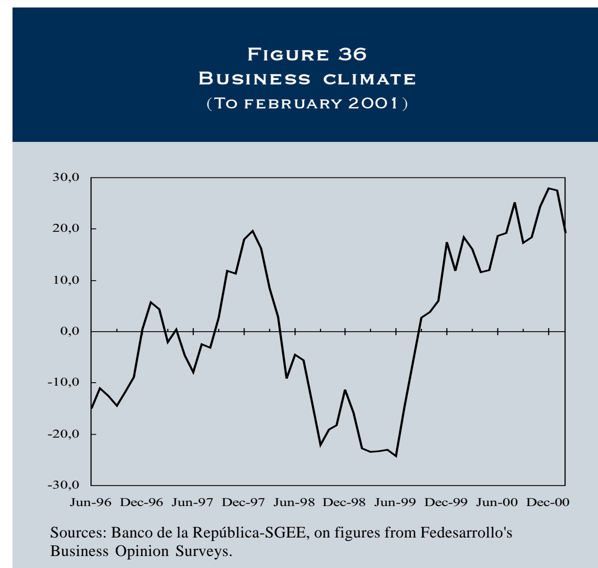
The economy is expected to be able to continue growing in the coming months, among other reasons because interest rates are still relatively low, and also because lower inflation still allows the monetary authorities to maintain a loose policy stance with respect to liquidity. What is not clear at the moment, though, is whether the economy can improve on last year's performance and grow at the forecast rate of 3.8%, in view of the following unfavorable developments of recent months:

FIGURE 35
BUSINESS OPINION SURVEY
(BALANCES - TO FEBRUARY 2001)



Sources: Banco de la República-SGEE, on figures from edesarrollo's, Business Opinion Surveys.

FIGURE 36
BUSINESS CLIMATE
(TO FEBRUARY 2001)



Sources: Banco de la República-SGEE, on figures from Fedesarrollo's Business Opinion Surveys.

✠ The US economy is slowing down at a faster pace than was expected a few months ago. This situation tends to affect economic performance in Colombia mainly through deterioration of the terms of trade. There are already symptoms of this, including a further weakening of coffee prices and steep falls expected in the price of nickel (about 20% in 2001) and other products, which partly account for nontraditional exports' shrinking value in dollars in January and February (see Chapter IV). Nontraditionals, however, still represent a relatively small share of Colombian exports to the US market, so that lower demand in that market will affect GDP only marginally provided it does not last overlong.

✠ It has also become clear in recent months that internal security problems may greatly affect the economy this year, as is evident from the virtual paralysis of oil production at the Caño Limón field and its effects on exports. There is also an increasing risk of an energy crisis because of continual terrorist attacks against the country's power-transmission infrastructure. As the energy crisis of 1991 showed, such a situation can easily lead to a recession, particularly if the economy is already less than strong, as is the case today.

✠ Uncertainty continues to run high among investors, as evidenced by weaker business expectations about the state of the economy in six months' time, referred to above of. Consumer confidence is also waning, to judge by the poor sales of durable consumer goods such as cars and by declining consumer loans. Faster economic growth will depend on improving consumption and investment, because nontraditional exports can hardly do the job, given their still low share of overall demand.

✠ Lastly, emerging markets, such as Colombia's, may have become less attractive on account of the risks currently presented by the economies of Argentina and Turkey. Net capital flows to Colombia may therefore diminish, making it necessary for the public and private sectors to reduce their budgets of expenditure. The peso's constant devaluation this year might be a sign of this development.

2. Consumption

Final consumption was lower than expected in the fourth quarter of last year, practically stalling relative to the same period in 1999, according to DANE's figures (Table 7). Loss of dynamism in consumption was already discernible in the third quarter of 2000, when the rate of growth was well below what it had been in the first half of the year. At the time, this decline was ascribed to much slower growth in public consumption, which had become necessary to meet the macroeconomic program' fiscal targets. Fourth-quarter stagnation in consumption can also be partly explained by this factor. Low rates of real growth, however, in such indicators as credit-card sales and the retail-sales index suggest that declining private consumption, too, may have been a cause of stagnation in final consumption.

TABLE 7
FINAL SUPPLY AND DEMAND
1994 CONSTANT PRICES, SEASONALLY ADJUSTED SERIES
(ANNUAL PERCENTAGE CHANGE)

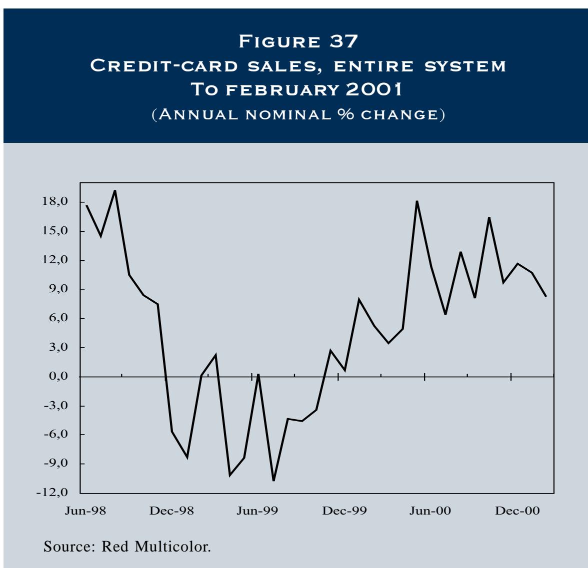
Item	2000 (p)				
	I Mont.	II Mont.	III Mont.	IV Mont.	Full Mont.
GDP	2,49	3,50	3,18	2,05	2,80
Total imports	8,16	9,12	6,48	(0,34)	5,71
Total final supply	3,36	4,34	3,69	1,66	3,25
Final consumption	2,37	2,24	1,05	(0,03)	1,40
Gross capital formation	8,65	20,14	17,01	4,56	12,30
Subtotal final domestic demand	3,28	4,61	3,25	0,63	2,92
Total exports	3,76	2,90	5,98	7,22	4,98
Total final demand	3,36	4,34	3,69	1,66	3,25

(p) Provisional.
Source: DANE.

Little information is available on consumption in early 2001. Credit-card sales point to continued but slower growth in private consumption. In February credit-card sales showed an 8.3% expansion relative to January 2000, which means a real growth of only about 0.3% (Figure 37). Retail sales point to the same conclusion too. Retail sales, excluding fuel, grew at an annual rate of 2.4% in January, slightly lower than their rate during the better part of last year (Figure 38).

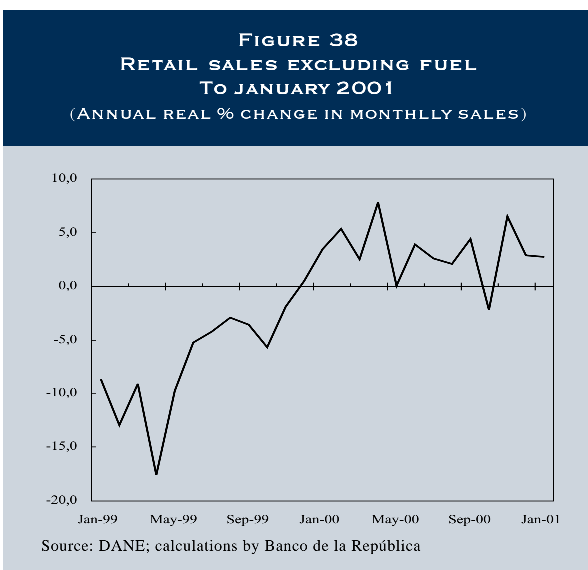
As pointed out in previous Reports, final consumption cannot be expected to show much stronger growth for most of this year than it has shown recently. Today's high rates of unemployment and still high levels of household debt make a significant pick-up in private consumption unlikely. Much the same can be said about public consumption, in view of the macroeconomic program that is being pursued.

FIGURE 37
CREDIT-CARD SALES, ENTIRE SYSTEM
TO FEBRUARY 2001
(ANNUAL NOMINAL % CHANGE)



Source: Red Multicolor.

FIGURE 38
RETAIL SALES EXCLUDING FUEL
TO JANUARY 2001
(ANNUAL REAL % CHANGE IN MONTHLLY SALES)



Source: DANE; calculations by Banco de la República

Nevertheless, higher employment in January and February and an improvement in consumer-goods imports in January augur well for consumer demand behaving in a way compatible with a rate of economic growth ranging between 3.0% and 4.0%. Imports of consumer durables expanded at an annual rate of 38.5 % in January, much faster than in previous months. Nondurable consumer imports grew by 11.8%, a far higher rate than last year, when they remained practically stagnant (Figure 39).

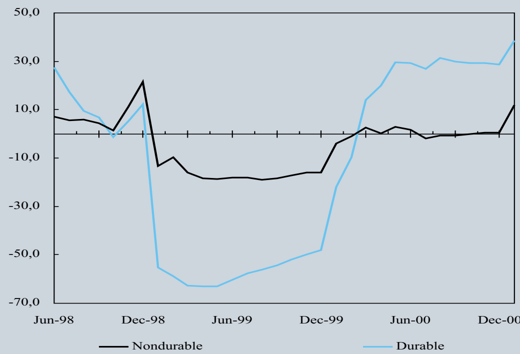
3. Investment

Total investment, like consumption, slowed in the fourth quarter of last year relative to the previous quarters. DANE's figures show investment growing at an annual rate of 4.6% in the fourth quarter, down from more than 15.0% in both the second and the third.

Since investment levels are still much lower than in the mid-1990s, their decline at the end of last year is worrying and may reflect a recurring lack of investor confidence that reduces the chances of economic growth. As in the case of consumption, however, lower public investment may have played a large part in making overall investment less buoyant at the end of 2000.

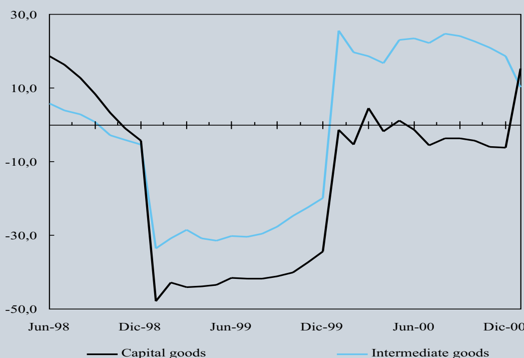
Despite the foregoing, here too the figures for January justify remaining optimistic, in this case because of the behavior of such investment indicators as intermediate and capital goods imports. In January imports of intermediate goods continued to grow in value at a good pace (11.2% annual rate), while imports of capital goods registered a considerable expansion (15.4%) (Figure 40). As mentioned in previous Reports, capital-goods imports had continued to shrink last year, apparently owing to falling prices, for they did in fact grow in volume. On data to January, they expanded in both value and volume.

Figure 39
Consumer-goods imports
To January 2001
(% change, January to date)



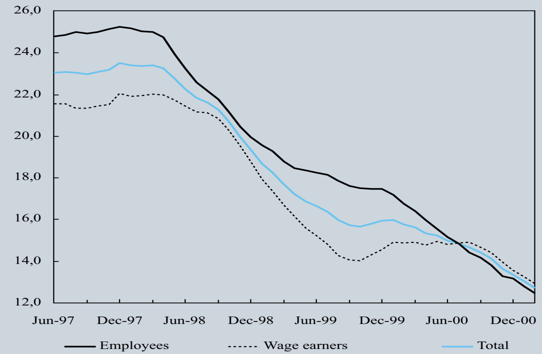
Source: Tax and Customs Administration (DIAN) manifests.

Figure 40
Capital & intermediate goods imports
To January 2001
(Annual % change, January to date)



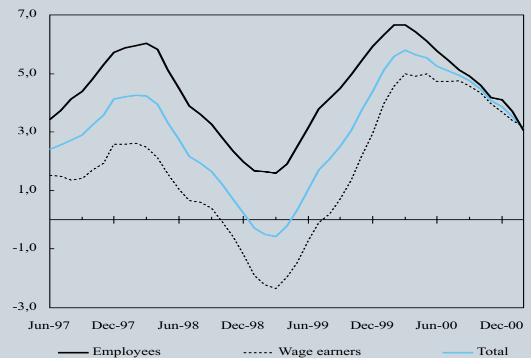
Source: DIAN manifests.

Figure 41
Nominal manufacturing pay
To February 2001
(Percentage 12-month change)



SOURCE: DANE, Monthly Manufacturing Sample.

Figure 42
Real manufacturing pay
Ti February 2001
(Annual % change in 12-months' accumulated)



SOURCE: DANE, Monthly Manufacturing Sample.

C. Wages and emloyment

1. Industrial pay

The declining trend in industrial-pay rises that lasted all through 2000 continued into the first two months of 2001, at a still significant pace. For while the 12-month average nominal pay for all wage earners and employees rose at an annual rate of 13.4% in the fourth quarter, it did so at a rate of 12.7% in the first two months of this year (Figure 41). The decline is more marked in the sector's nominal pay increases in January and February this year, which averaged only 10.7%. As pay-rise levels early in the year tend to set the pace for the rest of the year, nominal industrial pay can be expected to rise at rates close to or under 11.0% throughout 2001, thus helping to meet inflation targets for this year and next year.

Despite steadily falling inflation over the first quarter, the drop in the rate of nominal pay increase was big enough to reduce the rate of real pay increase in industry. In February the 12-month average of the real pay index for wage earners and employees rose at an annual rate of 3.1%, significantly lower than the 3.9% registered in December (Figure 42).

Although lower pay rises can be expected to reduce inflationary pressures from this source all through 2001, they only provide partial information about the importance of this channel of transmission. As pointed out in previous Reports, a complementary and in some cases more accurate picture can be obtained of the effect of wage pressures on prices by analyzing unit labor costs, which take into account salary variations adjusted for changes in labor productivity (implicit in this case).

According to figures from DANE's Monthly Manufacturing Samples, industry's nominal unit labor cost increased at an average annual rate of 9.2% from December 2000 to February 2001 (Figure 43). This was the first increase since the end of 1999 and resulted statistically from a larger number of workers being hired over that period relative to the rise in production, with a consequent fall in implicit productivity.

Nevertheless, the rise in unit labor costs is still compatible with this year's inflation target of 8.0%. But recent trends may be signaling that the period of low inflationary pressures from labor costs is coming to an end, as anticipated in the previous Inflation Report. As stated also in that Report, nominal unit labor costs are likely to rise faster in 2001 than they did in 2000, for it is unlikely that industry will manage to maintain the (implicit) productivity gains of the past two years,

FIGURE 43
NOMINAL UNIT LABOR COST
INDUSTRIAL WAGE EARNERS TO FEBRUARY 2001
(ANNUAL CHANGE)

SOURCE: DANE, Monthly Manufacturing Sample.

partly because meager investment in recent years must have curbed the pace of technological renewal.

2. Employment

At the beginning of this year DANE replaced the quarterly National Household Survey, the source of unemployment data for the major urban areas, by the Continual Household Survey, which introduces a broader methodology providing information on urban and rural unemployment on a monthly, quarterly or half-yearly basis, depending on the coverage. The new methodology estimates unemployment for the country's 13 largest cities at 20.5% in January and 19.6% in February, each being three percentage points higher than in the same month last year. Unemployment for the country as a whole was 16.4% in January.

As in the case of the seven cities' jobless rate estimated by the old methodology, rising unemployment for the 13 cities resulted largely from a considerable increase in the labor supply, as evidenced by a 5 percentage-point pick-up in the overall participation rate in the 12 months to February. This meant that the economically active population grew by 10.0% last year, a substantial expansion considering that the working-age population grew by only 2.4% over the same period, according to estimates by DANE.

Rising unemployment has overshadowed the recovery registered in employment over the past 12 months according to information from DANE. Some 439,000 new jobs were created in the 13 largest cities in the 12 months to February of this year, giving a 6.6% increase and raising the occupation rate by two percentage points over the same period, to 52.2%. These figures confirm the upward trend in employment identified last year by DANE using the old methodology.

Figures on industrial employment also confirm the rising trend perceived by DANE in overall employment. In the first two months of this year industrial employment was up 1.9% on the same period last year, a slightly higher growth than in the fourth quarter of 2000. This indicator had started picking up in mid-2000, largely thanks to a strong recovery in temporary employment, which

continued over January and February this year at a rate of 20.9%. At the same time, however, permanent employment continued to shrink, indicating perhaps, among other things, still high levels of uncertainty among businessmen about the strength and duration of the recovery, which led them to try and make their labor costs as flexible as possible by reducing the number of their permanent employees (Figure 44).

3. Pay settlements

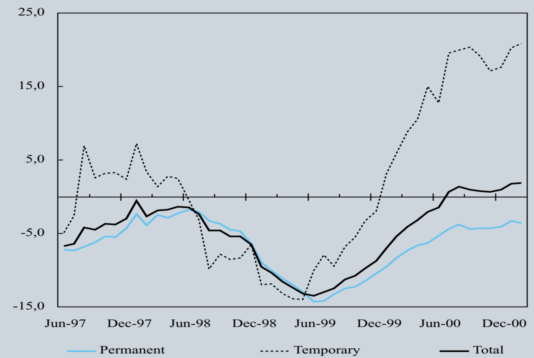
Table 8 presents figures on one-year and two-year pay settlements established in collective bargaining agreements reported to the Ministry of Labor and Social Security. The top part of the table shows the percentages of workers from public- and private-sector companies covered by one-year pay settlements negotiated in the first quarter of 2001. A large proportion of workers (37.0%) agreed to a one-year pay rise of 8.75%, this being the rate of inflation at the end of last year, while an even higher proportion (47.3%) obtained increases ranging between 8.9% and 11.0%, and only 7.1% saw their earnings rising by more than 11%.

As regards two-year pay settlements reached in the first quarter of this year, the bottom part of Table 8 shows that for a large majority of workers (59.7%) pay rises are to keep pace with CPI inflation, while for 28.4% the rate of increase will range between CPI+0.2 and CPI+2.0, with only 8.5% of workers having agreed to a rise of under 10.0%

D. Capacity utilization

In February, Fedesarrollo's and ANDI's indicators of industrial- capacity utilization declined with respect to the fourth quarter of last year. But this is usual, given the highly seasonal nature of industrial production. And in fact the 2.5% growth in Fedesarrollo's indicator in February of this year relative to the same month last year is significant, since it came on top of an already substantial growth in February 2000. But even so it continues to be lower than the usual February rate (Figure 45).

FIGURE 44
MONTHLY INDUSTRIAL EMPLOYMENT INDEX
TO FEBRUARY 2001
(ANNUAL CHANGE)



Source: DANE.

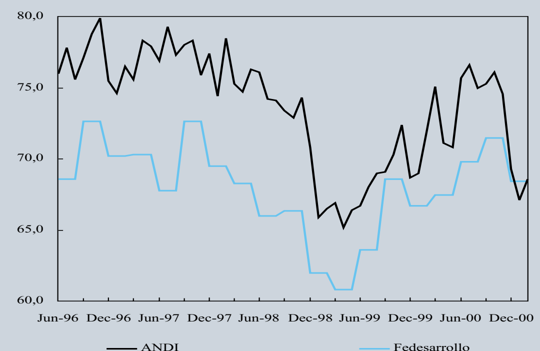
TABLE 8
PAY SETTLEMENTS: JANUARY-MARCH 2001
% OF BENEFICIARIES BY PAY-RISE LEVEL

One-year negotiated rises			
<8,75	8,75	[8,9-11,0]	>11,0
8,6	37,0	47,3	7,1

Two-year negotiated rises				
<10,0	[10,0-15,0]	IPC	[IPC + 0,2-IPC + 2,0]	SML
8,5	1,6	59,7	28,4	1,7

MLW: Minimum legal wage
Source: Ministry of labor and social security.

FIGURE 45
CAPACITY UTILIZATION
(TO FEBRUARY 2001)



Sources: ANDI and Fedesarrollo.

In contrast, ANDI's indicator did fall in January and February relative to the same months last year. In this case, however, the figures are not entirely comparable because the beverage-sector strike played a major part in these falls by causing zero capacity utilization in the companies affected.

Current levels of capacity utilization continue to be moderate compared with the decade's averages or with years of growth close to long-term ones [sic]. Much the same can be said about industrial output, whose accumulated level for the first two months of 2001 amounted to 92.0% of the same months' average for the first seven years of the 1990s. There appears to be scope therefore for industry to grow without creating any great inflationary pressure, at least for the rest of the first half of the year.

E. Fiscal situation

At the end of 2000 the consolidated public-sector deficit stood at 5,861 billion pesos, equivalent to 3.4% of annual GDP. This result meets the terms of the IMF agreement and is lower than the 1999 deficit by over 2.0% of GDP[13]. As pointed out in the December 2000 Report, the good performance of the country's public finances in 2000 is associated with progress in the government's fiscal-adjustment process, and with buoyancy in the oil sector stemming from rising world crude prices (Table 9).

The central government's finances showed a deficit of 5.8% of GDP, down by 1.7% of GDP on the figure for 1999. Improvement in the government's fiscal situation can be largely ascribed to last year's 19.8% growth in revenues, which resulted from economic reactivation and efforts by the Tax and Customs Administration (DIAN) to reduce tax evasion and elusion. Excluding the smaller taxes, the biggest increases in tax revenues came from import taxes (29.4%), and from income tax and internal VAT (20.3%) (Table 10).

On the expenditure side, interest on debt expanded by 31.9%, operating expenses by 9.2%, and investment by 18.8%. Slow growth in operating outlays is attributable to a rise of barely 0.6% in transfers to the country's administrative divisions

13 The deficit target set with the IMF is 6,480 billion pesos.

Table 9
Consolidated public-sector fiscal balance

		Billions of pesos			percentage of GDP		
		1999	2000	Difference	1999	2000	Difference
I.	Nonfinancial public sector (A + B)	(9.346)	(6.057)	(3.289)	(6,15)	(3,50)	(2,64)
	A. Central government	(11.450)	(10.080)	(1.370)	(7,53)	(5,83)	(1,70)
	B. All other	2.104	4.023	(1.919)	1,38	2,33	(0,94)
II.	Banco de la República's quasifiscal balance	608	877	(269)	0,40	0,51	(0,11)
III.	Fogafin balance	828	30	798	0,54	(0,02)	0,53
IV.	Financial restructuring costs	(10)	(666)	656	(0,01)	(0,39)	0,38
V.	Adjustments	(351)	(45)	(306)	(0,23)	(0,03)	(0,20)
VI.	Consolidated public-sector deficit (I + II + III + IV + V)	(8.271)	(5.861)	(2.410)	(5,44)	(3,39)	(2,05)

Source: Fiscal Policy Council (CONFIS).

Table 10
Central government
(Billions of peso)

		1999	2000	Change % 2000 / 1999
I.	**Total revenues (A + B)**	18.926,1	22.679,9	19,8
	A. Tax revenues	16.067,7	19.637,0	22,2
	Income tax & internal VAT	11.144,0	13.409,0	20,3
	Customs & external VAT	3.308,0	4.279,0	29,4
	Financial-transactions levy	880,7	1.037,0	17,7
	Gasoline	707,0	833,0	17,8
	Other	28,0	79,0	182,1
	B. Nontax and other revenues	2.858,9	3.042,9	6,4
II.	**Gastos totales (A + B + C + D) 1/**	29.117,1	32.940,9	13,1
	A. Interest payments	5.025,5	6.630,2	31,9
	B. Operating costs	20.875,4	22.799,7	9,2
	C. Investment outlays	2.254,7	2.679,0	18,8
	D. Net loans	961,5	832,0	(13,5)
III.	**Cash deficit or surplus (I - II)**	(10.190,5)	(10.261,0)	0,7
IV.	**Adjustments**	(1.260,0)	181,0	(114,4)
V.	**Total deficit or surplus (III + IV)**	(11.450,5)	(10.080,0)	(12,0)
VI.	**Financing (A + B + C)**	11.450,5	10.080,0	(12,0)
	A. Net external credit	3.244,0	3.675,0	13,3
	B. Net domestic credit	5.713,0	6.638,0	16,2
	C. Privatizations and other	2.493,5	(233,0)	(109,3)
VII.	**Deficit as percentage of GDP**	(7,5)	(5,8)	(22,6)

1/ Does not include financial restructuring costs.
Source: CONFIS.

during 2000. Expansion in investment spending was mainly connected with appropriations for reconstruction of the earthquake-damaged coffee growing region and the low-income housing program, the two together representing about 25.0% of total capital outlays in 2000. Net loans totaled 832 billion pesos, including notably credit operations through the Special Foreign Debt Account (CEDE), amounting to 503 billion.

The government's deficit was largely financed from foreign and domestic loans, the net drawdowns amounting to 3,675 and 6,638 billion pesos respectively. Domestic disbursements totaled 12,006 billion pesos, of which 11,380 billion came from placements of Treasury paper and 626 billion from other kinds of securities including subscriptions of Debt Reducing Certificates and Peace Bonds. Lastly, it should be noted that the transfer of profits from the Banco de la República's operations amounted to 516 billion pesos, and proceeds from the sale of Carbocol to 748 billion.

As regards the fiscal results for the first quarter of 2001, only execution of the government's current revenues can be highlighted, having climbed to 6,068

Tabele 11
Central government current revenues
(Billions of pesos)

	Actual Jan.-March		Change % 2001/2000	Budgeted Jan.-March	Difference Actual - Budgeted
	2000	2001		2001	
Current revenues (A + B + C + D)	5.328	6.068	13,9	6.369	(301)
A. Internal taxes	3.875	4.202	8,4	4.518	(316)
Income tax	2.186	2.335	6,8	2.403	(68)
VAT	1.689	1.867	10,5	2.115	(248)
B. External taxes	920	1.154	25,4	1.237	(83)
Customs	397	447	12,6	511	(64)
VAT	523	707	35,2	726	(19)
C. Other taxes	445	638	43,4	570	68
Gasoline tax	185	270	45,9	229	41
Stamp tax	6	12	100,0	8	4
Financial transactions levy	253	356	40,7	333	23
Gold and silver tax	1	0	(100,0)	0	0
D. Other current revenues	88	74	(15,9)	44	30

Source: National Treasury Directorate

billion pesos, with a 13.9% growth relative to the same period last year. Among income items, revenues from income tax and domestic VAT rose by 8.4% and import-tax receipts by 25.4%, while income from the gasoline tax and the financial-transaction levy surged by 45.9% and 40.7% respectively. Slow growth (6.8%) in income-tax receipts may be associated with their exceptional expansion in the first quarter of 2000, which resulted from a reduction in the number of days banks were allowed to hold on to tax payments before transferring them to the Treasury's account (Table 11).

III

Measures of expectations

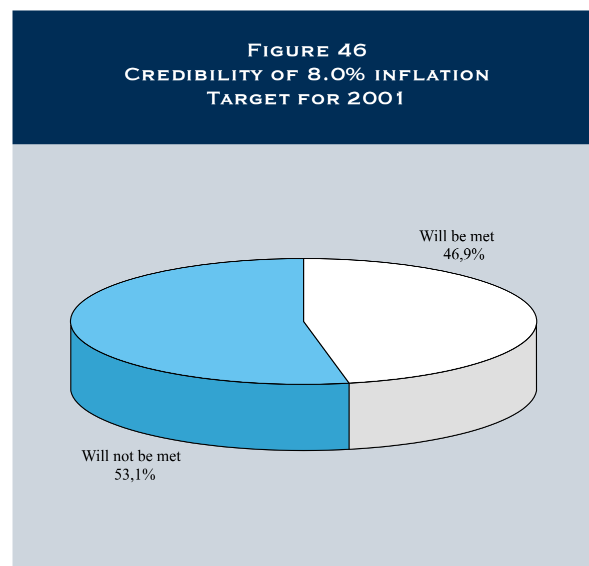
Section A of this chapter presents the main findings of the Expectations Survey conducted in January 2001. Respondents were provided with information available at the end of 2000 on the exchange rate, inflation, interest rates, monetary situation and GDP growth. Section B discusses forecasts by local and foreign analysts and investment banks regarding the behavior of the chief macroeconomic variables in 2001.

A. Main findings

1. Inflation

The survey's first question was about the credibility of the 8.0% inflation target set for this year. Some 46.9% of respondents believed that the target would be met, whereas 53.1% thought it would not (Figure 46). It is worth noting that in the very first Expectations Survey, conducted last year in April, only 33.3% of respondents believed the 10.0% target for 2000 would be met. So this year's target may be said to be more credible than last year's, which was in fact easily attained by the end of 2000.

Figure 46
Credibility of 8.0% inflation
Target for 2001



The groups of respondents believing most strongly that this year's 8.0% target would be met were the transport and communications sector (68.2%), followed by academics and consultants (58.0%). The most skeptical were labor unions, with only 11% of this group considering the target attainable.

In all, however, respondents did not expect inflation to deviate strongly over this year from the end-2000 level (8.7%), predicting that it would run at 8.9% by the end of 2001, within a range of 9.4% and 8.4% (Figure 47).

Actual inflation in March was 7.8%, not only lower than the January Survey's expected average of 8.7% (within a range of 9.1% and 8.2%), but even below the lower limit of this range.

Once again the unions were the group expecting the highest inflation by the end of 2001 (an average rate of 9.2%), and the transport and communications sector the group that expected the lowest (8.6%).

The continuing trend of falling inflation has resulted in inflation expectations being revised down (Figure 48). While the three Surveys conducted last year produced upward sloping paths for expected inflation, the latest Survey shows that inflation is not expected to pick up but to flatten out instead at around 8.8%.

Figure 47
Actual inflation and Jan/2001 expectations
(For 3, 6, 9 and 12 months later)
(Annual rate)

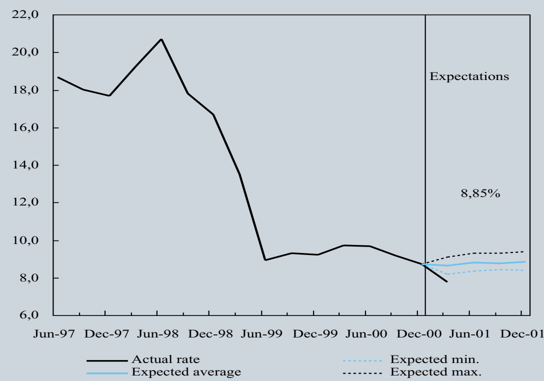


Figure 48
Actual and expected inflation
Quarterly expectations surveys
(Annual rate)

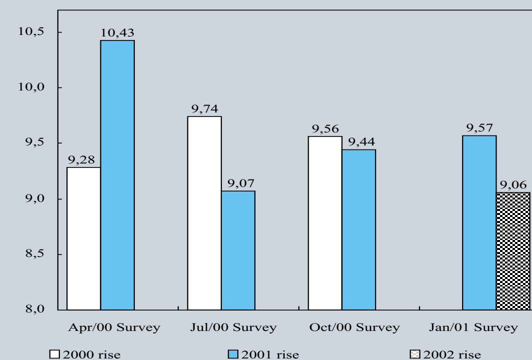
Figure 49 shows that, in January, respondents who did not believe the 2001 target would be met expected inflation to run at 9.5% by the end of the year, whereas those believing it would be met expected a rate of 8.2%.

Figure 49
Inflation expectations of believers and non-believers
In attainment of 8.0% target for 2001

2. Pay rises

Figure 50 displays expected pay rises for the current year and the following one, as reported in the expectations surveys carried out between April 2000 and January 2001. In January, pay rises for this year were expected to average 9.6% (up from 9.1% in the July survey and 9.4% in the October survey), while the expected average rise for 2002 was 9.1%.

Figure 50
Expected average wage rises
For current and following year
(Percentage)



The sectors expecting the biggest rises were retail chains (10.2% for 2001, 9.8% for 2002), and industry and mining (9.6% for 2001, 9.1% for 2001); those expecting the lowest were unions and academics and consultants (9.1%).

3. Perceptions of liquidity and credit availability

The percentage of respondents considering that the level of liquidity was high in the economy fell from 50.6% in October to 44.4% in January; the percentage considering it was low remained the same, at 34.6% (Figure 51). As regards liquidity in six months' time, 57% of those polled in January expected it to remain

Figure 51

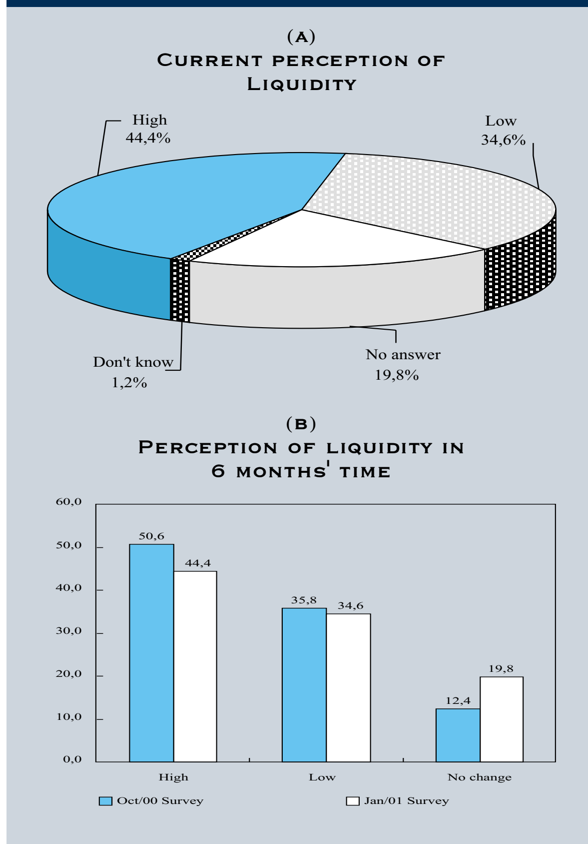
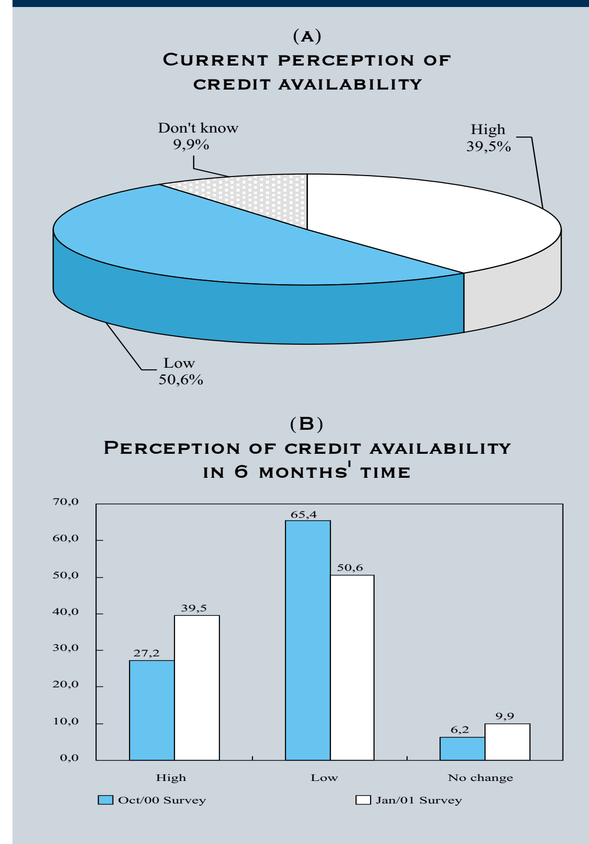


Figure 52



unchanged from its October level, while 20% thought it would fall, and 23% saw it as rising (Figure 51). The lowest perception of current liquidity was expressed by unions (78% low, 22% high), and the lowest perception of liquidity in six months' time by the transport and communications sector.

In January, the current level of credit availability was considered high by 39.5% of respondents and low by 50.6%, compared with 27.2% (high) and 65.4% (low) last October, which might suggest that perceptions in this regard have begun to improve (Figure 52). Credit availability in six months' time was expected by 55.6% of respondents to remain at January's current level, while 28.4% saw it as rising and 13.6% thought it would fall (Figure 52).

Here too, unions had the lowest perceptions, with only 11.0% considering credit availability was high in January, as against 89.0% who though it was low. As regards future credit availability, academics and consultants showed the highest percentage of respondents(44.4%) believing it would increase.

4. Interest and exchange rates

In January, respondents continued to expect interest rates to rise by about 1.1 percentage points over the year, with the DTF deposit rate averaging 14.4% by December 2001 (Figure 53). The DTF rate stood at 13.0% in March, 0.6 percentage points below the March rate expected in the January survey (Figure 53).

The biggest interest-rate rise by the end of 2001 was expected by retail chains (14.9%), and the lowest by unions (13.4%).

In January, the exchange rate was expected, on average, to end the year at 2,460 pesos to the dollar, signifying

FIGURE 53
DTF INTEREST RATE: ACTUAL, AND JAN/01 EXPECTATIONS (FOR 3, 6, 9 AND 12 MONTHS LATER)
(ANNUAL EFFECTIVE RATE)

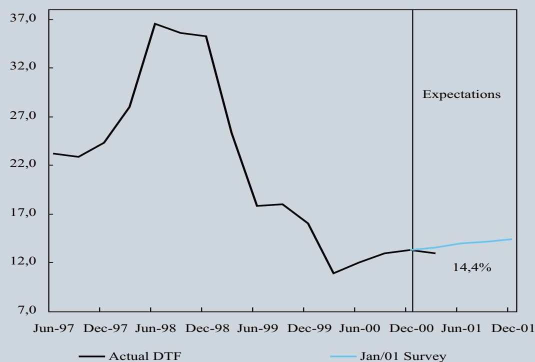


FIGURE 55
NOMINAL EXCHANGE RATE, ACTUAL AND QUARTERLY SURVEY EXPECTATIONS
(PESOS TO THE DOLLAR)

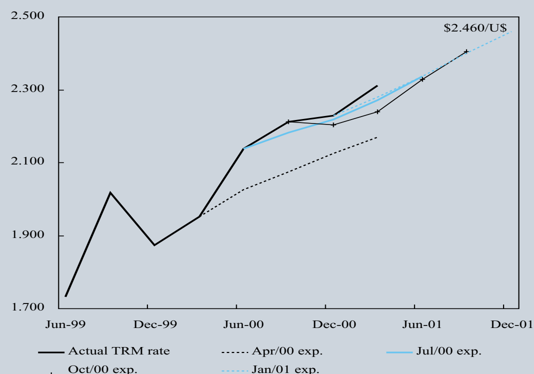


FIGURE 54
NOMINAL EXCHANGE RATE: ACTUAL, AND JAN/01 EXPECTATIONS
(PESOS TO THE DOLLAR)

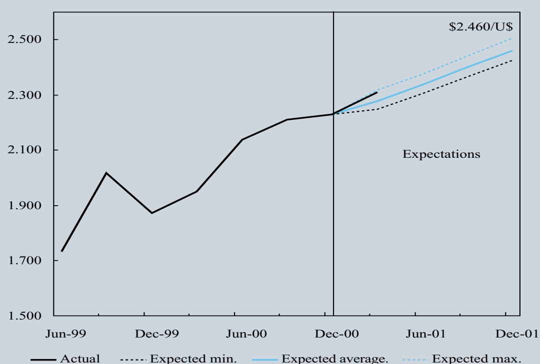
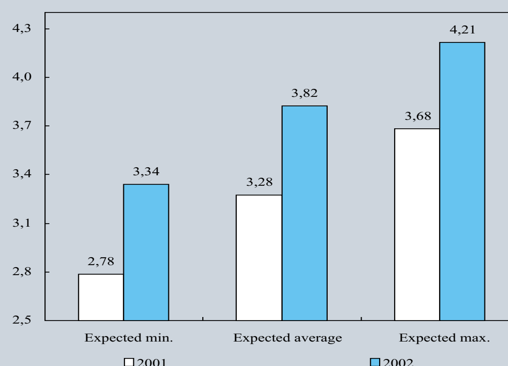


FIGURE 56
EXPECTED GDP GROWTH FOR 2001 AND 2002



an annual nominal devaluation of about 10.3%. At the end of March the actual rate was 2,310 to the dollar, running at the upper limit of the range predicted in January (Figure 54).

Expectations about future movement in the nominal exchange rate were much the same in January this year as in October 2000. For instance, the expected rate for September 2001 was 2,405 pesos to the dollar in January, compared with 2,401 pesos in the October survey (Figure 55).
The biggest nominal devaluation for this year (10.9%) was expected by the sector of mining and industry, and the lowest (6.2%) by unions.

5. Growth and employment

In January, expected GDP growth for 2001 averaged 3.3%, within a range of 2,8% and 3.7%, very similar to the figures reported in the October survey. January's growth expectations for 2002 averaged 3.8%, with a 3.3% minimum and a 4.2% maximum (Figure 56). It is to be noted that in April 2000, some 9.0% of respondents expected the GDP to contract; by October their number had dropped to 1.3%, and in the latest survey no one expected a GDP contraction in 2001.

The fastest growth for this year (3.4%) was expected by retail chains, and the slowest (3.2%) by labor unions.

Figure 57 illustrates expectations about workforce variations within three to six months, and six months to a year. Between October 2000 and January 2001, although the percentage of respondents expecting a workforce expansion within three to six months fell from 14.8% to 13.9%, the percentage expecting it within a somewhat longer period rose from 13.6% to 19.0%. Most respondents (64.6%), however, continue to expect the workforce to remain unchanged in the near future.

The largest workforce expansion in the short and medium term is expected by retail chains and the transport and communications sector.

B. Forecasts of main macroeconomic variables by local and foreign analysts

Table 12 presents forecasts of Colombia's main macroeconomic variables for 2001, made by a number of local and foreign analysts in the first quarter of the year.

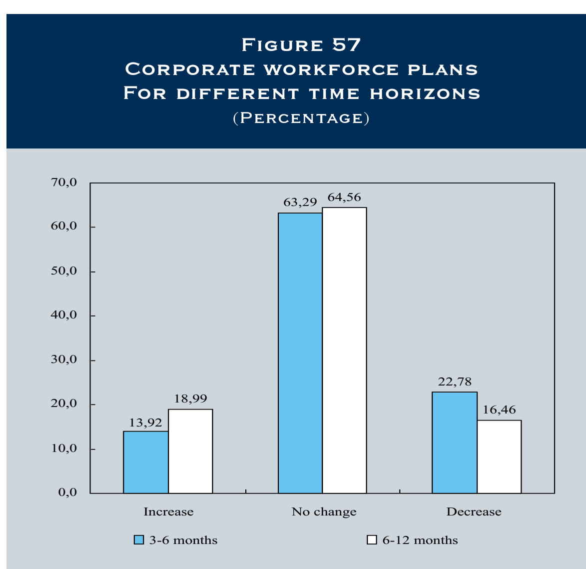


Figure 57
Corporate workforce plans For different time horizons
(Percentage)

Local analysts expect a real GDP growth of 2.9% for 2001, somewhat lower than the 3.2% average expected by foreign analysts. Compared with their respective forecasts of three months ago, the local figure has remained unchanged, while the foreign one has come down.

On average, inflation is forecast by local analysts to run at 9.4%, down from 9.8% predicted by them three months ago, but higher than the foreign analysts' forecast of 9.0%, which too is down on the latter's figure of three months ago.

In the past three months, both local and foreign analyst have raised their expectations of devaluation, the former now forecasting an exchange rate of 2,410 pesos to the dollar by the end of 2001 (a devaluation of 8.1%), and the latter predicting an exchange rate of 2,436 pesos (a devaluation of 9.3%).

Neither local nor foreign observers presently expect any big pick-up in the DTF deposit rate over this year, most forecasts placing it in the range of 14.0% to 15.0%. The fiscal deficit for 2001 is forecast by foreign analysts to run at 3.4% of GDP, not too far from local predictions.

Foreign analysts reckon that the current-account deficit this year will be 1.7% of GDP, only 0.2 percentage points lower than the mean of the two forecasts made by local observers.

Analysts forecast no decline in the jobless rate. Though very few observers have made projections about unemployment for 2001, those who have done so expect it to range between 18.0% and 19.1%.

Table 12
Forecasts of main macroeconomic variables for 2001

	Forecast date	Real GDP growth %	CPI Inflation %	Nominal exchange rate (yearend)	Nominal deposit rate (yearend)	Deficit (% of GDP) Fiscal	Deficit (% of GDP) Currt. acct	Unemployment %
Local analysts								
Revista Dinero **1/**	9-Abr-01	2,6	9,3	2.500	15,0 **2/**	3,2 **3/**	1,9	18,5
Javier Fernández Riva **4/**	28-Feb-01	2,8	9,6	2.391	14,4			19,1
Suvalor-Corfinsura **5/**	26-Ene-01	3,4	9,4	2.407	15,4	2,8		
ANIF **6/**	8-Feb-01	2,8	7,9	2.407	14,0	3,3	1,8	
Fedesarrollo **7/**	Ene-01	3,0	11,0	2.345	16,0 **2/**			> 17,0
Average		**2,9**	**9,4**	**2.410**	**14,6**		**1,9**	**18,9**
Foreign analysts								
WEFA **8/**	Mar-01	3,5	8,2	2.435		5,2	1,7	18,0
Goldman Sachs **9/**	31-Mar-01	2,5	9,0	2.350-2.450	14,5-15,0	3,2	0,9	
IDEA global **9/**	31-Mar-01	3,8	8,0	2.410		2,7	1,6	
J. P. Morgan **9/**	31-Mar-01	3,0	8,0			4,5	1,4	
ABN Amro Bank **9/**	31-Mar-01	3,5	9,5	2.475		3,0	2,2	
Salomón Smith Barney **9/**	31-Mar-01	3,3	10,0	2.430		3,0	1,3	
Deutsche Bank **9/**	31-Mar-01	2,9	9,8	2.450		3,3	3,3	
Morgan Stanley **9/**	31-Mar-01	3,0	9,5	2.415		2,8	0,7	
Merrill Lynch **9/**	31-Mar-01	3,4	9,3			2,9	2,2	
Average		**3,2**	**9,0**	**2.436**		**3,4**	**1,7**	**18,0**

1/ *Revista Dinero, April 9, 2001, No. 130.*
2/ Average for the year.
3/ IMF methodology.
4/ Seminar on Economic and Financial Outlook., February 28, 2001.
5/ "Colombia 2001: Macroeconomic forecasts," January 26, 2001
6/ ANIF-Fedesarrollo Seminar, February 8, 2001.
7/ "Outlook for 2001", January 2001.
8/ *Latin America* Monthly Monitor, March 2001.
9/ Cómo nos ven afuera? Report by the Banco de la República's Monetary and Reserve Department (SMR), March 31, 2001

IV

International context

A. General aspects

Although world economic growth for 2000 rose to around 5.0%, clear signs of a slowdown began to emerge in the fourth quarter. Growth forecasts for 2001 made at the end of 2000 have therefore been revised down. The world economy is now expected to grow at a slower pace this year as a result of economic slowdown in the US, stock-market fragility worldwide, and weakness in the Japanese economy. For this reason and in view of lower prices for oil and major commodities, inflation can be expected not to be the main cause for concern this year.

Central banks have not been slow to respond to the past two quarters' signs of economic cooling. Hence the US monetary authority's substantial easing of policy after a highly restrictive stance in 2000, and its reliance on this change to reactivate the economy by the second half of the year. If this strategy produces the expected results, global growth this year may hover around 3.0% (Table 13).

On economic-growth projections for Colombia's main trading partners, discussed in greater detail below, the country's foreign trade is expected to show a 2.2% weighted overall expansion by volume for 2001, down from 3.0% predicted in the previous quarter.

1. United States

Real GDP growth in the United States was 5.0% for 2000. Despite this satisfactory result, the fear referred to in the previous Report of a possible recession in the first half of 2001 persists today, heightened by poor growth in the final quarter of 2000 and also by the negative performance this year of several leading indicators (Figure 58).

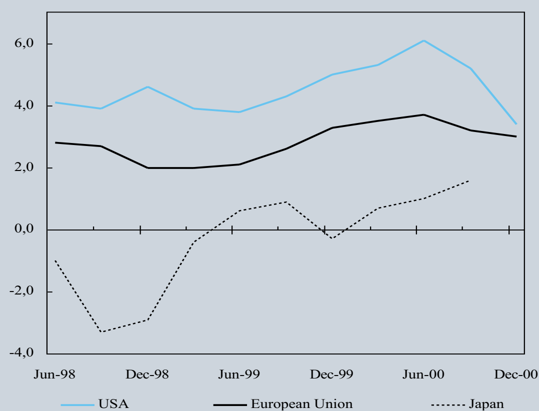
In effect, annualized quarterly growth over the last three months of 2000 was 1.0%, the lowest since the first quarter of 1997. It was driven by an expansion, at annualized quarterly rate, of 2.8% in household consumption and 2.9% in government spending, both lower than the previous quarters' averages. This growth was in contrast to a fourth-quarter contraction of 6.4% in exports and 4.1% in overall investment, at annualized quarterly rate. Lastly, imports plunged from a 17.0% expansion in the third quarter to a -1.2% contraction in the fourth, at annualized quarterly rate.

Table 13
Actual and forecast growth for Colombia's main trading partners

	2000	2001(*)
United States	5,0	1,4
Japan	1,7	1,1
European Union	3,3	2,6
Argentina	0,2	1,6
Brazil	4,2	3,8
Chile	5,4	5,1
Ecuador	2,3	3,7
Mexico	6,9	3,4
Peru	3,8	1,5
Venezuela	3,2	3,9

(*) Forecasts to December.
Sources: Deutsche Bank and *The Economist*

Figure 58
USA, European Union, Japan,
Quarterly GDP Growth, at Annual Rate
1998:6 - 2000:12



Source: Bloomberg.

It is obvious from early economic indicators available for the first quarter of 2001 that the US economy's state of health continues to be shaky. According to the Federal Reserve Board's March 17th report[14], most Fed districts showed a modest slow growth over the first two months of this year, with a marginal rise in consumer spending resulting mainly from the usual large end-of-winter sales. Car sales remained steady relative to December and were thus lower than in the first two months of 2000. The Fed also pointed to a slowdown in manufacturing and an annual decline of about 0.6% in industrial output over January and February. It is important to note that this contraction caused capacity utilization to fall by 0.7%, down to 79.4% in February, its lowest level since February 1992.

Unemployment in the United States edged up from 4.0% in December to 4.3% in March. Although the US labor market continues to be tight, there are clear signs in more than half the Fed districts that it is loosening. There is also evidence suggesting that demand for workers has declined in the manufacturing, construction and technology sectors. Likewise, employers reported lower wage pressure in the first months of the year.

Not all indicators were negative, however, which makes it difficult to know at this point whether the US economy is shrinking or just growing at a very slow pace. In effect, the consumer-confidence index was 12.9 points up in March relative to its level in February. This pick-up was surprising, though, given the present fragility of the stock market and its acknowledged influence on consumer spending. Various international analysts therefore regard it as an isolated development that does not foreshadow a medium-term trend break, particularly in view of the poor results disclosed in the first quarterly corporate earnings reports.

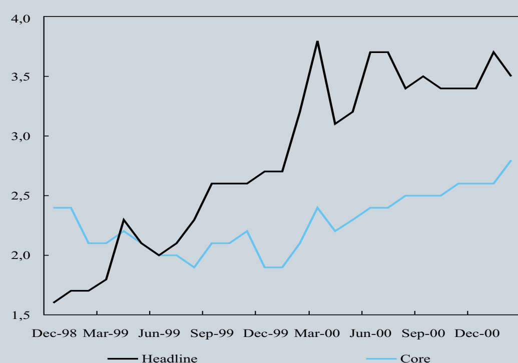
The consume-price index edged up by 0.3% in February, a favorable development considering the previous months' results. It brought annual inflation to 3.5% and core inflation to an annual rate of 2.8%. This lower inflation, together with low inflation expectations and lower capacity utilization, suggests a controlled inflation rate during much of the year, providing ample scope for monetary-policy changes by the Fed (Figure 59).

The Fed reacted swiftly to the past two quarters' poor growth results by focusing its monetary policy so far this year on sharply reducing the interest rate. Thus, after three first-quarter reductions, each of 50 basis points (bp), the interest rate stood at 5.0% in March.

The intervention rate of interest is now lower than it was before last year's increases. Figure 60 illustrates the Fed's monetary policy since December 1999. As can be seen, the interest rate rose by 100 bp over the first half of last year, then remained stable over the entire second half, before plunging by 150 bp in the first quarter of this year. The Fed's measures this year have therefore clearly tried to reverse completely any contractionary effect produced by its restrictive monetary policy of early last year.

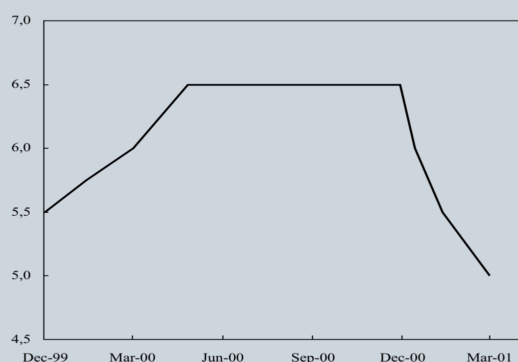
[14] Information obtained from the Beige Book, a Fed publication summarizing the US economy's behavior on economic information from the Fed's 12 districts: Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco.

Figure 59
United states
Headline and core inflation rates
1998:12 - 2001:2



Source: Bloomberg.

Figure 60
Us federal-funds interest rate



Source: Bloomberg.

The US economy is presently still expected to perform better in the second half of this year, helped by the Fed's lower inflationary bias and by the Bush administration's planned tax cuts for this and coming years. If things turn out as predicted, the economy should grow by 1.4% in 2001 and at a faster pace in 2002. This new growth forecast for 2001 is a downward revision of the approximately 3.0% prediction made three months ago.

2. European Union

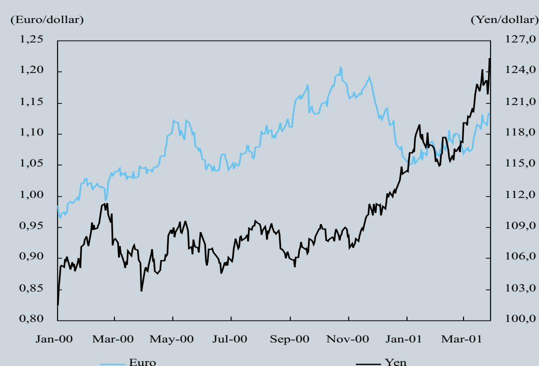
The 15 countries of the European Union showed a real GDP growth of 3.3% for 2000, significantly higher than for 1999, largely owing to a 5.3% expansion in gross fixed capital formation. Moreover, their exports rose by 10.9% and their imports by 10.0% relative to 1999, resulting in a positive external balance. The only flaw was, once more, slower growth (2.7%) in household consumption.

Despite some signs of a slowdown in the first quarter of 2001, there is still little risk of a recession. The 15 countries' industrial-output index showed a 1.9% contraction in January, while Germany's business-climate index in February was down to 94.9 points, its lowest level since May 2000. The economic slowdown in the United States and Japan could reduce the region's growth by lowering its exports. Nevertheless, tax cuts in France, Germany, Italy and other European countries, together with already depressed commodity prices, should help to diminish the adverse effects of a cooling world economy and prevent the region from going into recession.

The euro declined once more against the dollar over the first quarter of 2001, after remaining relatively stable at the end of last year. Most international analysts now expect it to reach parity with the dollar by the end of 2001, for two reasons: rapidly falling US interest rates, and weakening corporate profits in the United States. With interest rates falling faster in the United States than in the European Union, capital inflows into Europe are expected to increase, raising the value of the euro. Similarly, declining US corporate profits should give an even greater boost to capital outflows to other markets, including the European market (Figure 61).

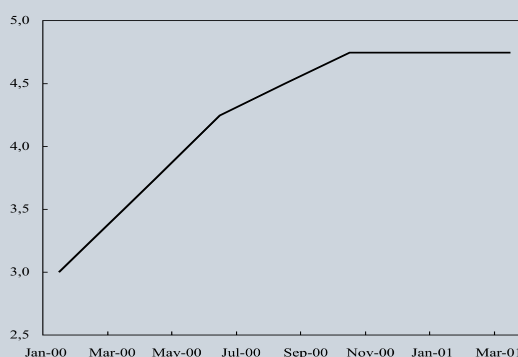
Inflation in the euro area rose at an annual rate of 2.4% in January and 2.6% in February of this year (Figure 62). Although these rates are well above the European Central Bank's 2.0% target, and there was considerable concern about inflation a month or two ago, some members of the BCE's Board have displayed a lower inflationary bias, laying greater stress, in their recent statements, on the possible consequences of world economic cooling for the region's economy. One may therefore safely hazard a guess that at the BCE's next meeting the interest rate will be lowered by at least 25

Figure 61
Euro and yen exchange rates
Against the dollar



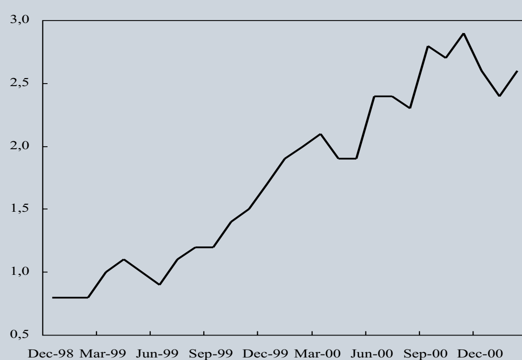
Source: Bloomberg.

Figure 63
European central bank's repo rate



Source: Bloomberg.

Figure 62
European union, headline inflation rate
1998:12 - 2001:2



Source: Bloomberg.

basis points, in an attempt to boost the economy and counteract the fall in export demand in the first half of the year (Figure 63).

Lastly, the European Union is expected to grow by 2.6% in 2001, thanks entirely to a stronger domestic demand resulting from lower taxes, higher expected growth in both real wages and employment, and greater private investment.

3. Japan

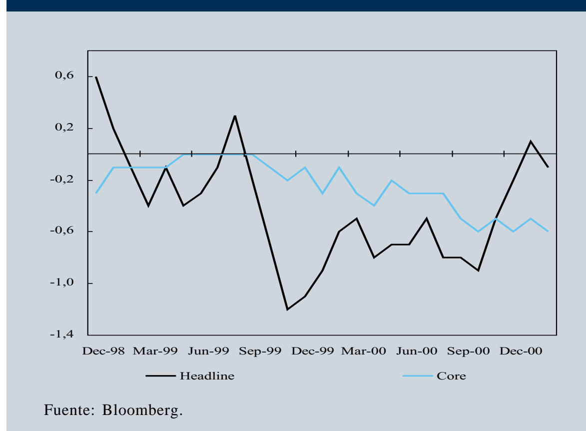
The Japanese economy expanded by 1.7% in 2000, mainly driven by government spending and private investment. Yet this modest recovery seems to have been checked in the first months of this year by economic slowdown in the United States and East Asia, with a consequent decline in Japan's net exports in the first quarter of 2001.

Japan's prospects of economic growth are also being affected by other risks, which may end up hampering the country's macroeconomic management. First, corporate profits stagnated over the first quarter. This could depress household incomes and undo the weak first-quarter recovery in consumption that is evidenced by slight improvements in consumer confidence, car sales, and travel spending. Second, stock levels have risen sharply this year, which may be the factor behind the slowdown in the industrial sector. Lastly, according to the business-climate index, expectations continue to be low, registering a March level similar to that of 1997; and there is also a perception that the structural reforms to the financial system have failed to produced the expected results.

At annual rates, headline inflation continued to be minimal in both January and February, while core inflation remained negative (Figure 64), despite an ever rising trend in import prices caused by depreciation of the yen (Figure 61).

To curb the deflationary trend, the Central Bank of Japan has decided to change its monetary-policy strategy by using a monetary aggregate, instead of the interest rate,

FIGURE 64
JAPAN HEADLINE AND CORE INFLATION RATES
1998:12 - 2001:3



Fuente: Bloomberg.

as the policy target. Accordingly, it intends to supply banks and the economy in general with all the liquidity required to reach a positive rate of inflation. It should be noted that Japan's interest rate hovered around 0.15% during the first quarter. The Central Bank has explicitly stated that this measure is intended to reactivate the economy, while stressing at the same time the urgency of adopting structural reforms, particularly to the financial system.

For the above reasons, international analysts reckon that Japan's prospects of growth in 2001 are modest and expect it to achieve a rate of around 1.1%, down from the 3.4% forecast last December.

4. Latin America

The economies of Latin America started to show positive growth again in 2000 after almost two years of contraction. And up to a few months ago even stronger growth was expected in 2001 for many of the region's countries, but the sharp slowdown in the US economy, combined with lower export commodity prices, has caused growth forecasts to be revised down. Other negative factors include recent developments in Argentina's economic and political crises, and political uncertainty in several countries of the region.

It is important to point out that the slowdown in the US affects each country in different ways. Thus, while falling imports in the Unites States affect all countries of the region adversely, the lowering of the interest rate by the Fed comes as a relief, particularly for Argentina and Brazil. Consequently, the net effect of the US slowdown might be neutral for Brazil, but Mexico will probably suffer, while Argentina could benefit from lower interest rates.

Argentina's economic and political crisis has led the government to cut spending, and to impose new taxes on financial transaction to increase revenues. Consumer spending is sure to deteriorate. The favorable effect of the Fed's interest-rate cut and a calmer climate created by the government's new stabilization program may together allow Argentina to expect a positive growth of 1.6% in 2001. It should be pointed out that most international analysts still do not consider devaluation a possibility.

In the Andean region, Venezuela grew by 3.2% in 2000. Its growth was driven by oil exports and government spending, while expansion in private investment remained very weak. Public spending is expected to be the engine of economic growth again in 2001, with real GDP rising by about 3.9%. Ecuador began to show signs of recovery in 2000 thanks to dollarization, achieving a real growth of 2.3% for the year. Despite political factors that interfere with the strengthening of its recovery, Ecuador's economy is expected to grow by about 3.7% in 2001, thanks to privatizations, greater price stability, and investor confidence.

B. COMMODITY PRICES

Over the first quarter of 2001 the prices of major commodities continued on the downward trend they had shown for much of last year. The Economist's overall commodities price index fell by 2.9% between December and March, ending March 5.3% lower than a year earlier.

The first-quarter fall in world commodity prices occurred mostly in products for industrial use. The

Economist's industrials index declined by 5.1% from December to March, registering a March level 9.1% lower than 12 months before, while the food-price index fell by about 1.2% over the same period, ending the quarter 2.3% lower than in March 2000 (Figure 65).

The price behavior of Colombia's main commodity exports can be analyzed with the help of an index incorporating price information on coffee, oil, ferronickel, sugar, coal, and bananas (Figure 66). These products account, on average, for 51.% of the country's exports. The index rose steeply last year, reflecting the sharp rise in the price of oil and an improvement in the price of sugar. On the basis of forecasts by the IMF and projections by exporters' associations, the index is forecast to fall by 12.4% this year with respect to its level in 2000, despite a 16.7% surge expected in the price of sugar. Price falls are expected for the index's other products, particularly oil and ferronickel, on account of the slowdown in world economic growth.

1. Oil

Last year's increases in oil-production, and the drop in demand caused by both the US economy's cooling and the end of winter, resulted in an oversupply on the world oil market in the first months of this year. OPEC, foreseeing a possible price fall stemming from this oversupply[15], has reduced daily crude production twice so far this year, the first time by 1.5 million barrels from February 1st, and the second time by a million barrels from April 1st. OPEC's announcements, however, produced only a temporary price pick-up in February, and in March the price of oil began once more to decline, ending the quarter at $26.4 a barrel, one of its lowest levels in the past 12 months (Figure 67).

Despite OPEC's production cuts in the first quarter of this year, the price of crude is expected to be lower

[15] Under the band mechanism established by OPEC, crude prices should remain between $22 and $28 a barrel for OPEC's basket of crude oils. In terms of the US West Texas Intermediate (WTI) indicator, this price range is approximately equivalent to $25 - $30 a barrel.

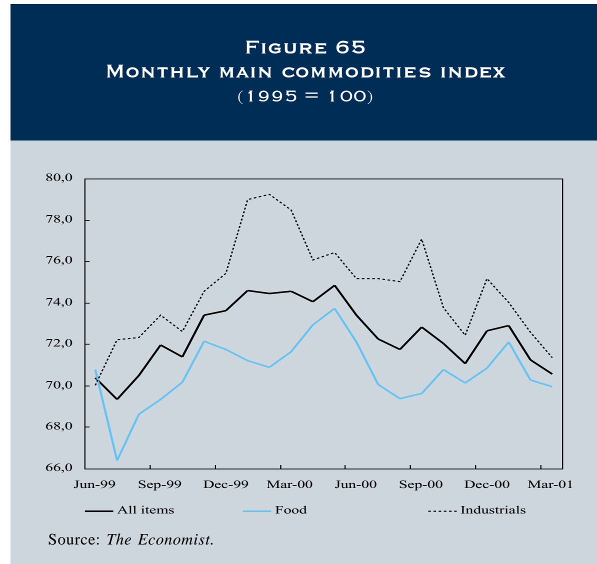


FIGURE 65
MONTHLY MAIN COMMODITIES INDEX
(1995 = 100)

Source: *The Economist.*

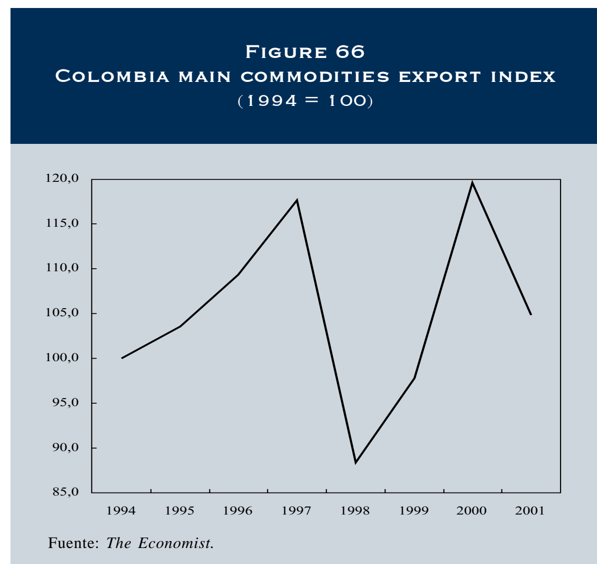


FIGURE 66
COLOMBIA MAIN COMMODITIES EXPORT INDEX
(1994 = 100)

Fuente: *The Economist.*

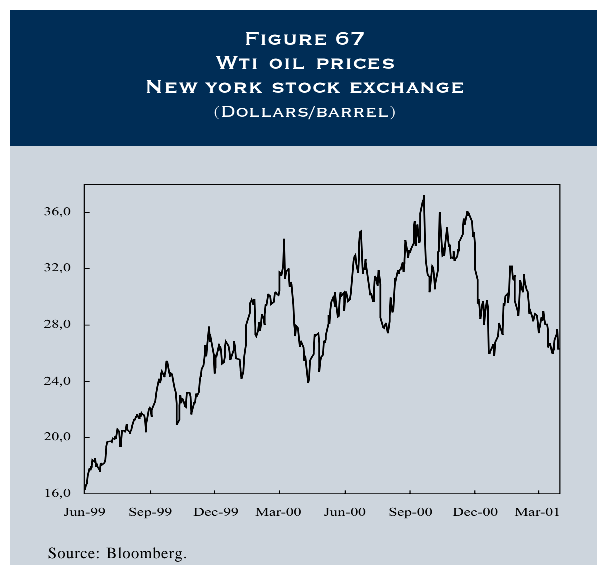


FIGURE 67
WTI OIL PRICES
NEW YORK STOCK EXCHANGE
(DOLLARS/BARREL)

Source: Bloomberg.

at the end of 2001 than a year earlier, averaging between $25 and $26 a barrel, as predicted in the previous Report. But that is not to rule out the possibility of even lower prices in the second half of the year, if world demand weakens more than expected, the US economy slows at a faster pace, or non-OPEC members and Iraq[16] raise their oil production by more than projected.

Moreover, some analysts believe that OPEC members have begun to disregard production quotas, to take advantage of high prices and raise their market shares. In effect, the data suggest that the 1.5 million-barrel reduction effective from February 1st was not adhered to and the actual production cut came to about a million barrels a day. This fact becomes another determinant of price behavior over the rest of the year, because if OPEC members continue to disregard production quotas crude prices could drop lower than expected.

The rise in the price of oil in January and its subsequent fall in February and March was reflected in the price behavior of forward sales contracts on the New York Stock Exchange (Figure 68). Forward sales prices climbed in January, indicating uncertainty about the availability of crude, but declined in the following two months, on expectations of a well-supplied market. On March 30th prices of one-, six- and twelve-month forward contracts were $26.3, $26.2 ad $25.0 respectively, well below prices two months earlier ($32.2, $27.5 and $25.4). Thus, six- and twelve-month contracts suggest that the market expects oil prices to be lower this year than they were for the better part of 2000.

2. Coffee

The world price of coffee continued to fall over the first quarter of 2001, prolonging last year's declining trend. Despite application of the "Coffee Retention Plan", the price of Colombian coffee in the first week of January averaged 71.4 cents a pound, the lowest in

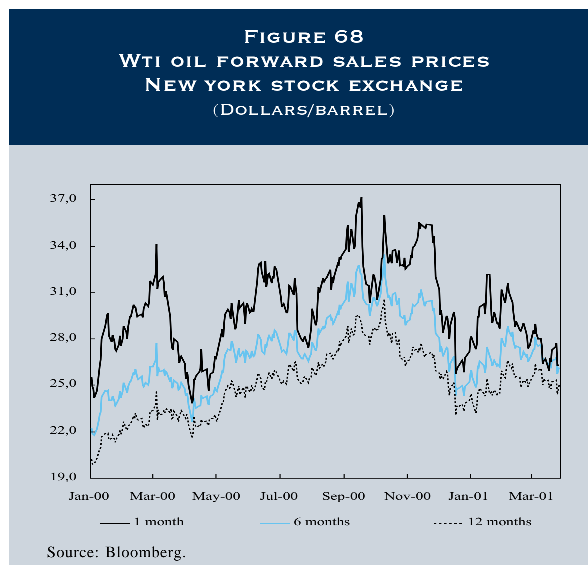


FIGURE 68
WTI OIL FORWARD SALES PRICES
NEW YORK STOCK EXCHANGE
(DOLLARS/BARREL)

Source: Bloomberg.

FIGURE 69
COLOMBIAN ARABICA COFFEE PRICE
NEW YORK STOCK EXCHANGE
(CENTS/BARREL)

Source: Bloomberg.

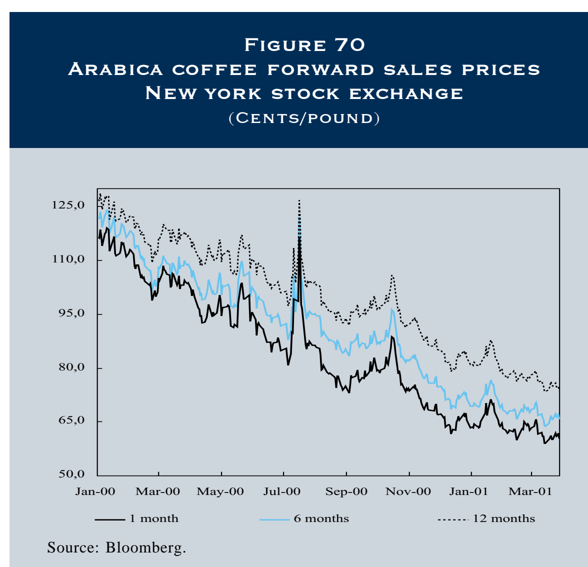


FIGURE 70
ARABICA COFFEE FORWARD SALES PRICES
NEW YORK STOCK EXCHANGE
(CENTS/POUND)

Source: Bloomberg.

[16] Iraq's production capacity is estimated at 2.8 million barrels a day, or about 4.0% of world oil production.

recent years (Figure 69). The same behavior was shown by forward sales prices (Figure 70). The fall in world coffee prices since January 2000 is largely attributable to mounting coffee stocks in consumer countries, particularly the United States.

The Retention Plan[17] adopted by the Association of Coffee Producing Countries[18] has so far had no effect on world supply, and coffee stocks continued to be high in consumer countries at the end of the first quarter. The Plan is still being applied, though, and Colombia has fixed its withholding quota at 1.8 million bags for this year[19]. As the Association's measures have failed to reduce oversupply in the market, the price of coffee is unlikely to pick up over the rest of the year and is expected to average about 75 cents a pound in 2001.

C. Financial outlook

In the first quarter of 2001 the financial outlook for Latin America continued to be strongly influenced by expectations about the US economy. A slowdown in the United States is usually bad news for Latin America, for it affects the region's exports. But it is also generally accompanied by an interest-rate cut by the Fed, which benefits the region by reducing the cost of its borrowings and by making it more attractive to foreign capital.

So far this year markets seem to have attached greater weight to the positive aspects associated with interest-rate cuts. This is suggested by lower spreads on 10- and 30-year sovereign debt for all countries of the region except Argentina and Brazil. In the medium term, however, these lower spreads can only be sustained if the US economy's slower growth does not seriously affect demand for exports from Latin American countries and badly weaken their growth.

Apart from the US economy's behavior, another factor still posing a risk for the region's financial outlook for the coming months is the behavior of Argentina's economy, because of the contagion effect that a massive capital flight from Argentina could have on emerging markets.

One sign of investors' apprehension about Argentina is a surge of 175.3 basis points in its sovereign-debt spread over the first quarter of 2001. Similarly, the recent devaluation of Brazil's currency, the real, raised the spread on 10-year Brazilian debt from 798.1 basis points in early January to 834.5 points at the end of March. The fact that foreign investors are constantly monitoring Argentina's and Brazil's economic results may heighten uncertainty about the region and its vulnerability.

Lastly, spreads on Colombia's sovereign debt behaved strikingly well over the first quarter of 2001, (Figures 71 and 72), falling by 145.1 basis points on 10-year debt and by 103.8 points on 30-year debt.

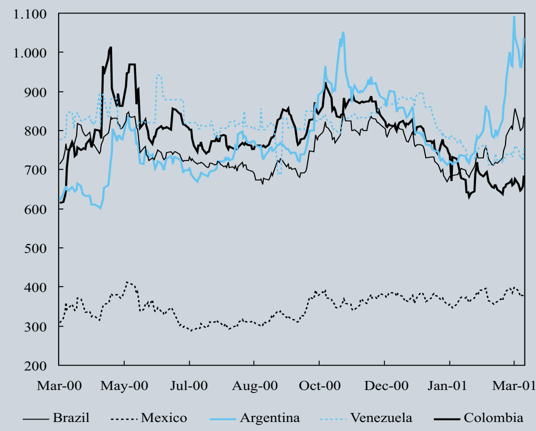
This development may have resulted from the government's resumption of negotiations with guerrilla groups, a move that improved the foreign and national investors' perceptions of the country.

[17] Under the Plan, coffee exports are to be reduced by 20% if the price drops below 95 cents a pound.

[18] The ratified members of the Association are Brazil, Colombia, Costa Rica, El Salvador, India, Indonesia, Venezuela, Angola, Ivory Coast, Kenya, Tanzania, Togo, Uganda and the Democratic Republic of Congo.

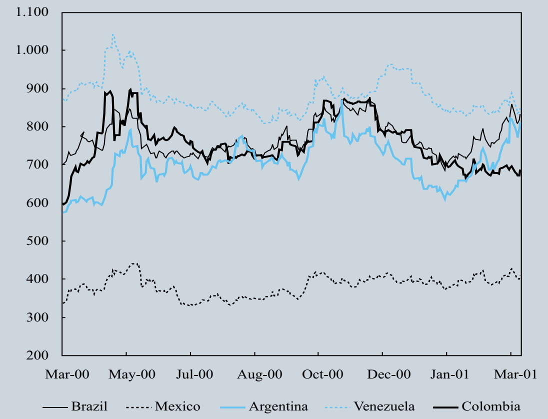
[19] Colombia's coffee exports this year are expected to amount to 10 million bags.

Figure 71
Spreads on 10-year Latin American bonds
(Basis points)



Source: Bloomberg.

Figure 72
Spreads on 30-year Latin American bonds
(Basis points)



Source: Bloomberg.

V

Inflation forecasts

A. Forecasts for 2001 and 2001, using the transmission mechanism model and other models

The inflation forecasts for 2001 and 2002 contained in this section are based on price information available up to March. This Report presents, for the first time, forecasts made by using a small-scale macroeconomic model called the "transmission-mechanism model," described in greater detail in the box set out further below. This model has the advantage of predicting simultaneously the behavior of key macroeconomic variables such as inflation and economic growth. Moreover, its predictions depend on an interest-rate path that is endogenous to the inflation forecast's deviations from the target. Furthermore, with this methodology, expected supply shocks can be incorporated into prices more easily than with the old methodology. This section also refers to projections made by using previous Reports' forecasting models.

The assumptions for this Report's forecasting do not differ greatly from the December Report's. Thus, the devaluation incorporated into the models assumes a relatively stable real exchange rate for this year and the next. Price growth for imported goods continues to be consistent with this devaluation and with a 3.0% external inflation. Similarly, the monetary aggregates are assumed to grow this year at a rate consistent with the monetary base's reference line set by the Bank's Board of Directors. This growth also takes into account the probable effect on cash demand of the higher rate of financial-transaction levy applied from the beginning of this year. The monetary aggregates' growth in 2002 is assumed to be in line with a 6.0% inflation target.

In addition to the above assumptions, the basic scenario for forecasting inflation and growth envisaged four supply shocks likely to affect consumer inflation in the course of this year. The first shock includes the effects of dismantling utilities subsidies, and of higher energy-transmission costs caused by public-order problems. It is assumed that these developments will raise the utilities consumer-price index for (water supply, sewerage, electricity and gas) by about 19% over this year.

A second shock is connected with the domestic price of fuel. This is tied to the world price of oil, which is currently expected to average $25 dollars a barrel[20] in 2001 and to fall by 11% from this level in 2002. But since the domestic price in Colombia tends to be fixed with a long lag behind the world price, the expected reduction in the latter will not be fully felt in the domestic price until the second half of this year. Over the first half, therefore, the domestic price will continue to be affected by the high oil prices of last year and early 2001. In terms of domestic fuel prices for consumers, the foregoing is assumed to translate into a 12.0% increase by the end of this year.

In the third place, the impact of a 1.2% import-tariff rise introduced by the tax reform early this year was

[20] This is the price of West Texas Intermediate, which is the reference price for crude oil from Colombia's Cusiana field.

taken into account. This shock was modeled through import prices and was estimated to produce a minimal effect (less than 1.0%) on consumer prices both this year and next.

Lastly, the basic scenario envisaged a supply shock in farm produce, caused by weather conditions. To get a clearer picture of the impact of this shock, the central model's forecasting was supplemented by a satellite model of food prices. The latter takes into account the fact that food prices in Colombia are strongly affected by rainfall, and that their medium-term fluctuations trace a so-called "cobweb pattern." That is to say, a period of high prices is followed by a period of low prices and vice versa, according as the price level boosts or depresses supply. The full cycle (high-low-high prices) has been found to stretch over eight quarters in Colombia, which means that a period of low prices can be expected to be followed by one of high prices after a lag of four quarters.

The satellite model in question predicts that food prices will increase over the second quarter (9.5%) and the third (by 10.8%), then start falling again in the fourth quarter, ending the year with an annual variation of 8.0%. This behavior is attributable in part to a mild drought in January and February, which should reduce food supply toward the middle of the year, causing food prices to rise. Second- and third-quarter predictions relied on rain forecasts from IDEAM, an environmental agency, which indicated that rainfall during that part of the year would be in line with historical averages.

Figure 73 presents the central food-inflation forecast together with its uncertainty level and risk balance. The risk balance takes into account risks pertaining to the current situation, especially uncertainty about the weather forecast. In Figure 73 the risk balance has an upward bias because the satellite model's central vision is slightly above the central vision of the transmission-mechanism model, and also because a mild drought may have a greater effect on food prices than is anticipated by the central scenario.

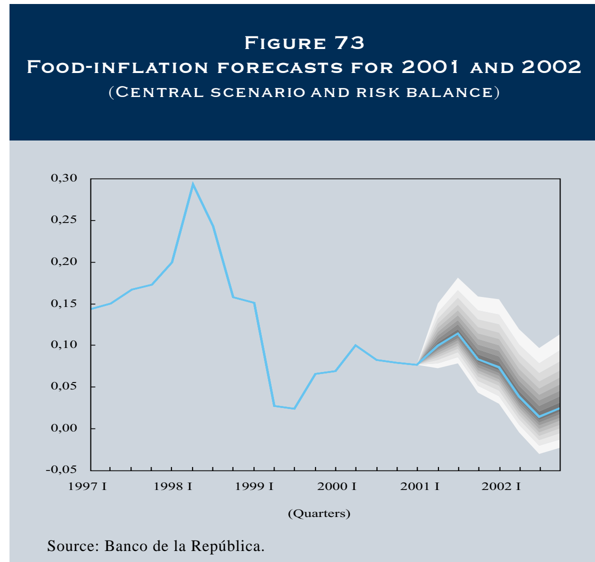


Figure 73
Food-inflation forecasts for 2001 and 2002
(Central scenario and risk balance)

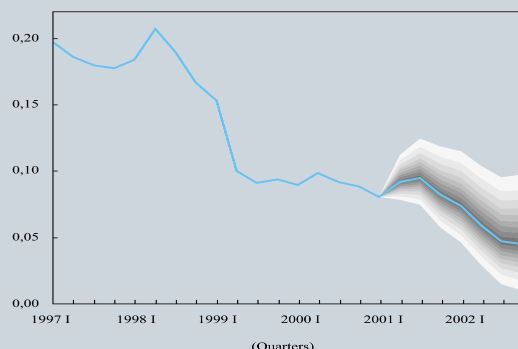
Source: Banco de la República.

In addition to the shocks described above, the central scenario for forecasting inflation using the transmission-mechanism model takes into account the effects of the Constitutional Court's decisions on wage indexation. Inclusion of these effects causes inflation to rise by 0.2% over 2001 and by 0.4% over 2002 with respect to the scenario excluding the Court's decisions.

Taking into account the above assumptions and shocks, the transmission-mechanism model forecasts a consumer inflation of 8.2% for 2001 and 4.5% for 2002. Core inflation (excluding food) is predicted to be 7.4% this year and 5.3% next year. To judge by these forecasts, therefore, this year's 8.0% inflation target and next year's 6.0% target are still feasible. The central forecast suggests that consumer inflation may rise over the next two quarters, mainly because of the anticipated increase in food prices, but also because of the expected price behavior of oil and utilities. But it should fall during the fourth quarter.

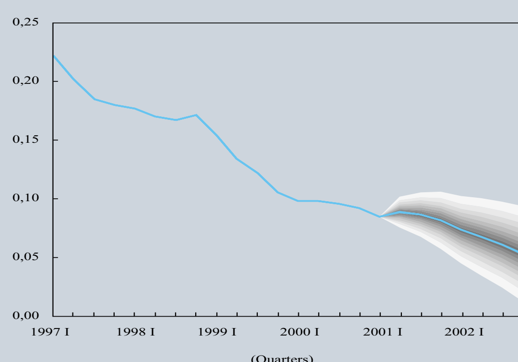
Figures 74 and 75 show the central forecasts and risk balances of consumer and core inflation. The risk balance of headline inflation has an upward bias because of uncertainty surrounding the forecasts of food prices and devaluation.

Figure 74
Consumer-inflation forecasts for 2001 and 2002
(Central scenario and risk balance)



Source: Banco de la República.

Figure 75
Forecasts of non-food inflation for 2001 and 2002
(Central scenario and risk balance)



Source: Banco de la República.

The inflation targets' feasibility is supported by findings of the combined-forecasting method, which predicts a 6.8% inflation for this year, lower than predicted in the previous quarter's Inflation Report. As described in earlier Reports, the combined-forecasting methods pools individual forecasts obtained from different time-series and structural models and has proved to be a good predictor of inflation over a one-year horizon.

B. Risks for 2001

Inflation forecasting for 2001 based on information up to March continues to augur well for meeting the target, as did the forecasting presented three months ago, though some risks identified at that time have intensified since then.

The most serious risk today may involve a higher-than-expected devaluation. As stated above, the inflation forecasts reported here are consistent with a nominal devaluation that ensures real exchange-rate stability. Present circumstances, however, may complicate this scenario. They arise notably from uncertainty about the future performance of emerging countries including Colombia, in view of the US economy's slowdown and Argentina's economic plight. In the case of Colombia, adverse effects on capital flows might make it necessary to have a higher real exchange rate of equilibrium. This would entail a higher-than-envisaged nominal devaluation and put further pressure on domestic prices.

In addition, there is still uncertainty about food prices. These might pick up in the coming months because of the normal course of their cycle and as a result of climatic conditions. Part of the pick-up should come from the price of meat, which has a big weight (4.0%) in the consumer basket. As mentioned in Chapter I, such factors as external demand and the holding-back stage of the cattle-raising cycle may cause meat prices to rise by more than consumer inflation.

The risk of high world fuel prices in 2001 appears smaller today than at the time of the December Report, to judge by the price drops registered since mid-February. This is a favorable development that may help to slow inflation in the second half of the year.

The transmission-mechanism model and Inflation objective

I. Short-term inflation control

Inflation is a long-term monetary development, but in the short term it is largely determined by the state of the business cycle, and by some shocks. In the case of Colombia's economy, the main shocks include periods of drought and their impact on food prices, the inflation target's movement, terms-of-trade shocks, and country-risk changes.

Interest rates need to be suitably managed to counteract the effects of such shocks on inflation and neutralize the differences they cause between recorded inflation and the inflation target. Interest-rate changes affect inflation through different channels, which the Bank can formalize in an inflation-objective model or transmission-mechanism model.

II. Transmission mechanisms of monetary policy

In Colombia the transmission mechanisms of monetary policy include the aggregate-demand channel, the direct and indirect exchange-rate channels, the expectations channel, and the costs channel.

The aggregate-demand channel is the causality chain formed by the real interest rate - output gap - inflation. The nexus between the real interest rate and inflation is given by an aggregate-demand curve; the nexus between the output gap and inflation is established by the Phillips curve.

The direct exchange-rate channel is the nexus between interest rates, exchange rate, and inflation. The effect of the interest rate on the exchange rate is given by the open-parity ratio. The impact of the exchange rate on inflation is known as "pass-through" and is produced in two stages: first, the effect of the nominal exchange rate on import inflation; second, the effect of import inflation on overall inflation.

The indirect exchange-rate channel is the effect of the real exchange rate on the output gap through the aggregate-demand equation, and the effect of output on inflation through the Phillips curve.

The expectations channel works on the principle that lower expectations of future inflation can cause current inflation to fall. It is brought into play by including inflation expectations in the Phillips curve.

Lastly, since in the long term the price of goods can be broken down into their production costs, the cost-inflation channel is the long-term effect that wages and import prices have on inflation.

III. The transmission-mechanism model

The transmission-mechanism model tries to capture these channels and the Colombian economy's particular shocks. It is being continually upgraded to include updated estimates and incorporate specific transmission mechanisms and specific shocks. The model presently consists of eight estimated-behavior equations, plus four calibrated-behavior equations and some identities and definitions. In addition to the central model there are a number of satellite models intended to delve deeper into the effects of some shocks on inflation so as to provide fuller information for central-model forecasting. There are presently three satellite models. Two of these study food inflation in greater depth, the first one by changing the central-model specification to a model with a food-inflation equation, and the second by disaggregating food inflation into its main monthly components. The third model captures the effect of public-sector wage indexation on inflation.

The different equations of the transmission-mechanism model include notably the following: (1) Phillips curve, (2) aggregate demand, and (3) interest-rate rule:[1]

$$\pi_t = \alpha_1^{\pi} \pi_{t+1|t} + \alpha_2^{\pi} \pi_{t-1} + (1-\alpha_1^{\pi} - \alpha_2^{\pi})\pi_{t-3} + \alpha^{y} y_{t-1} + \alpha_1^{R} \pi_t^{R} + \alpha^{X} x_{t-1} - \alpha^{z} z_{t-4} + \varepsilon_t^{\pi} \quad (1)$$

$$y_t = \beta_1^{y} y_{t-1} + \beta_2^{y} y_{t-2} - \beta^{r} r_{t-1} + \beta^{q} q_{t-1} + \beta_1^{\tau} \tau_t + \beta_2^{\tau} \tau_{t-4} + \varepsilon_t \quad (2)$$

$$i_t = \tilde{r}_t + \pi_t + 0{,}5(\pi_{t+k|t}^{N} - \pi_{t+k}^{*}) \quad (3)$$

where π_t is inflation, π_t^N is non-food inflation, π_t^* is the inflation target $\pi_{t+k|t}^N$ is the core- (non-food) inflation forecast for k periods ahead, y_t is the output gap, π_t^R is food inflation relative to overall inflation, x_t is the real exchange-rate variation defined as P_t^M / P_t, (P_t^M being the price of imports and P_t the CPI), i_t is the nominal interest rate, τ_t is the terms of trade, $\tilde{r}_t$ is the long-term real equilibrium rate of interest, and is the long term of the Phillips curve defined as $z_t = P_t - 0{,}7 \log U_t - 0{,}3 \log P_t^M$ where $U_t = W_t L_t / Y_t$ is the unit labor cost, W_t being the nominal wage, L_t employment, and Y_t output.

The Phillips-curve equation has three characteristics: it is raised by expectations, it is superneutral, and it is neutral. It is raised by expectations in that it takes into account inflation expectations in determining inflation. The property of superneutrality is important in a model for Colombia, because it allows the model to go from one inflation rate to another with the same long-term solution for real variables. And it is neutral in that the long-term price index is broken down into production costs: wages and import prices. This property allows the model to have the same long-term real-variables solution for different price levels. Although the model is superneutral and neutral in the long term, it is not neutral in the short term because monetary policy has real effects and needs to have them in order for the transmission channels of monetary policy to operate. The model therefore has classical features in the long term and Keynesian ones in the short term.

In the aggregate-demand equation or IS curve, the output gap is persistent to some extent and is determined by the real interest rate and the real exchange rate.

Equation (3) is the forecasting rule for determining the interest rate. This rule holds that the nominal interest rate is equal to the long-term real interest rate plus CPI inflation, plus a correction for imbalance between the core- (non-food) inflation forecast and the target. The interest-rate path derived from this rule is not a policy prescription, rather it is intended to simulate, on average, the behavior of a central bank that is following an inflation-objective strategy.

Where inflation is characterized by food-supply shocks, as in Colombia, the combination of overall and non-food inflation contained in forecast rule (3) reduces variability in the real interest rate and in other real variables such as the output gap.

IV. Inflation forecast

The inflation forecast, consisting of a central vision, a degree of uncertainty, and a risk balance, is illustrated in Figures 73, 74 and 75 of Chapter V.

A. Central vision

The central vision is the forecast obtained from the transmission-mechanism model on information produced during the quarter and summarized in the Inflation Report.

The model projects a continuing decline in core inflation, because output is below the potential level and despite the recent introduction of indexation in public-sector salaries. For the short term, especially the second and third quarters of 2001, the model projects a transitory rise in inflation resulting from the effect of the first-quarter's mild drought on food inflation. By the end of 2001 the projected food-inflation shock no longer has a significant effect on overall inflation, with the central forecast coming to 8.2%. The model also forecasts that by the end of 2002 overall inflation will have dropped down to 4.5%, because of both the disappearance of the transitory food-inflation shock, and the so-called cobweb-theory effect.

B. Degree of uncertainty

The degree of uncertainty gives an idea of the forecast's accuracy in a manner analogous to a confidence range, except that it is structured in several bands, each of them (if symmetrical) indicating a 10% probability. It is obtained through stochastic simulations using the transmission-mechanism model.

Stochastic simulation predicts, with a 90% probability, that by the end of 2001 core inflation will range between 5.7% and 10.6% and overall inflation between 5.8% and 11.9%.

C. Risk balance

The risk balance is the degree of asymmetry in the forecast's probability distribution around the central vision. The risk balance incorporates into forecasting by the central model information

from satellite models that analyze more fully the effects of a given shock or subjective assessments of the monetary authority on its perceptions of possible movements in future inflation. If the balance shows an upward asymmetry, the central vision is the probability-distribution mode and the mode is below the mean.

The present Report's inflation forecasting assumed no degree of asymmetry in the case of core inflation. But in the case of headline and food inflation it assumed an upwardly asymmetric probability distribution, because one of the satellite models produced higher food-inflation forecasts than the central model, and it was considered that a moderate drought might perhaps have much the same effect as a stronger drought on food inflation.

References:

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Javier gómez et al. (2001), "Transmission Mechanisms and Inflation Targeting: The March 2001 Inflation Forecast," Mimeo, *Banco de la República.*

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[1] No specific coefficients are reported here, because they change as the equations are updated, but a detailed description of each equation can be found in Gómez and Julio (2000), and an updating of the model in Gómez et al. (2001).

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