



# INFLATION REPORT

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BANCO DE LA REPÚBLICA  
CENTRAL BANK OF COLOMBIA  
BOGOTÁ. D.C., COLOMBIA  
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# INFLATION STRATEGY AND ITS OBJECTIVE IN COLOMBIA

## OBJECTIVES

Monetary policy in Colombia is based on inflation targeting, which is intended primarily to keep inflation low and to ensure stable long-term growth in output. Therefore, monetary policy objectives combine the goal of price stability with maximum sustainable growth in output and employment. In doing so, monetary policy complies with the constitution and contributes to the well being of the Colombian population.

## HORIZON AND IMPLEMENTATION

The Board of Directors of Banco de la República (BDBR) defines quantitative inflation targets for the current year and the next. BDBR policy initiatives are designed to meet each year's target and to provide for long-term inflation at around 3%. The annual variation in the consumer price index (CPI) is the inflation measurement used.

## THE DECISION-MAKING PROCESS

Monetary policy decisions are based on an analysis of the current state of the economy and its prospects for the future and on an assessment of the inflation forecast compared to the targets. If the assessment suggests, with enough certainty, that inflation will deviate from its target under current monetary-policy conditions, and that said deviation would not be due to temporary shocks, the BDBR modifies its policy stance. This is done

primarily by changing the intervention interest rate (charged by Banco de la República on short-term liquidity operations).

#### COMMUNICATION AND TRANSPARENCY

Decisions on monetary policy are made at meetings of the Board of Directors and announced immediately thereafter, in a press bulletin posted on the Bank's website ([www.banrep.gov.co](http://www.banrep.gov.co)). The inflation reports are published quarterly and lend transparency to the Board's decisions. They also contribute to a better understanding of monetary policy and add to its credibility. Specifically, they i) let the public know how the Board of Directors and the Technical Governor of the Bank view recent and anticipated changes in inflation and its short and medium-term determinants; ii) explain the implications of those determinants for monetary-policy management, within the scope of inflation targeting; iii) describe the context and analysis justifying monetary-policy decisions taken during the quarter; and iv) provide information that helps economic agents to form their own expectations about future developments in for inflation and growth in output.

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# ASSESSMENT OF INFLATION AND POLICY DECISIONS

## INFLATION SUMMARY

Annual consumer inflation began to decline again during the second quarter of 2007, as was forecast. By June, it was 6.0%, which is similar to the rate in March and 22 basis points (bp) below the high point registered in April. Annual inflation had increased steadily between October 2006 and April of this year, propelled largely by higher food prices and by major adjustments in fuel prices and fares for public transportation. However, as expected, some of these pressures began to subside in May, allowing for the reduction in inflation.

The various core inflation indicators, which usually filter temporary price shocks, also showed a break in trend as of May. They had climbed almost continuously since mid-2006, exceeding the target range set by the Board of Directors of Banco de la República (JDBR) for this year. However, annual non-food inflation was 4.4% in June, which marks a return to the target range.

The decline in inflation during recent months was due primarily to favorable developments in perishable food prices and to a more moderate, although less of a change in the price of various tradables. Prices for certain goods and regulated services also saw relatively low adjustments in the last two months.

The recent food price trends, which were anticipated by the BDBR in several bulletins and interventions, are the result the climate returning to normal after El Niño weather in late 2006 and early 2007. At the time, El Niño caused sharp but temporary hikes in the price of most perishable foods. This partly explains the strong surge in inflation at March. The decline in tradable inflation between March and June is associated with peso appreciation as of mid-2006. However, given the extent of appreciation (14.8% year to date), the reaction of tradable inflation to the exchange rate still is limited.

In general, the outcome for inflation up to June coincides with the forecast published in the last edition of this quarterly report. Even so, total inflation at June remained high: 1.5 bp above the ceiling

of the target range for 2007. At the same time, annual inflation in non-tradables, excluding food and regulated prices, was 5.1%, which is more than in March (4.9%) and December (4.8%). This indicates that most of the pressure on prices identified in previous reports had an effect and could continue, to some extent, throughout the remainder of the year. The following facts support this statement:

1. Despite the decline in food inflation, processed food prices continued to rise, mainly because of higher meat prices. At this point in time, three factors could continue to exert pressure on food inflation; namely, strong domestic demand, an increase in food exports to Venezuela, and high external prices for input used to produce bio-fuels. Consequently, it is more likely that the shock in food prices witnessed up to March could extend during the second half of the year.
2. Although inflation expectations for the end of the year declined in recent months, on par with the break in price trends, they are still high (5% for the end of the year) and exceed the target for this year and the target range announced for 2008 (between 3% and 4%).
3. Inflation in the producer price index has dropped sharply in recent months, mainly due to accumulated peso appreciation. Nonetheless, that decline is not likely to be reflected quickly or to any great degree in the consumer price index (CPI), partly because of the significant differences in methodology and coverage that exist between the PPI and the CPI. These differences are due largely to the fact that the producer price index (PPI) does not include services; the CPI does, which gives the tradable component in the first of these baskets far more weight. Moreover, there are indications of a sizeable increase in mark ups during the year to date. This development, which could be related to increased domestic and Venezuelan demand, would prevent the reduction in producer inflation from translating entirely into less consumer inflation, at least while demand continues to grow at the present rate.
4. Economic growth is above its historic average, surpassing the market's expectations and those of Banco de la República. In the first quarter, growth was 8%, led once again by domestic demand (11%), including private consumption. The figures available at June suggest this trend in the economy continued throughout the second quarter, with no clear signs of moderation. As a result, the growth forecast for 2007 had to be increased to a rate similar to the one observed last year.
5. That forecast is justified, since most of the factors behind the recent growth are still in effect. Such is the case with real interest rates, which remain low in historic terms; domestic demand, which continues to be extremely dynamic; highly favorable terms of trade; and credit, which continued to grow at nominal rates on the order of 30%. Prices for assets such as housing and stocks have increased as well, and can reinforce the growth in spending.



6. The past month saw a build-up in the pass-through of policy interest rates to market lending and deposit rates. Even so, the impact on real lending and deposit rates during the period from April 2006 to June of this year remains limited, particularly with respect to ordinary and consumer loans. There has been more of an increase in real rates for preferred and treasury loans, which are now slightly above their historic averages. The rate on term deposits (DTF in Spanish) is still below the interbank rate (TIB in Spanish), showing that pass through is not complete.
7. The different loan segments continued to grow substantially, although certain types, such as ordinary and consumer loans, witnessed a bit of a slowdown. However, these two types of credit are still growing at a high rate: 44.2% for consumer loans and 25.1% for commercial credit. The same is true of the annualized monthly growth in credit (excluding the seasonal component and the statistical noise in the series), which also shows a great deal of momentum: 38% for consumer loans and 18% for ordinary loans. This calculation, which is the most apt in showing a possible break in trend, suggests that the increase in certain types of credit would be declining. However, this would be happening slowly and from very high levels. Moreover, it would be offset in part by the mortgage portfolio, which tended to accelerate during the second quarter.
8. Most indicators suggest the growth in aggregate demand during the first half of the year surpassed the economy's productive capacity. In April and May, all the indicators of installed capacity use were at historically high levels, despite considerable investment in machinery and equipment during the last two years. At any rate, it is important to point out that the growing trend in those indicators during recent quarters was interrupted in the last few months and some of them even declined slightly.
9. Given the higher forecasts for growth, aggregate demand might continue to exceed the economy's productive capacity during the remainder of the year, and the gap between these two variables could become a bit wider.
10. Available figures on wages and productivity suggest that, up to now, the movement in these variables remains aligned. However, the increase in employment has accelerated during the last few months in sectors such as industry, commerce and construction, particularly in the country's major urban areas.
11. Finally, the exchange rate continues to be shrouded by a great deal of uncertainty, perhaps even more than was indicated in the March report. This is the result of increased expectations about international interest rates associated with the recent rise in risk perception. Even so, developments in the balance of payments show terms of trade are more favorable than those envisaged earlier. They also signal good growth for trading partners and significant capital flows, particularly for direct foreign investment. As a whole, these factors point to a relatively stable exchange rate during the rest of the year, similar to what was forecast in the March report. Accordingly, this variable is not expected to exert strong inflationary pressure.

## POLICY DECISIONS

The BDBR adopted measures on a variety of fronts during the first four months of the year.

- Intervention interest rates were increased by 75 bp, which placed them at 8.5% in April.
- Auctions of interest-bearing non-reserve deposits at 7 and 14 days were activated as of April 2. The BDBR then initiated auctions of 30, 60 and 90 day deposits. It also authorized unlimited deposit-taking at seven days in the form of interest-bearing deposits that do not constitute reserves held by Banco de la República.
- At a meeting on May 6, 2007, it imposed a non-remunerative marginal reserve ratio, with different rates for current and savings accounts, certificates of deposit maturing in less than 18 months, and similar deposits.
- The private external debt deposit stipulated in External Resolution 08/ 2000 was reinstated. It comes to 40% of the disbursed amount, liquidated at the representative market rate of exchange (TRM in Spanish) on the date the loan is furnished.
- Finally, the leveraged position of derivative operations by market intermediaries was limited to 500% of their technical capital.

To supplement the reserve measures adopted in May, the BDBR unified the ratios on June 15 for current and savings accounts. This was done in recognition of the fact that, at present, these financial assets have similar characteristics in terms of liquidity. The ordinary reserve requirement for those deposits was unified at 8.3% and the marginal requirement, at 27%. The base date for calculating the marginal requirement (May 7, 2007) was not changed.

Between January and April, the BDBR continued its discretionary exchange market intervention to reduce peso appreciation. This type of intervention was suspended in May.

As explained at the time, all decisions made in connection with the interest rates hikes are intended to reinforce their impact. The interest-bearing non-reserve deposits, in particular, increase the banks capacity to offset the monetary effects of exchange market intervention. The measures dealing with reserve requirements are designed to lessen the growth in credit and aggregate demand, directly supplementing the job of the rates. The external borrowing measures are intended to limit the entry of short-term capital.

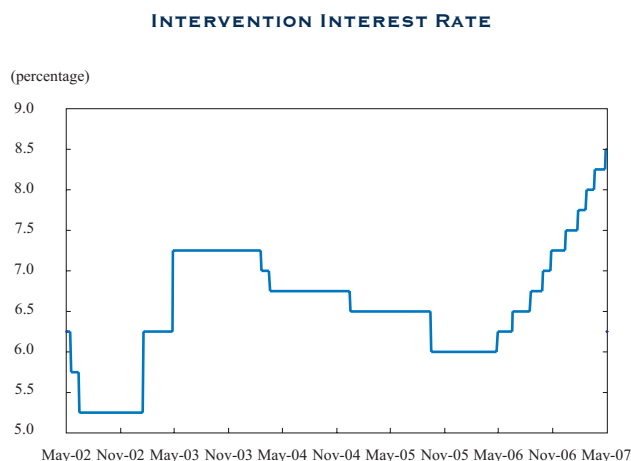
These measures began to show some results as of May. Net short-term capital inflow, which had increased considerably during the first four months of the year, dropped off sharply with adoption of the measures on foreign borrowing. In addition, pass-through of the Bank's repo rate to market rates

gained speed in the last two month, possibly due, in part, to the measures on marginal reserve requirements.

Considering these facts and the persistence of inflation pressure on various fronts, the BDBR felt the risks weighing on long-term price stability during the second quarter and up to July were still important and warranted action to reinforce the measures adopted earlier. Specifically, the BDBR took the following factors into account:

1. Consumer inflation was above the established targets.
2. Non-tradable inflation had continued to rise.
3. The growth forecasts had increased substantially in recent months.
4. Tradable inflation had yet to fully reflect appreciation in the exchange rate.
5. Inflation is quite likely to end the year above the target range, as indicated in the forecasts developed by the Bank's technical team, which are presented in this report.

Consequently, the BDBR continued to lower its monetary stimulus in recent months by raising the Bank's intervention interest rates, which were increased by 25 basis points on three occasions (May, June and July), placing the repo auction rate at 9.25% by the end of July (Graph).



Source: Banco de la República.

The BDBR has not exercised discretionary intervention in the exchange market since May, nor has it made permanent acquisitions or sales of TES. However, during this period, Banco de la República did intervene to control volatility on various occasions, through put and call operations, as was customary in the past.

The BDBR believes the normalization of monetary conditions since the second quarter of 2006 has begun to affect the growth in credit and monetary aggregates. Similarly, the increase in repo rates is

expected to have more of an impact on market rates in the months ahead, which also could contribute to the shift in the make-up of financial institution assets towards TES and other portfolio investments. All of this should mean that economic activity, and particularly domestic demand, will grow at a more sustainable rate that is consistent with the long-term target for inflation (3%).

Board of Directors  
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# INFLATION REPORT

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# I. RECENT DEVELOPMENTS IN INFLATION

**As expected, consumer inflation recommenced a downward trend** in the second quarter. This was true for total and core inflation. Even so, the level is high.

**The perishable-food supply shock** at the start of the year began to reverse, accounting for much of the downturn in inflation. However, the strength of domestic and external demand continues to bring pressure to bear on prices.

**GDP growth was up (8%) at the start of the year**, more than expected. Domestic demand continues to lead the increase.

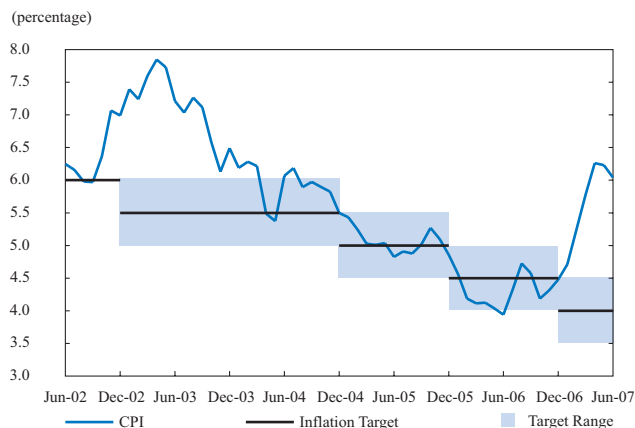
**Available figures** suggest that use of productive capacity remained extremely high during the second quarter. This would have generated demand-pulled inflation pressure. One indication, in this respect, is the rise in non-tradable inflation, excluding food and regulated prices.

**Inflation expectations for the end of 2007** are less than in recent months, but still exceed the targets.

## A. RECENT DEVELOPMENTS IN INFLATION

Total consumer inflation began to decline again during the second quarter of 2007, ending June at 6.04%. This is 22 basis points (bp) below the latest peak, which was in April. Even so, the figure for June is still 154 bp above the target range set for 2007 by the Board of Directors of Banco de la República (JDBR) (Graph 1). The recent inflation slowdown was forecast in earlier reports and, as noted, was due mainly to less food inflation. The

ANNUAL CONSUMER INFLATION



Source: DANE, Banco de la República's calculations.

*The average of the core inflation indicators declined during the second quarter, but was still above the target range.*

reduction in core inflation, including the non-food consumer price index (CPI), also was a factor.

A number of supply and demand factors that explain the rebound in inflation during early 2007 were identified in the last report. The main ones are i) El Niño weather during the first quarter of 2007; ii) higher commodity prices as of mid-2006, bolstered by the sharp increase in world demand and the boom in bio-fuels; iii) strong growth in domestic demand; and iv) the hefty increase in exports to Venezuela (particularly foods).

Some of these factors were less predominant between May and June, allowing for a reduction in consumer inflation. The gradual return to normal weather is responsible for the most important contribution, permitting the supply of perishable foods to spring back. This, in turn, has lowered prices for these foods. Other factors, such as exchange rate appreciation and the government's restriction on exports of cattle on the hoof to Venezuela seem to have helped as well. In the case of appreciation, its impact would have been felt in the form of lower increases in certain public utility rates, such as those for residential natural gas and electricity, and more moderate gasoline price hikes, as well as stabilization in prices for several imported foods, offsetting the external price hikes.

Contrary to what happened last quarter, when the figure for inflation was well above the forecasts and took the markets by surprise, the outcome on this occasion was closer to expectations. In the case of Banco de la República's forecasts, total inflation at June was near the prediction in the March report. The forecast errors were minor in the case of non-food CPI and its components (Table 1).

During the year to June, food continued to account for most of the build-up in total inflation (82%); the non-food CPI accounted for less than 20%. Most of the upward pressure within this second group came from regulated goods and services and the non-tradable CPI. The contribution from tradables was practically nil (0.3%) (Table 2).

**1. Core Inflation**

The core inflation indicators monitored by Banco de la República averaged 5.1% in June, the same as in March. This average stayed below total inflation



## FORECASTS AT JUNE 2007 ACCORDING TO THE INFLATION REPORT FOR:

|                        | Sep-06     | Dec-06     | Mar-07     | Observed at Jun-07 |
|------------------------|------------|------------|------------|--------------------|
| <b>Total inflation</b> | <b>4.7</b> | <b>4.7</b> | <b>6.0</b> | <b>6.0</b>         |
| Food                   | 5.6        | 6.2        | 10.0       | 9.7                |
| Without food           | 4.4        | 4.1        | 4.3        | 4.4                |
| Tradables              | 2.2        | 1.4        | 1.5        | 1.8                |
| Non-tradables          | 4.6        | 4.9        | 5.2        | 5.1                |
| Regulated prices       | 7.6        | 7.2        | 7.8        | 7.4                |

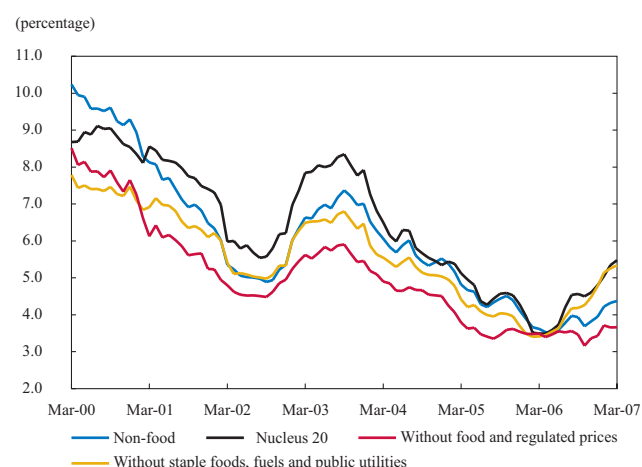
Source: Banco de la República.

## INFLATION BREAKDOWN, BY UPWARD PRESSURE

| Description                 | Weight        | Annual Growth |             |             | Share of Build-up<br>Year to Date |               |
|-----------------------------|---------------|---------------|-------------|-------------|-----------------------------------|---------------|
|                             |               | Dec-06        | Mar-07      | Jun-07      | At March                          | At June       |
| <b>Total</b>                | <b>100.00</b> | <b>4.48</b>   | <b>5.78</b> | <b>6.03</b> | <b>100.00</b>                     | <b>100.00</b> |
| <b>Non-food</b>             | <b>70.49</b>  | <b>3.95</b>   | <b>4.38</b> | <b>4.38</b> | <b>22.64</b>                      | <b>18.15</b>  |
| Tradables                   | 24.67         | 1.71          | 1.97        | 1.76        | 4.37                              | 0.31          |
| Non-tradables               | 36.77         | 4.75          | 4.93        | 5.12        | 4.54                              | 7.64          |
| Regulated prices            | 9.04          | 6.12          | 7.48        | 7.40        | 13.72                             | 10.20         |
| <b>Food</b>                 | <b>29.51</b>  | <b>5.68</b>   | <b>8.90</b> | <b>9.69</b> | <b>77.36</b>                      | <b>81.85</b>  |
| El Niño weather             | 7.15          | 2.79          | 9.45        | 7.06        | 44.25                             | 24.89         |
| International prices        | 5.35          | 9.62          | 11.04       | 9.22        | 6.47                              | (0.63)        |
| Domestic demand             | 9.52          | 5.83          | 7.74        | 8.56        | 13.71                             | 15.99         |
| External demand (Venezuela) | 7.48          | 5.81          | 8.08        | 14.57       | 12.94                             | 41.60         |

Source: DANE, Banco de la República's calculations.

## ANNUAL CORE INFLATION INDICATORS



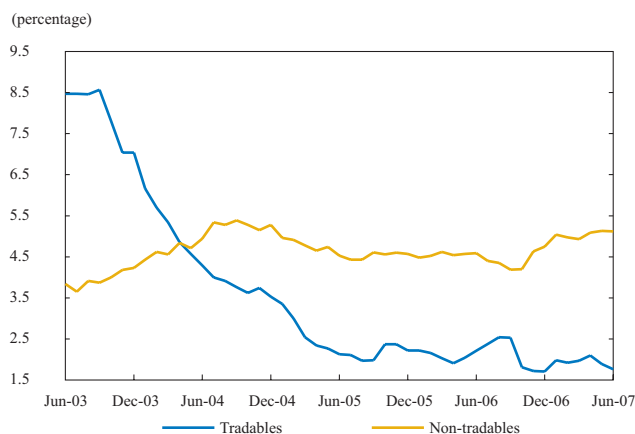
Source: DANE, Banco de la República's calculations.

during the second quarter, but was above the ceiling for target inflation in 2007.

As with total inflation, the upward trend in core inflation that began in April 2006, when the indicators averaged an all-time low of 3.5%, ended in May and June. All the core inflation indicators experienced a similar break in trend (Graph 2). Non-food inflation was 4.4% in June, which is the same as in March, but less than the figure for April 2007 (4.5%) and within the target range for the year.

**GRAPH 3****ANNUAL INFLATION IN REGULATED PRICES**

Source: DANE, Banco de la República's calculations.

**GRAPH 4****ANNUAL TRADABLE AND NON-TRADABLE INFLATION, EXCLUDING FOOD AND REGULATED PRICES**

Source: DANE, Banco de la República's calculations.

The reduction in non-food and other core inflation indicators, particularly during May and June, was possible thanks to the favorable performance of regulated prices and tradables without food and regulated prices (Graphs 3 and 4). The downturn in regulated prices was concentrated in several public utilities, such as natural gas and electricity for residential use, which could have benefited from peso appreciation and the recent decline in producer inflation, as will be explained later.

As to tradables without food and regulated prices, peso appreciation also would have influenced the relatively low price hikes witnessed during the last two months, most of which include price reductions for goods such as home electrical appliances and automobiles. Nevertheless, given the extent of appreciation (14.8% year to date), there has been no significant reaction from tradable inflation. This recent development reinforces the findings of a number of studies on Colombia, which show that pass through of the exchange rate to consumer prices is quite low (between 4% and 15%), and takes nearly one year to complete.<sup>1</sup> Given this minimum response from tradable goods, other phenomena that reduce the impact of the exchange rate are probably in play, such as the force of domestic and external demand.

## 2. Food Inflation

Annual food inflation at the end of the second quarter (9.7%) was higher than in March (8.,9%). However, there were slight reductions in food inflation during May and June, interrupting the sharp upward trend observed since December 2006. The break in that trend was possible because price hikes for a number of

<sup>1</sup> See Edgar Caicedo, Box 1: "The Impact of the Exchange Rate on Prices," *Inflation Report*, June 2006, Banco de la República, pp. 32-36.

perishables were small and supply has begun to react favorably, now that rains have returned to normal after El Niño (Graph 5).

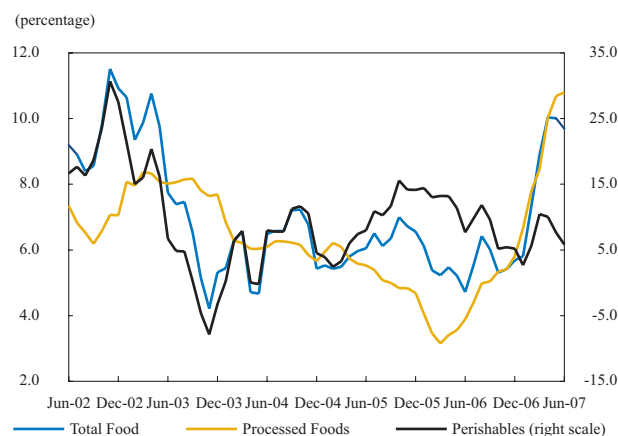
Accordingly, the temporary price shock during the first quarter of 2007 began to ease as of May, allowing for the drop in food inflation. Even so, the reduction was not substantial and was concentrated only in perishables. Processed foods were not affected, and inflation in their prices continued to rise during May and June, although not as quickly as at the start of the year. Much of the second-quarter increase in prices for perishables is explained by the surge in meat prices (Graph 6). It is important to point out that processed foods account for 23.9% of the basket of consumer goods and services in Colombia; perishable foods account for 5.7%.

This being the case, the food-price inflation pressures that were mentioned in the March edition of this report persisted during the second quarter. In particular, domestic and external demand continued to affect processed food prices, and high international prices kept peso appreciation from having more of an impact on imported foods. Given the forecasts presented later in this report for domestic/ external demand and external prices, these pressures are expected to be prolonged during the coming quarters, preventing a faster decline in food inflation.

As mentioned in the March edition of this report, high food inflation is not a phenomenon exclusive to Colombia. Many developed and emerging economies now face the same problem. Higher food prices in those countries also included a temporary component associated with the impact of El Niño. However, in most of them, the rise in food prices seems to be more permanent, due to growing pressure from the increase in world demand for bio-fuels (bio-diesel and ethanol). Thanks to this surge, international prices for palm and sunflower seed hit record highs during the second quarter, while others, such as corn, soybeans and sugar prices, remained well above their historic averages.

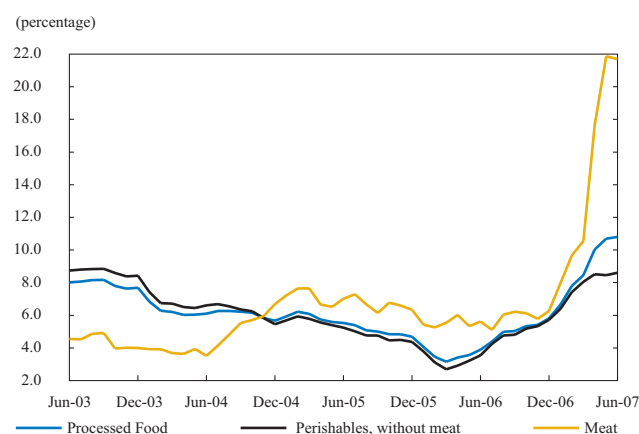
A look at the increase in food inflation so far this year, by causes, shows that higher meat prices associated with more demand in Colombia and Venezuela, is

ANNUAL FOOD INFLATION



Source: DANE, Banco de la República's calculations.

ANNUAL PROCESSED FOOD INFLATION



Source: DANE, Banco de la República's calculations.

*A number of the inflationary pressures identified in March continued during the second quarter....*

the most important factor, followed by the effect of El Niño weather. International food prices exerted no pressure in the past six months, probably because the rise in external prices was offset by peso appreciation.

## **B. FACTORS THAT DETERMINE INFLATION**

### **1. Shocks: El Niño and Regulated Prices**

There is every indication that the upward pressure on prices caused by El Niño began to ease slowly during the second quarter, and probably will continue to do so during the third quarter, but with more force.

The most severe impact of El Niño weather was on perishable foods, specifically between February and April. It was estimated initially that adverse climatic conditions (less rain) would continue throughout the second quarter, which would prolong their effect until June. However, El Niño weather began to disappear in April, alleviating prices as of May (slightly earlier than expected). By June, prices for perishables such as fruits and vegetables began to decline and those for other products such as tubers and potatoes tended to stabilize.

As in the past, the effects of El Niño weather are temporary and should disappear entirely during the next three months (or perhaps a bit more). This began to be obvious in the last few months. While El Niño was the primary reasons for the rise in annual inflation during the first quarter, in the second, it contributed to its decline. Inflation, so far this year, reflects that situation. El Niño accounted for only 24% of the build-up in accumulated inflation at June, as opposed to 44% at March. This percentage is likely to be much lower in the third quarter (Table 2). At the same time, more permanent pressure on foods, such as that originating with domestic and external demand, has gained ground and will continue to do so in the months ahead.

Regulated prices for goods and services (electricity, water and natural gas for residential use, fuel and public transportation) remain subject to pressure derived from high oil prices on the international market and the impact they have had on the domestic price of gasoline and diesel. Consequently, for several quarters, inflation in this sub-group has stayed well above average inflation and the inflation targets. The price hikes so far this year in the case of public transportation have been particularly high. At any rate, increases in gasoline and natural gas prices in recent months have been somewhat more moderate, apparently due to the effect of exchange rate appreciation, which prevented pressure on this front from building.

*....however, the upward effects of El Niño weather began to subside.*

## 2. Aggregate Demand

The growth phase during the second half of 2006 continued throughout the first quarter of 2007, led by the force of public and private investment, coupled with household consumption. According to the latest figures from the National Bureau of Statistics (DANE), gross domestic product (PIB) was up by 8% during that period (Graph 7), adding to three quarters of growth above 7%. DANE revised the 2006 fourth-quarter growth figure upward from 8% (reported at 8.4% three months ago).

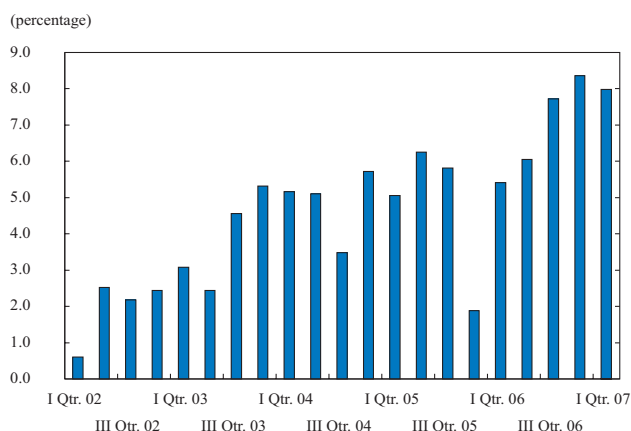
Domestic demand (11.0%) continued to fuel economic growth during the first quarter of 2007, making for a total of 13 quarters with growth above the increase in GDP (Graph 8). Household consumption, which was up by 7.3%, and total investment, with an increase of 32%, are the components that contributed the most to the momentum in domestic demand. As a result of government consumption, there were no additional pressures, since this aggregate declined by 0.6%, pursuant to the deficit targets set by the central government (Table 3).

Most of the contribution to GDP growth in the first quarter of 2007 came from total investment (7.1 percentage points [pp]). Investment in transport equipment was the most dynamic (48.3%), followed by gross fixed capital formation (GFCF) in civil works (39.6%). GFCF in machinery and equipment saw substantial growth as well (26.9%), as did home construction (20%). The performance of investment in the agriculture and livestock sector was the least favorable (1.7%), given the way supply in the sector behaved during the period. On the whole, investment as a percentage of GDP was 25.9%, a historically high rate surpassed only during certain quarters in 1994 and 1995.

The positive trend in investment in machinery and equipment, and in transport equipment was reflected in the force of capital goods imports, which rose by 23.4% in dollars during the first quarter of 2007. However, this growth is less than what was reported last year. Total imports had increased 21.8%, in real terms, by March 2007.

GRAPH 7

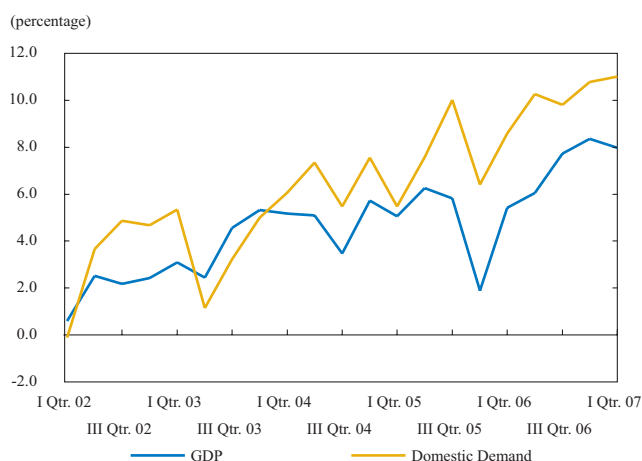
REAL ANNUAL GDP GROWTH



Source: DANE, Banco de la República's calculations.

GRAPH 8

REAL ANNUAL GROWTH IN GDP AND DOMESTIC DEMAND



Source: DANE, Banco de la República's calculations.

TABLE 3

**REAL ANNUAL GDP GROWTH BY TYPE OF EXPENDITURE  
AND CONTRIBUTION TO GROWTH  
(PERCENTAGE)**

|   | IV Qtr. 06  | I Qtr. 07   | Contribution |
|---|-------------|-------------|--------------|
| <b>End consumption</b>                          | <b>6.8</b>  | <b>5.4</b>  | <b>4.5</b>   |
| Households                                      | 7.9         | 7.3         | 4.6          |
| Government                                      | 3.1         | (0.6)       | (0.1)        |
| <b>Gross capital formation</b>                  | <b>23.3</b> | <b>31.8</b> | <b>7.1</b>   |
| Gross fixed capital formation (GFCF)            | 16.7        | 28.6        | 5.8          |
| GFCF without civil works                        | 18.8        | 25.7        | 4.1          |
| Civil works                                     | 8.8         | 39.6        | 1.7          |
| Change in inventory                             | 105.2       | 64.3        | 1.3          |
| <b>Domestic demand</b>                          | <b>10.4</b> | <b>11.0</b> | <b>11.3</b>  |
| <b>Domestic demand without Inventory change</b> | <b>8.8</b>  | <b>10.0</b> | <b>10.5</b>  |
| <b>Total exports</b>                            | <b>12.4</b> | <b>9.4</b>  | <b>1.9</b>   |
| <b>Total imports</b>                            | <b>19.7</b> | <b>21.8</b> | <b>5.5</b>   |
| <b>GDP</b>                                      | <b>8.4</b>  | <b>8.0</b>  | <b>8.0</b>   |

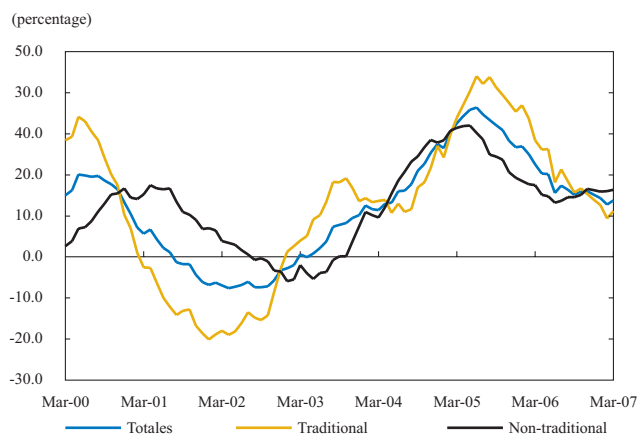
Source: DANE, Banco de la República's calculations.

Household consumption was the second item that contributed substantially to GDP (4.6 pp). Its components were extremely solid, for the most part. However, consumer durables, with an annual increase of 17.6%, and semi-durables, with 16%, were a high point. Non-durable goods consumption, including items such as food, beverages, public utilities, pharmaceutical products and household maintenance, among others, was up by 6.4%, which is more than the increase in 2006. The growth in services (primarily home rentals, social, community and personal services) and commerce was above 4%.

Total exports, in real pesos, were up by 9.4% in the first quarter of 2007, which is less than the fourth-quarter rate in 2006. With figures in dollars, the increase came to 13.8%, with non-traditional exports being more important (19.2%) than traditional exports (11.2%) (Graph 9). Coal and ferronickel led traditional exports, having increased at accumulated 12-month annual growth rates of 15.4% and 51.5%, respectively. The good coffee crop and high international prices for coffee allowed coffee exports to recover significantly (8.9% 12-month accumulated figure). Oil did not perform as well and registered moderate growth (5%).

GRAPH 9

**TOTAL TRADITIONAL AND NON-TRADITIONAL  
EXPORTS IN DOLLARS  
(ANNUAL INCREASES  
LAST 12 MONTHS)**

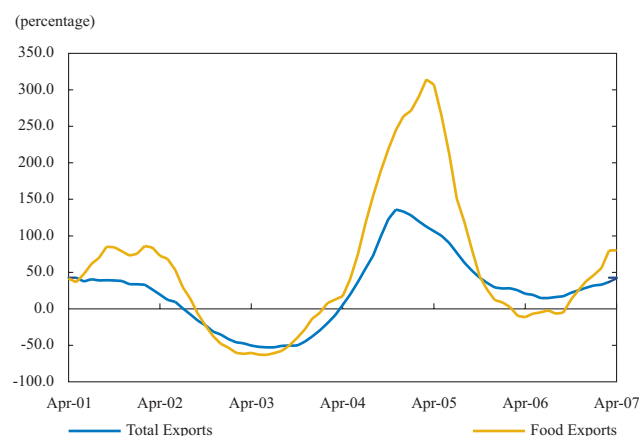


Source: DANE.

By destination, exports to Venezuela, in dollars, remained especially strong in terms of most products, but particularly food (Graph 10). After having declined slowly during four quarters, exports to Ecuador bounced back in recent months. However, by April, their growth rate was slow, possibly because of a weaker Ecuadorian economy. The United States was, perhaps, the country's only major trading partner that performed poorly. In the last few months, the value of exports to that country has declined, particularly in sectors such as textiles, clothing, leather and bananas. The United States market is where Colombian exports probably face the most competition, and peso appreciation could be undermining sales to that country. At any rate, the poor outcome for exports to the United States seems to be offset by sales to the other destinations (excluding Venezuela and Ecuador), which have gained strength for several months and, in April, were up by 27.5%, in dollars.

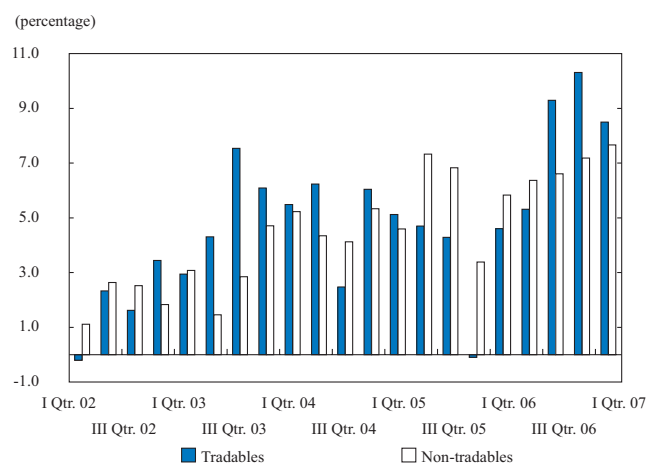
On the supply side, the tradable sectors<sup>2</sup> (8.5%) were the most dynamic, although the non-tradable sectors<sup>3</sup> also performed well (7.65%) (Graph 11). Growth in the tradable sectors remains high, but is slightly less than during the last two quarters. The strong demand in Venezuela continues to benefit the tradable sectors, due to high international prices for certain exports and the strong momentum in construction, which requires resources from the tradable sectors (glass and cement, among others). The possible negative impact of appreciation has yet to be reflected in global or sector production figures, although it might have deviated some sales to Venezuela, to the detriment of those to other destinations.

**EXPORTS TO VENEZUELA, IN DOLLARS (ANNUAL GROWTH IN THE LAST 12 MONTHS)**



Source: DANE, Banco de la República's calculations.

**ANNUAL TRADABLE AND NON-TRADABLE GDP GROWTH**



Source: DANE, Banco de la República's calculations.

<sup>2</sup> The tradable sectors include agriculture and livestock; forestry, hunting and fishing; mining and quarries; industrial manufacturing; water, air, supplementary and auxiliary transport services; and company services, except financial and real estate.

<sup>3</sup> The non-tradable sectors include electricity, urban natural gas and water; construction; commerce, repairs, restaurants and hotels; land transportation services; postal services and telecommunications; financial brokerage and related services; real estate and home rental services; social, community and personal services.

*The productive capacity utilization indicators remain historically high.*

Although growth in the non-tradable sectors was less than in tradable GDP, it was significant and picked up considerably during the first quarter of the year. This was due to the sharp increase in construction GDP (both civil works and buildings), which offset the reduction in government services.

At a more detailed level, industry was the sector that contributed the most to annual growth, with 2.2 pp; construction accounted for 1.6 pp (Table 4). The role of agriculture and social, communal and personal services was minor. The contribution from agriculture is explained, in part, by the effect of El Niño, which had a serious impact on milk and vegetable production. There also was a sharp drop in illicit crops (-9.3%). The limited growth in social, communal and personal services was due primarily to the decline in government services (-0.7%).

### 3. Surplus Productive Capacity

The indicators available for the first half of 2007 suggest that surplus productive capacity continues to decline on par with the high rate of economic growth. Despite some minor declines during the second quarter, installed capacity utilization (ICU) for industry, measured by Fedesarrollo (Graph), and ICU

TABLE 4

REAL ANNUAL SECTOR GDP GROWTH  
(PERCENTAGE)

|   | IV Qtr. 06 | I Qtr. 07  | Contribution |
|---|------------|------------|--------------|
| Agriculture, forestry, hunting and fishing                              | 3.3        | 1.7        | 0.2          |
| Mining and quarries   | 1.3        | (0.9)      | (0.0)        |
| Electricity, gas and water  | 4.9        | 3.9        | 0.1          |
| Manufacturing industry  | 16.6       | 14.6       | 2.2          |
| Construction  | 10.0       | 28.3       | 1.6          |
| Buildings   | 10.8       | 20.1       | 0.7          |
| Civil works   | 8.9        | 39.6       | 0.9          |
| Commerce, repairs, restaurants & hotels                                 | 13.8       | 11.2       | 1.3          |
| Transport, storage & communication                                      | 12.1       | 9.8        | 0.8          |
| Financial, insurance, real estate and<br>company-service establishments | 3.8        | 4.9        | 0.8          |
| Social, communal and personal services                                  | 2.9        | 0.2        | 0.0          |
| Financial brokerage, measured indirectly                                | 7.9        | 8.0        | 0.3          |
| Aggregate sub-total   | 7.7        | 7.3        | 6.7          |
| <b>GDP</b>  | <b>8.4</b> | <b>8.0</b> | <b>8.0</b>   |
| Tradables <sup>a/</sup>   | 10.3       | 8.5        | 3.2          |
| Non-tradables   | 7.2        | 7.7        | 4.8          |

a/ It is assumed the tradable sectors are agriculture, mining and manufacturing; air, water, complementary and auxiliary transport services; and certain private services for companies.  
Source: DANE, Banco de la República's calculations.



measured by the National Association of Industrialists (ANDI), which are two key indicators, remained at historically high levels. In the past, these coincided with positive and prominent output gaps and with demand-pulled inflation pressure. Other indicators, such as the one that measures productive capacity available to satisfy increased demand, also pointed in that direction.

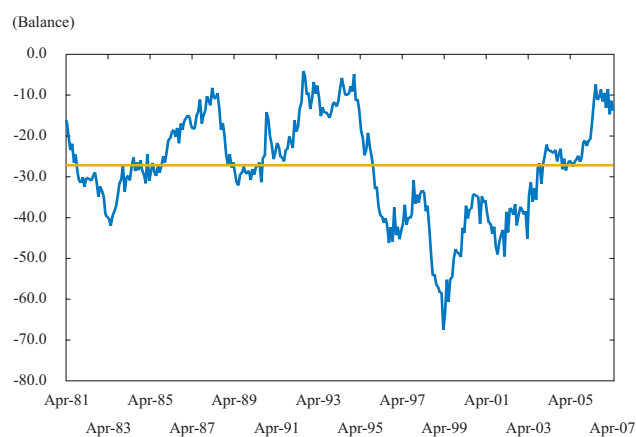
Given the first-quarter growth figures, and considering the data on investment, employment and intensity of factor utilization, the various methods the Bank uses to estimate the output gap show it could be between +1,3% and +3,9% during 2007, on average. It is most likely +2.6%. This is provided that growth during 2007 is close to what it was last year (Graph 13). Accordingly, if the current rate continues, these methods suggest the output gap would keep expanding this year. They also indicate the output gap in 2006 would have been 1.36%, which is slightly more than the estimate in the March report (+0,6%).

Based on available information, it is possible to infer that factor use is on the rise and, if these trends continue, the demand-pulled inflation pressures that were identified in the last report could continue during the remainder of 2007. This is consistent with the surge in the various core inflation measurements as of May 2006, and in non-tradable inflation without food and regulated prices, since November 2006.

The Bank's methods take into account the sizeable investment effort in Colombia during the last two years. The exercise used to separate growth according to the various productive factors shows that, despite more investment, the intensity of capital use has increased and would tend to expand even more during 2007. The same method shows that, even though the problem is less critical with the work factor, the rise in employment anticipated for 2007 should reduce the gap in that market by raising work factor intensity.

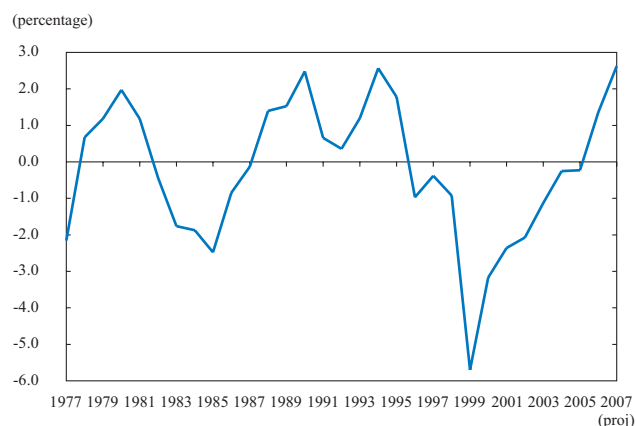
The foregoing estimates consider the fact that growth in total factor productivity has increased at a rate that exceeds its average growth since 1980. However, as this report shows, the productivity gains have not been enough to contain the

INSTALLED CAPACITY COMPARED TO EXPECTED DEMAND



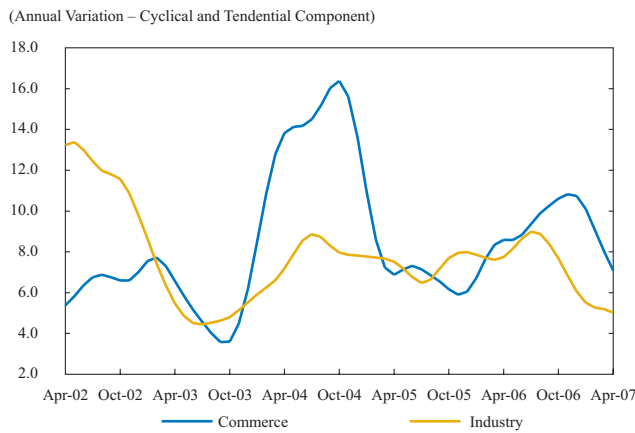
Note: The series is seasonally adjusted.  
Source: Fedesarrollo.

THE OUTPUT GAP



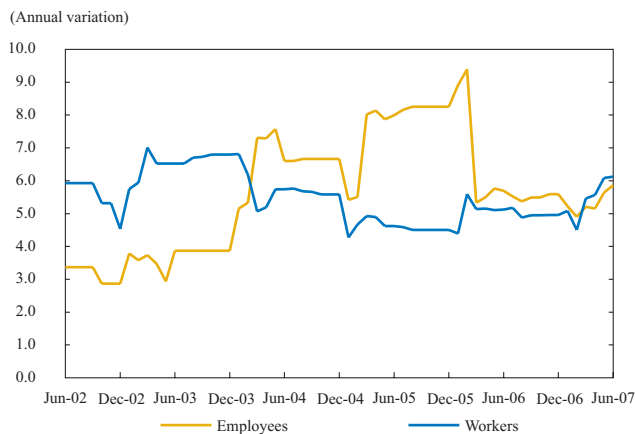
(proj) Projected.  
Source: Banco de la República.

**A. NOMINAL RETAIL AND INDUSTRIAL WAGE INDEX**



Fuente: DANE-MMCP-MMM,

**B. HEAVY CONSTRUCTION WAGE INDEX**



Note: Workers: foremen, laborer, craftsman and factory hand.  
 Employees: chief engineer, assistant engineer, clerk, accountant and watchman  
 Source: ICCP-DANE.

increase in core and non-tradable inflation so far this year.

**4. Wage Costs and the Labor Market**

The available indicators show that, so far this year, wage cost variations for companies have been slightly less than those observed throughout 2006. The wage adjustments in industry and commerce were more moderate during the first months of the year. By April, they came to 5.0% and 7.1%, respectively. According to available figures for the construction sector at June, wage adjustments for workers and employees were around 6.0% (Graph 14).

Employment data taken from the Comprehensive Household Survey (GEIH in Spanish) nationwide do not suggest a tight job market at this point in time. However, other sector indicators show an important recovery in urban employment. For example, according to the April edition of the Monthly Manufacturing Sample (MMS), industry hired 4.5% more workers. The Retail Trade Sample (RTS) points to an increase of 5.9% in the total number of employees in that sector. This marks nearly two years in a row that employment in both these sectors has increased at this pace. Data from the Social Protection Ministry show that membership in family subsidy entities was up by 1.8% during

the first quarter of the year, compared to the number of workers registered in December 2006. The same occurred with the number of active affiliates in the pension system.

In all, the data on wages and employment do not suggest the presence of wage-cost pressures up to June. This is explained, in part, by the fact that the job market remained loose. However, it is likely to tighten towards the mid-term, if the increase in employment during the first part of the year continues, along with added use of overtime in industrial manufacturing (annual 2.9% increase at April 2007) and considering projected GDP growth, especially for labor-intensive sectors such as construction and commerce.

For this reason, the possibility that more demand for labor might create labor-cost inflation pressure in the months ahead cannot be ruled out. This is particularly likely if the labor supply declines in relative terms, as happened recently, judging from the dips in the global employment rate (GER).

Wage cost pressure continues, but is restricted partly by labor productivity gains in sectors such as industry and commerce. The various productivity measurements continue to report gains, even after the adjustment made for the cyclical component of the series. Another factor that could have curbed higher wage hikes and has prevented the job market from tightening even faster is the decline in the relative price of capital, thanks to peso appreciation, tax incentives for investment, and the fact that manufactured goods worldwide have become less expensive. This phenomenon might have bolstered the substitution of capital for labor, curbing growth in the demand for labor.

## 5. Other Costs

Judging by the producer price index (PPI) and other indicators, raw material costs do not appear to have exerted much pressure on prices so far this year. Annual inflation measured by total PPI has declined since the start of 2007 and was only 4.1% at June. The role of accumulated peso appreciation in this trend has been important in terms of lower prices for imported raw materials. The annual variation in imported PPI was -18.02% at June. A cheaper dollar, compared to the peso, would have offset the increase in external prices for a number of raw materials. Cereals, oils and oilseeds are some examples. In the case of raw materials and other costs of domestic origin, the pace of price changes remained stable (at around 3.2%), after having fallen at the start of the year (Graph 15).

Despite the drop in producer inflation and little indication of cost pressure, it is unclear as to whether this will spell less consumer inflation in the short or mid-term. First of all, this is because public utilities, which weigh heavily on the consumer basket of goods and services, are not measured in the PPI. Secondly, there are indications that the force of demand is acting as an incentive for companies to raise their mark ups. This prevents lower costs from translating into lower prices for consumers.

*It is unclear if the drop in producer inflation will pass through to consumer inflation in the short-term.*

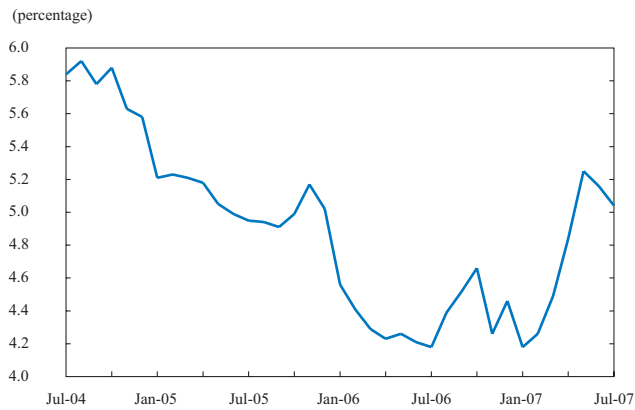
GRAPH 15

PPI BY DIVISIONS  
(ANNUAL VARIATION)



Source: Banco de la República, prior to December 2006, and DANE as of December 2006. Banco de la República's calculations.

**INFLATION EXPECTATIONS AT DECEMBER EACH YEAR:  
BANKS AND BROKERAGE FIRMS**



Source: Banco de la República.

## 6. Inflation Expectations

After increasing sharply at the start of the year, inflation expectations eased a bit during May and June, consistent with the break in the price series. Generally speaking, the various surveys show that economic agents expect a gradual reduction in inflation throughout the year, but not enough to place it within the target range set by the BDBR.

For example, the monthly survey of financial market operators and analysts conducted at the beginning of July shows they expect inflation to be around 5% by December 2007. This is better than in April and May, when inflation was expected to be 5.2% (Graph 16).

The broadest quarterly survey, which gauges the opinion of companies and labor unions, among others, points to less favorable performance, with inflation expected to be 5.6% by the end of the year. Nevertheless, those surveyed in this case also expect inflation to continue on a downward trend that should extend to the first half of 2008.

## II. FINANCIAL MARKETS

**Inflation pressures in a number of countries** can increase international interest rate; however, they should not restrict world liquidity to any great degree. These forecasts do not consider the effect of the recent increase in financial market volatility.

**The growth in credit slowed somewhat last quarter**, although this trend did not include the mortgage loan portfolio, which accelerated. Moreover, the increase in credit still far exceeds nominal GDP growth.

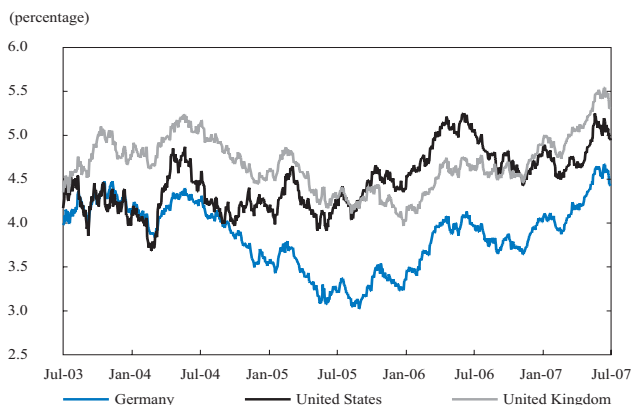
**Pass-through of the Bank's interest rate to lending and deposit rates** picked up during the last two months, but is not complete. Interest rates are now similar to the average for the decade.

**The speed of pass-through to interest rates is expected to increase in the coming months**, since the financial system is expected to liquidate fewer TES and given the impact of the recent change in reserve requirements. Both these factors should help to slow the growth in credit as well.

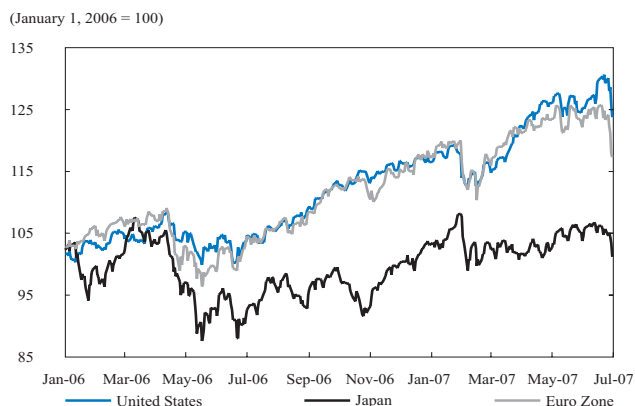
### A. THE INTERNATIONAL CONTEXT

During the second quarter of the year, positive news about world economic growth, coupled with high commodity prices, especially for oil, raised the risk of inflation pressures. Consequently, many of the developed and developing economies are moving towards tighter monetary policies. The result has been an increase in long-term interest rates in a number of countries (Graph 17).

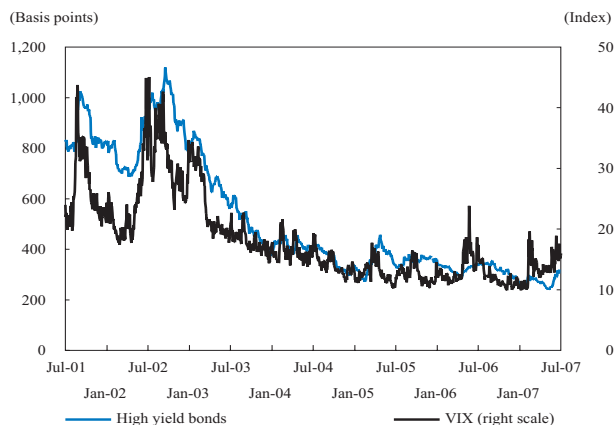
In addition to the rise in interest rates worldwide, the last few weeks brought news of a substantial deterioration in the sub-prime mortgage market in the

**GRAPH 17****INTEREST RATES ON 10-YEAR GOVERNMENT BONDS**

Source: Datastream.

**GRAPH 18****STOCK MARKET INDEXES**

Source: Datastream.

**GRAPH 19****A. RISK AVERSION INDEXES**

Source: Bloomberg.

United States. Nervousness about the possibility of contagion from that sector to the rest of the financial market and the economy in general has raised risk aversion. This, in turn, has made various financial indicators more volatile, including stock prices (Graph 18).

Other indicators, such as the country-risk premiums of the emerging economies, high yield US bonds, and VIX (US stock market volatility index) also increased recently (Graph 19, panels A and B). In July, when this report was being written, Colombia's risk premium was affected to some degree, registering 70 bp increases.

As to foreign exchange markets in the region, the tendency towards appreciation against the dollar continued or increased throughout much of the second quarter, particularly in the case of Brazil, Colombia and Chile (Graph 20). However, in July, the volatility of financial instruments seems to have spread to currencies, some of which weakened against the dollar. Even so, those trends have not been strong, possibly because macroeconomic

**B. EMBI+ AND HIGH SPREAD YIELD**

conditions in these countries remained stable, thanks to good terms of trade.

Regardless of the foregoing, the increase in risk aversion could build and generate more pressure, not only on risk premiums but also on the Latin American currencies, including the Colombian peso. The degree of uncertainty and risk weighing on external financial conditions has increased compared to the situation reflected in the March report.

## B. FINANCIAL MARKETS

In April 2007, twelve months after onset of the change in monetary policy, the pass-through of policy rates was lagging. Real lending and deposit rates at the start of the second quarter were less than the historic averages seen since 1990 and barely bordered the averages in the current decade. For this reason, the BDBR decided in the last three months to continue its policy of gradual intervention rate hikes and to adjust some of the reserve-ratio measures adopted at the beginning of May.

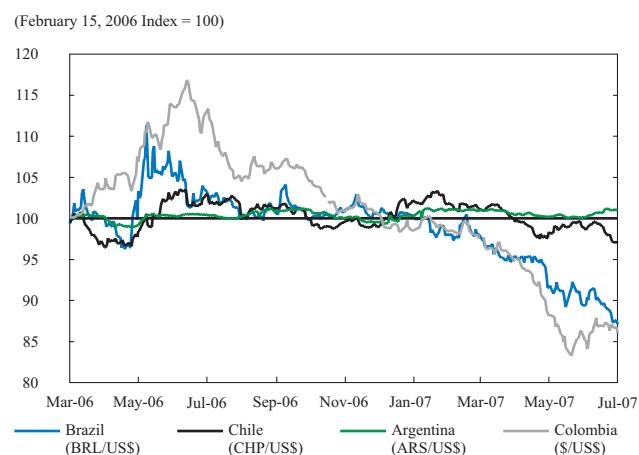
Monetary policy has yet to have a significant impact on credit. At June, annual growth in the total loan portfolio completed more than six months above 30%. This has done little to curb economic growth. The limited impact of monetary policy is due, in part, to the fact that this variable was affected by a supply shock in 2006 and early 2007, fueled with resources from the rebalancing of credit institution assets and an abundance of deposits originating with agents' increased preference for fixed income.

Even so, there was more of a reaction from the credit channel in May and June, when all interest rates showed a stronger response to the policy rate hikes, and credit slowed somewhat. These tendencies might build; however, there is still a great deal of uncertainty in this respect.

### 1. Monetary Aggregates

The narrowest definition of monetary aggregates, especially cash, suggests the increase in preference for liquidity during the last three quarters has declined among agents in the economy. Since September 2006, the annual increase in

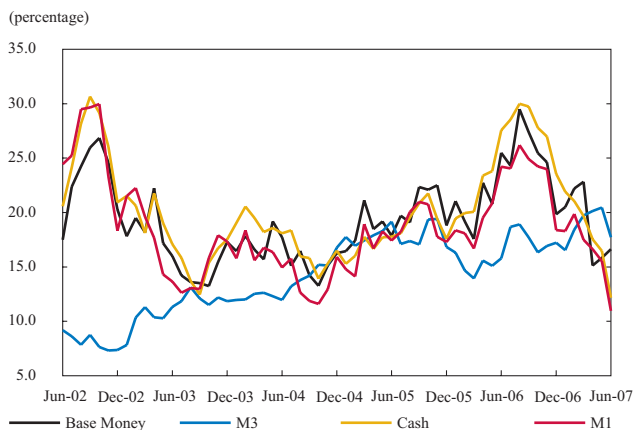
NOMINAL EXCHANGE RATE OF DIFFERENT LATIN AMERICAN CURRENCIES AGAINST THE DOLLAR



*At June, the impact of monetary policy on credit and interest rates was still partial.*

GRAPH 21

ANNUAL GROWTH IN MONETARY AGGREGATES



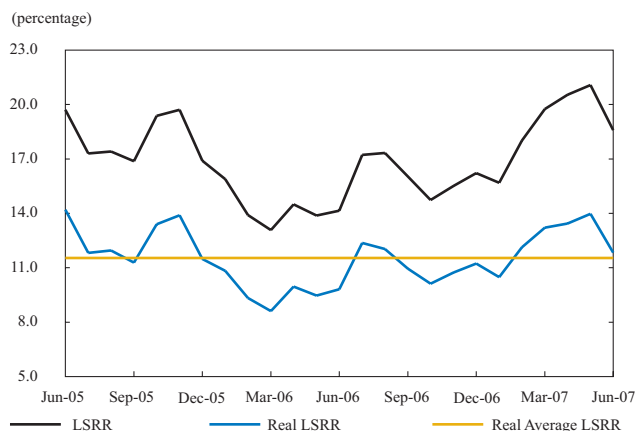
Source: National Office of the Superintendent of Financial Institutions. Banco la República's calculations.

cash dropped from 30% to 12%, means of payment (M1) from 26% to 11%, and base money from 29.5% to 16.6% (Graph 21).

The broader monetary aggregate (M3) showed more of a preference for deposits between April 2006 and May 2007. Regardless of the slowdown in cash, M3 went from 13.9% to 20.5%, due to certificates of deposit (CD) and savings accounts. As a result, liabilities subject to reserve requirements (LSRR)<sup>4</sup> climbed from 13.1% to 21.1% between April 2006 and May 2007. However, by June, this growth rate had declined: the annual variation in M3 was down to 17.7% and that of LSRR, to 18.6%. In real terms, all of this meant approximately 11.5% more resources available from deposits in the last two years, which is almost twice the pace of economic activity (Graph 22).

GRAPH 22

ANNUAL LSRR GROWTH



Source: National Office of the Superintendent of Financial Institutions. Banco la República's calculations.

As mentioned in the last report, there were two periods since March 2006 when the LSRR accelerated:

- The first (March - August 2006) originated when agents<sup>5</sup> decided to reduce their variable income position in pesos (stocks and TES). The goal was to find shelter in domestic fixed income and external assets, given expectations of external interest rate hikes. This caused devaluation of domestic government bonds, a drop in share prices on the stock exchange, and peso depreciation, a process that fed on itself for a few months.
- The second (February – May 2007) witnessed another increase in agents' preference for domestic assets, given expectations of peso appreciation associated with an increase in foreign capital inflows. Added to this was the reduction in the amount of domestic government bonds during February, which also meant a shift in agents' portfolios towards deposits.

<sup>4</sup> All deposits are now liabilities subject to reserve requirements. Between 2000 and 2004, they also included restricted deposits, which accounted for 0.5%, on average, and as much as 1.23% in November 1999.

<sup>5</sup> Most likely concentrated in households and companies.



The increased demand for LSRR in past quarters, particularly the demand for savings deposits, translated into an abundance of resources for credit institutions.

*Credit growth was high, despite the slowdown in May and June.*

The coming months will see a great deal of uncertainty about how LSRR will perform. The following are some of the major reasons why:

- The deposit market was affected by the national government’s net withdrawal of \$5 trillion (t) pesos between May and June 2007, to increase the funds it has available in Banco de la República. In view of this fact, it is hoped the government will again inject resources into the Colombian economy consistent with the traditional savings cycle during the first the year, and in draws during the second, but concentrated chiefly at the end of the year when the seasonal demand for liquidity is higher.
- The prices of variable income securities and government bonds gained stability, implying less market risk and making investment in LSRR relatively less attractive.
- Finally, expectations of peso appreciation were lower than in past months.

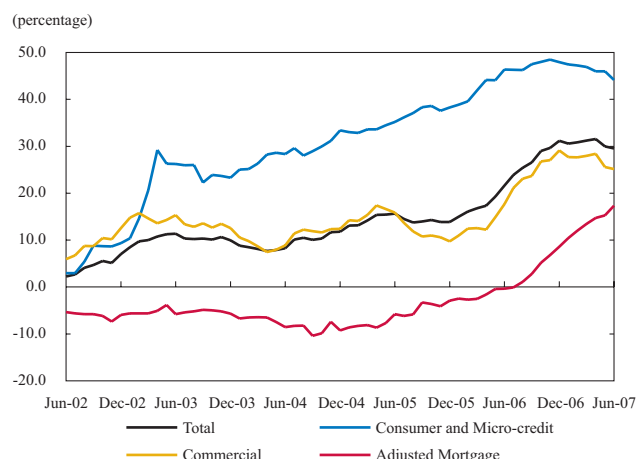
## 2. Credit

Annual loan portfolio growth in the financial system remained high throughout the second quarter, despite being more moderate in May and June. At June, the increase in the total loan portfolio<sup>6</sup> (in domestic and foreign currency) was 29.5% in nominal terms, which is slightly below the rate at March (31.2%). As to type of credit, the consumer and commercial loan portfolios<sup>7</sup> registered respective increases of 44.2% and 25.1% compared to 46.9% and 28.0% in March. Growth in the mortgage loan portfolio picked up speed between March (13.5%) and June (17.3%), prolonging the upward trend witnessed since the fourth quarter of 2006 (Graph 23).

A look at the use and source credit flow in the financial system helps to better understand what happened to credit in May and June, particularly by separating

GRAPH 23

ANNUAL TOTAL GROSS LOAN PORTFOLIO GROWTH



Source: National Office of the Superintendent of Financial Institutions. Banco la República's calculations.

<sup>6</sup> Includes consumer, commercial and adjusted mortgage loans. The latter is the sum of the outstanding mortgage portfolio, plus securitizations.

<sup>7</sup> Consumer aggregate, plus micro-credit.

*In May and June, there were no major TES redemptions by the financial system.*

the monetary policy normalization period into two intervals: the last two months and the rest of the period (April 2006 – April 2007) (Table 5).

The figures presented here contain three interesting facts: i) credit activity in the last two months, including *leasing*, is similar to what it was during the interval up to April 2007, with average monthly increases of Col\$2.3 t in both periods; ii) LSRR dropped Col\$0.8 t due to the decline in deposits during May and June, as a result of the transfer of escrow deposits to the National Treasury, and iii) the investment redemption strategy applied in 2006 and early 2007 was discontinued in April; accordingly, financial institutions increased their TES holdings in May and June (Col\$0.7 t).

### 3. Interest Rates

The BDBR's decision to normalize monetary policy as of April 2006 led to an increase of 300 bp in the interest rate on repo auctions between that month and June 2007. This change is mirrored entirely in the interbank rate (TIB in Spanish), but is lagging with respect to other interest rates.

Even so, in the last month and a half, nominal interest rates tended to react more strongly to the policy rate hikes. The average nominal rate on certificates

TABLE 5

PRINCIPLE USES AND SOURCES  
OF CREDIT INSTITUTION'S RESOURCES

|   | Accumulated Flows |                  |
|---|-------------------|------------------|
|   | Apr-06 to Apr-07  | May-07 to Jun-07 |
| <b>Assets</b>                                       |                   |                  |
| Own cash position                                   | 237.7             | 921.3            |
| Bank reserve  | 1,761.7           | 986.3            |
| Net portfolio                                       | 25,203.5          | 4,286.6          |
| Investments   | (11,633.1)        | 949.4            |
| Leasing portfolio                                   | 2,751.0           | 418.3            |
| Other net assets                                    | (1,661.4)         | (348.6)          |
| <b>Total</b>  | <b>16,659.4</b>   | <b>7,213.3</b>   |
| <b>Liabilities</b>                                  |                   |                  |
| Net OMA   | (8,730.7)         | 8,026.7          |
| LSRR  | 25,390.1          | (813.3)          |
| <b>Total</b>  | <b>16,659.4</b>   | <b>7,213.3</b>   |
| <b>Memorandum item</b>                              |                   |                  |
| <b>Tes B in the financial syst. - nominal value</b> | (6,686.5)         | 714.2            |

Source: National Office of the Superintendent of Financial Institutions. Banco la República's calculations.

of deposit was 8.35% in June, as opposed to 7.8% in March. The bulk of the increase during the second quarter occurred in June (56 bp). The accumulated increase since April 2006 comes to 220 bp. (Table 6).

The cumulative repo-rate adjustment contributed to the increase in the nominal CD rate at June, as did the reduced abundance of resources due to the transfers to the National Treasury. The increased share of corporate (or Treasury) deposits reflects this situation; it was up from 32% of total deposits in CDs at May to 47.5% at June (Table 6).

The average lending rate<sup>8</sup> was 15.3%, compared to 13.9% in March, and has accumulated 240 bp since April 2006 (Table 6).

*Market rates increased more rapidly in May and June than in previous months.*

<sup>8</sup> Calculated by Banco de la República, it includes the commercial, mortgage, preferred, consumer and treasure loan portfolios (the latter with less weight).

TABLE 6

NOMINAL INTEREST RATE

| Deposit Rates                           | Apr-06      | Dec-06      | Mar-07      | May-07      | Jun-07      | Variation     |                  |
|---|-------------|-------------|-------------|-------------|-------------|---------------|------------------|
|   |             |             |             |             |             | Monthly       | Apr-06 to Jun-07 |
| <b>Ordinary Savings</b>                 | <b>3.60</b> | <b>3.92</b> | <b>4.42</b> | <b>4.63</b> | <b>4.32</b> | <b>(0.30)</b> | <b>0.72</b>      |
| <b>CDs</b>                              | <b>6.15</b> | <b>6.98</b> | <b>7.80</b> | <b>7.79</b> | <b>8.35</b> | <b>0.56</b>   | <b>2.20</b>      |
| At 30 days                              | 2.99        | 3.50        | 3.62        | 4.59        | 4.99        | 0.40          | 1.99             |
| From 31 to 44 days                      | 3.89        | 4.00        | 4.38        | 4.86        | 7.36        | 2.50          | 3.47             |
| At 45 days                              | 3.01        | 5.30        | 4.35        | 4.50        | 4.65        | 0.15          | 1.64             |
| From 46 to 59                           | 4.80        | 4.10        | 5.88        | 3.31        | 5.03        | 1.71          | 0.23             |
| At 60 days                              | 4.10        | 4.16        | 4.58        | 5.24        | 4.85        | (0.39)        | 0.75             |
| From 61 to 89 days                      | 5.69        | 6.87        | 7.97        | 8.25        | 8.66        | 0.41          | 2.97             |
| <b>At 90 days - DTF (fixed deposit)</b> | <b>5.93</b> | <b>6.75</b> | <b>7.52</b> | <b>7.61</b> | <b>8.02</b> | <b>0.41</b>   | <b>2.09</b>      |
| From 91 to 119 days                     | 6.30        | 7.32        | 8.13        | 8.45        | 8.77        | 0.32          | 2.48             |
| At 120 days                             | 6.31        | 7.22        | 7.31        | 7.82        | 7.83        | 0.01          | 1.53             |
| From 121 to 179 days                    | 6.67        | 7.45        | 8.25        | 8.52        | 8.69        | 0.17          | 2.02             |
| At 180 days                             | 6.51        | 7.18        | 7.44        | 7.63        | 7.70        | 0.06          | 1.19             |
| From 181 to 359 days                    | 6.83        | 7.68        | 8.19        | 8.19        | 8.61        | 0.43          | 1.78             |
| At 360 days                             | 7.00        | 7.64        | 8.20        | 7.43        | 8.21        | 0.78          | 1.21             |
| Above 360 days                          | 7.20        | 8.47        | 9.46        | 9.62        | 9.89        | 0.27          | 2.69             |
| CD deposits via office network          | 6.08        | 6.63        | 7.03        | 7.14        | 7.45        | 0.31          | 1.37             |
| CD deposits via treas. network          | 6.34        | 7.87        | 8.82        | 8.94        | 9.35        | 0.40          | 3.01             |
| <b>Lending Rates</b>                    |             |             |             |             |             |               |                  |
| BR lending rate                         | 12.94       | 13.04       | 13.92       | 14.83       | 15.33       | 0.51          | 2.40             |
| Consumer                                | 21.14       | 19.57       | 18.52       | 21.19       | 21.85       | 0.66          | 0.71             |
| Ordinary                                | 15.36       | 14.24       | 15.37       | 16.45       | 16.88       | 0.43          | 1.51             |
| Mortgage                                | 13.88       | 13.02       | 13.80       | 14.68       | 15.21       | 0.53          | 1.32             |
| Preferred                               | 8.73        | 10.22       | 11.22       | 11.71       | 12.29       | 0.58          | 3.57             |
| Treasury                                | 7.68        | 9.58        | 10.54       | 11.36       | 11.77       | 0.41          | 4.09             |

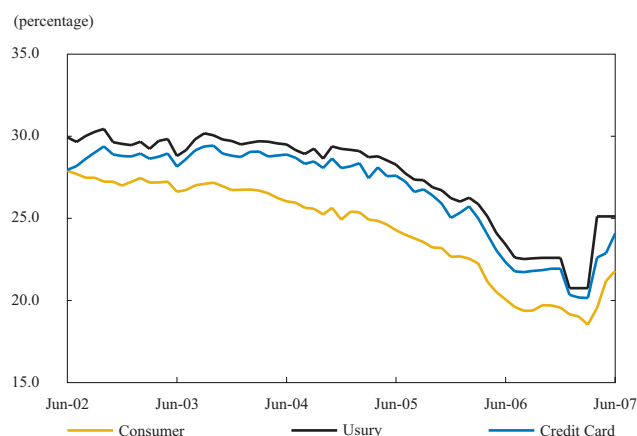
Source: National Office of the Superintendent of Financial Institutions. Banco la República's calculations.

There are two additional facts to bear in mind with respect to the nominal lending rates:

- i) All interest rates were up in June, particularly those on credit card, consumer and home building loans. With respect to the June increase, it is important to recognize the impact the rise in the usury rate could have had on consumer and credit card loans (Graph 24).
- ii) Accumulated policy rate pass-through remains disperse, with more influence on the shortest term credit (treasury, 409 bp and preferred, 357 bp), followed at a distance by ordinary loans (151 bp) and consumer credit (71 bp) (Table 6). A large volume of resources are concentrated in the ordinary and consumer loan portfolios, which have benefited considerably from the credit supply shock.

GRAPH 24

CONSUMER, CREDIT CARD AND USURY RATE



Source: National Office of the Superintendent of Financial Institutions. Banco la República's calculations.

The pass-through to real rates has been slower, but did pick up in May and June, partly because of less inflation. During the past 15 months, CD rates have increased by only 127 bp, and savings rates declined by 13 bp. The average lending rate rose by 140 bp during the same period. This includes everything from a 307 bp increase in treasury loans to a 27 bp decline in interest rates on consumer loans (Table 7). Pass-through in the case of ordinary loans has been limited, and negative with respect to mortgages (for home purchase).

At June, real lending and deposit rates charged by credit institutions were similar to those in effect during April 2006, when the monetary policy stance began to change. These levels are close, or even below, the averages observed during the current decade, which has been characterized by a loose monetary policy intended to support economic activity.

For example, the real *ex post* interest rate on consumer loans is still below the average for 2001-2007, while real interest rates on ordinary loans are barely up to their average for the current decade. Real interest rates on preferred and treasury loans are the only ones that are above average for the same period (Graph 25).

Given those levels, it was difficult for real rates in the second quarter to offer a clear signal, on their own, that would rein in aggregate spending. Therefore, to

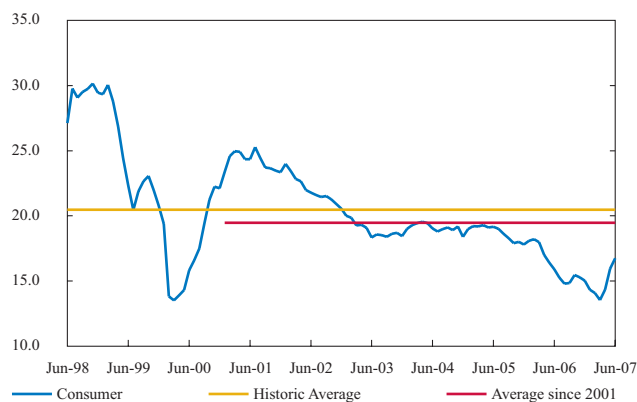
## REAL INTEREST RATE ON NON-FOOD CPI

|  | Apr-06 | Dec-06 | Mar-07 | May-07 | Jun-07 | Variation |                  |
|--|--------|--------|--------|--------|--------|-----------|------------------|
|  |        |        |        |        |        | Monthly   | Apr-06 to Jun-07 |
| <b>Deposit rates</b>                     |        |        |        |        |        |           |                  |
| Ordinary savings                         | 0.07   | (0.03) | 0.04   | 0.10   | (0.06) | (0.16)    | (0.13)           |
| CD                                       | 2.54   | 2.92   | 3.28   | 3.13   | 3.80   | 0.67      | 1.27             |
| DTF                                      | 0.00   | 0.00   | 3.02   | 0.00   | 0.00   | 0.00      | 0.00             |
| <b>Lending rates</b>                     |        |        |        |        |        |           |                  |
| Banco de la República lending rate       | 9.09   | 8.75   | 9.15   | 9.86   | 10.49  | 0.63      | 1.40             |
| Consumer                                 | 17.01  | 15.03  | 13.55  | 15.95  | 16.74  | 0.79      | (0.28)           |
| Ordinary                                 | 11.44  | 9.91   | 10.53  | 11.42  | 11.97  | 0.55      | 0.53             |
| Mortgage                                 | 10.01  | 8.72   | 9.03   | 9.72   | 10.37  | 0.65      | 0.37             |
| Preferred                                | 5.02   | 6.04   | 6.55   | 6.88   | 7.58   | 0.70      | 2.55             |
| Treasury                                 | 4.02   | 5.41   | 5.91   | 6.55   | 7.08   | 0.53      | 3.06             |
| <b>Banco de la República Policy Rate</b> | 2.39   | 3.28   | 3.53   | 3.90   | 4.29   | 0.39      | 1.90             |

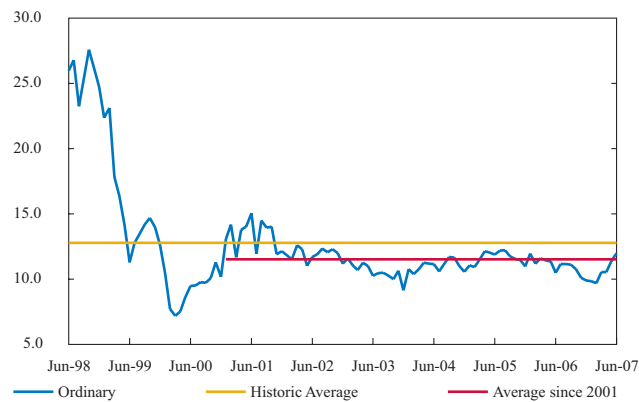
Source: National Office of the Superintendent of Financial Institutions. Banco la República's calculations.

REAL INTEREST RATES <sup>A/</sup>

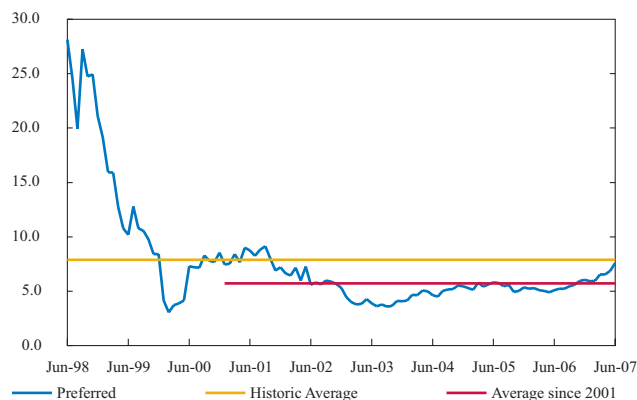
## A. CONSUMER LOANS



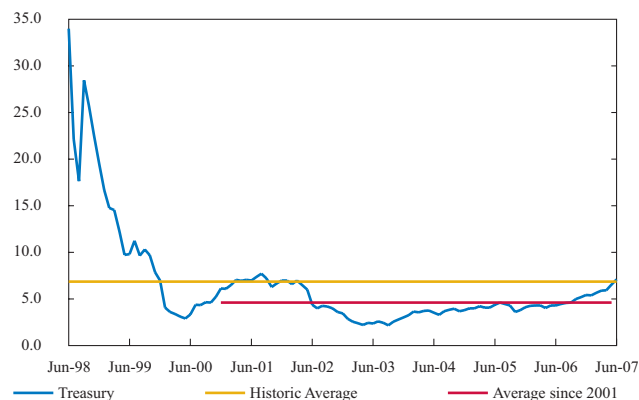
## B. ORDINARY LOANS



## C. PREFERRED LOANS



## D. TREASURY LOANS



a/ Series deflactadas por el IPC Without food ,  
Source: National Office of the Superintendent of Financial Institutions. Banco la República's calculations.

*At June, real interest rates were not high compared to their averages during the present decade.*

accelerate interest rate pass-through, the BDBR adopted several decisions on reserve requirements at its meetings on May 6 and June 15. The key details are outlined in Table 8. Concerning those measures, the following should be taken into account: i) the change in the marginal reserve ratio applies to increases in deposits with respect to the balance on May 7, 2007; ii) the marginal reserve requirement took effect on May 8, but with a temporary ratio of 12.5% for savings until July 10, 2007; and iii) unification of the ordinary reserve ratio for sight deposits and savings accounts took effect on July 11, 2007.

In the coming months, three factors will reinforce the policy interest rate hikes:

- The update in usury rates,<sup>9</sup> which will allow for higher interest rates on consumer and credit card loans.
- The onset of anti-cyclical provisions<sup>10</sup> in July, when the Superintendent of Financial Institutions stipulated a reference model for the commercial loan portfolio; although initial estimates suggest the impact will be moderate at best.
- The marginal reserve requirement for deposits, as of May, and its impact on curbing credit, which will depend on how credit institutions adapt management of their assets and liabilities (this effect will begin to be evident as of July).

**TABLE 8**

**ORDINARY AND MARGINAL RESERVE REQUIREMENTS  
(PERCENTAGE)**

|  | Ordinary Reserve Ratio |                       | Marginal Reserve Ratio |                       |
|--|------------------------|-----------------------|------------------------|-----------------------|
|  | Previous               | Current <sup>a/</sup> | Previous               | Current <sup>a/</sup> |
| Current accounts & other demand deposits | 13.0                   | 8.3                   |                        | 27.0                  |
| Savings accounts                         | 6.0                    | 8.3                   |                        | 27.0                  |
| Certificates of deposit                  | 2.5                    | 2.5                   |                        | 5.0                   |

<sup>a/</sup> ERerve ratios modified by virtue of BDBR external resolutions No. 3 of May 6, 2007 and No. 7 of June 15, 2007.  
Source: Banco de la República.

<sup>9</sup> At June, the usury rate was 25.1% for consumer and ordinary loans, and 33.9% for micro-credit.  
<sup>10</sup> External Circular 035 issued in October 2006 by the National Office of the Superintendent of Financial Institutions.

# III. THE MACROECONOMIC OUTLOOK

**The baseline scenario for this report assumes the external context will be favorable for Colombia**, thanks to high terms of trade and abundant external capital resources. However, the increase in risk aversion observed in recent weeks makes these forecasts more uncertain.

**The forecast for growth during 2007 is up**, and the increase this year is now expected to be similar to what it was in 2006. These results are compatible with more moderate growth during the second half of the year, which would make it easier to accomplish the long-term targets for inflation.

**Inflation will continue to decline during the second half of the year** and in 2008, mainly because of better prices for perishable foods. Even so, non-tradable inflation will remain high for some time, given the demand-pulled inflation pressure observed up to now. The exchange rate is not expected to cause inflation to increase.

**The policy on interest rate hikes** is expected to help to reduce demand-pulled pressure in the coming quarters, and will have the most impact in 2008. At present, the extent of inflation expectations remains a risk to future price stability.

## A. THE INTERNATIONAL CONTEXT

So far this year, the world economy has grown faster than the market expected. The increased momentum in the euro zone and other emerging economies, such as China, has made it necessary to raise their forecasts for the remainder of the year. At the same time, the force of global demand has added to the price of most raw materials, or kept them extremely high. It is in this context that inflation pressures have emerged many countries, leading to increases in current and expected interest rates.

*Recent months have seen inflation pressures emerged in various countries, causing interest rates to increase.*

The coming quarters are expected to see continued growth in the United States economy, which would favor world economic growth. After a weak start in 2007, the US economy began to show signs of strength during the second quarter, when growth was 3.4% as a result of the momentum in non-residential investment, government spending and external demand. This recovery should continue during the remainder of the year, but would be gradual because of the problems that still exist in the housing sector, which was down again during the second quarter.

Accordingly, GDP in the United States is expected be up by 2.1% in 2007 and 2.9% in 2008 (Table 9). The economy will continue to be fueled by household consumption, which is expected to show acceptable growth during those two years, although slightly less than in 2006, due to the wealth effect associated with lower housing prices and to high gasoline prices. The increase in consumption will be accompanied by strong external demand and by relatively dynamic non-residential investment.

The euro zone and Japan performed well during the first quarter (2.4% and 3.3% economic growth, respectively). The rest of the year is expected to see

**TABLE 9**

**GROWTH FORECASTS FOR COLOMBIA'S MAJOR TRADING PARTNERS <sup>A/</sup>**  
(PERCENTAGE)

|                               | Actual<br>2006 | Forecasts for |            |            |            |
|-------------------------------|----------------|---------------|------------|------------|------------|
|                               |                | 2007, at:     |            | 2008, at:  |            |
|                               |                | Jul-07        | Apr-07     | Jul-07     | Apr-07     |
| <b>Major Trading Partners</b> |                |               |            |            |            |
| United States                 | 3.3            | 2.1           | 2.4        | 2.9        | 3.0        |
| Euro Zone                     | 2.7            | 2.7           | 2.3        | 2.3        | 2.1        |
| Ecuador                       | 4.5            | 3.3           | 3.4        | 3.0        | 3.2        |
| Venezuela                     | 10.3           | 7.0           | 6.8        | 3.8        | 3.5        |
| <b>Other Partners</b>         |                |               |            |            |            |
| Japan                         | 2.4            | 2.3           | 2.1        | 2.2        | 2.2        |
| China                         | 10.5           | 10.4          | 9.7        | 9.8        | 9.6        |
| Peru                          | 7.2            | 7.0           | 6.6        | 5.9        | 5.7        |
| Mexico                        | 4.7            | 3.1           | 3.4        | 3.6        | 3.7        |
| Chile                         | 4.3            | 5.7           | 5.1        | 5.2        | 5.0        |
| Argentina                     | 8.4            | 7.6           | 7.5        | 5.8        | 5.6        |
| Brazil                        | 2.8            | 4.2           | 3.6        | 4.2        | 3.7        |
| Bolivia                       | 4.1            | 4.5           | 4.6        | 4.1        | 4.1        |
| Developed Countries           | 3.2            | 2.2           | 2.4        | 2.8        | 2.8        |
| Developing Countries          | 7.3            | 5.5           | 5.4        | 4.0        | 3.9        |
| <b>Total Trading Partners</b> | <b>4.7</b>     | <b>4.1</b>    | <b>4.1</b> | <b>4.0</b> | <b>3.9</b> |

a/ Balance of payments calculated according to non-traditional exports.  
Source: Datastream-Consensus.



very little change in that trend. In the case of the European economy, the growth forecasts have been raised with respect to three months ago, and are now 2.7% for 2007 and 2.3% for 2008. The forecasts for Japan remained unchanged at 2.3% for this year and 2.2% for the next (Table 9). Both economies are expected to perform well in terms of investment, consumption and exports, as they have for several quarters.

Strong world demand so far this year, coupled with higher forecasts for the second half of 2007 and 2008, has raised pressure on oil and other commodity prices. The oil situation is complicated by production problems (in Nigeria and Iran, along with the political crisis in Palestine) and the cutbacks ordered by the Organization of Oil Exporting Countries (OPEC) at the start of this year, all of which raised prices to above US\$70 per barrel, which is more than was anticipated in the March report (Graph 26). In view of these factors, the price forecasts in this report are higher. For example, West Texas Intermediate (WTI) is expected to be US\$66 per barrel in 2007 and US\$67.8 in 2008.

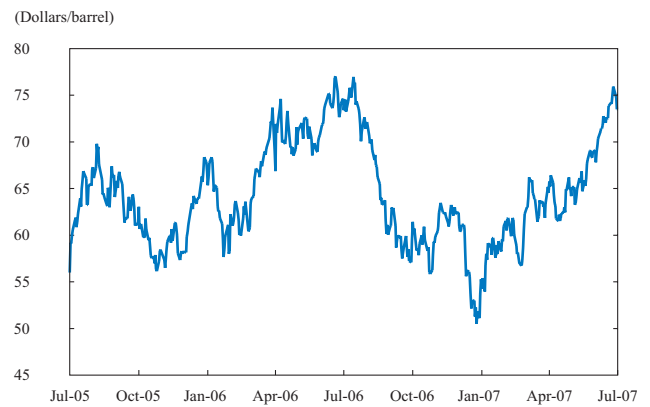
The forecasts for commodity prices (excluding energy) also improved significantly compared to expectations three months ago. According to The Economist Intelligence Unit (EIU), commodity prices would be up by 11.1% in 2007, as opposed to 6.1% forecast in the March report. All the forecasts still include a slight drop in 2008, but from a very high level (Graph 27).

The forecasts for Colombia's main exports in 2007 and 2008 are considerably higher than in the March report, especially for coal, ferronickel and oil. The predictions for coffee are not as favorable; yet, they could be underestimated a bit, given recent news about an eventual cutback in world coffee supply during the next few quarters (Table 10).

Strong demand in most countries, coupled with high commodity prices, has raised the risk of inflation in a number of developed and emerging economies. The downward trend in US core inflation continues, but is not very pronounced, apparently not enough for the

GRAPH 26

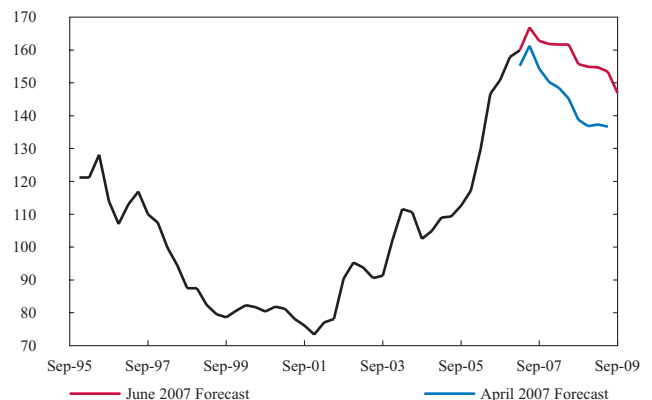
OIL PRICES (WTI)  
NEW YORK STOCK EXCHANGE



Source: Bloomberg.

GRAPH 27

TOTAL COMMODITY PRICE INDEX,  
WITHOUT OIL (WCF)



Source: The Economist Intelligence Unit.

TABLE 10

## INTERNATIONAL PRICES

|                                  | 2005  | 2006  | Current Forecast <sup>a/</sup> |       | Previous Forecast <sup>b/</sup> |       |
|----------------------------------|-------|-------|--------------------------------|-------|---------------------------------|-------|
|                                  |       |       | 2007                           | 2008  | 2007                            | 2008  |
| Coffee (ex dock) (dollars/pound) | 1.2   | 1.2   | 1.2                            | 0.9   | 1.2                             | 0.9   |
| Oil (dollars/barrel)             | 49.8  | 58.3  | 54.1                           | 61.4  | 51.3                            | 47.9  |
| Coal (dollars/ton)               | 47.8  | 48.0  | 51.5                           | 49.1  | 48.8                            | 45.9  |
| Ferronickel (dollars/pound)      | 2.4   | 3.6   | 6.6                            | 4.3   | 6.1                             | 4.7   |
| Gold (dollars/troy ounce)        | 445.0 | 604.6 | 655.3                          | 690.3 | 690.3                           | 725.3 |

a/ Estimated balance of payments at July 2007

b/ Estimated balance of payments at April 2007

Source: Banco de la República.

monetary authority. As a result, the United States Federal Reserve Bank (the Fed) is expected to hold its interest rates at 5.25% for the rest 2007.

Pressure on prices in Europe could pose more a cause for concern if the build-up in core inflation observed in recent months continues. To keep this from happening, the European Central Bank would have to make additional adjustments in its intervention interest rates (which were 4% in July). Japan is a special case and, although core inflation has not increased, gradual rate hikes cannot be ruled out, since the monetary authority needs to control any future pressure on prices.

In addition to these economies, other countries such as Canada, the United Kingdom and Chile have begun to tighten their monetary policies to control upward inflation pressures. The same phenomenon also has begun to be evident in economies that have enjoyed strong growth for a number of years, with low inflation. China is the most obvious example. It saw a worrisome rebound in inflation during recent months, on par with the build-up in economic growth. This growth surprised the markets, due to its strength during the second quarter (11.9%), and there is no indication it will help to ease pressure on prices in the future, inasmuch as the forecasts continue to be extremely high (10.4% for 2007 and 9.8% for 2008). Consequently, China's monetary authorities are likely to make further adjustments in their monetary policy and to allow the yuan to appreciate further.

Despite expectations of higher interest rates, the outlook for the emerging economies in Latin America remains promising. Terms of trade have stayed at historically high levels, and the demand for Latin American exports has grown considerably, all of which has enabled those economies to avoid accumulating a large external imbalance. Growth has surpassed all expectations. As a result,

the forecasts for the rest of 2007 and all of 2008 were raised, especially for Brazil, Chile and Peru.

The forecast for growth in Venezuela during 2007 was increased somewhat, compared to the March report (from 6.8% to 7%). During the remainder of the year and in 2008, the markets expect to see less GDP growth in Venezuela. However, these forecasts could be overly pessimistic, if oil prices continue to rise. As to Ecuador, its economic growth remains extremely moderate, and no change in this trend is expected during the rest of the year or in 2008.

Given the foregoing, the baseline scenario for this report is similar to the one for the March report. In essence, it assumes international interest rates will increase and liquidity will decline somewhat, particularly during 2008. However, these hikes are still expected to be moderate and part of a return to normal in the world monetary situation, rather than part of a sharp liquidity squeeze. Therefore, the remainder of the year and 2008 are expected to see no radical change in capital flows for Colombia or the other emerging economies.

The baseline scenario presents two key risks that add to uncertainty about the current forecasts:

1. Current mortgage problems in the United States could extend to other segments of the financial market and to the productive sector. If this happens, risk aversion probably would increase sharply. Economic performance in the United States could be affected as a result, and eventually undermine terms of trade for the emerging economies and the flow of capital to those economies. However, the likelihood of this risk materializing is not substantial, as problem loans still account for only small part of the US economy.
2. Inflation in the United States could exceed the Fed's implicit targets, pressured by high prices for oil and other raw materials, by high capacity use, and by a job market that remains tight. Under these conditions, the monetary authority is like to adjust interest rates further, which could limit access to external resources for the emerging economies.

## B. DOMESTIC GROWTH

The growth figure for the second quarter had yet to be announced at the time this report was written, but is expected to be slightly less than during the first quarter. This prediction is based on the various indicators available to date.

*This report forecasts no changes in capital flows to Colombia...*

*... however, recent events have added to uncertainty in the external context.*

Consequently, in the baseline scenario, GDP growth is forecast at 5.8% to 7.7% for all of 2007 (Graph 28), with 6.6% as the mid-point (Table 11). This is much higher than the forecast in the March report, which was between 5.0% and 6.5%. The bias towards added growth is explained by more public and private investment and by more external demand, particularly in Venezuela. The forecast for growth takes into account the adjustment in public spending announced by the government for 2007.

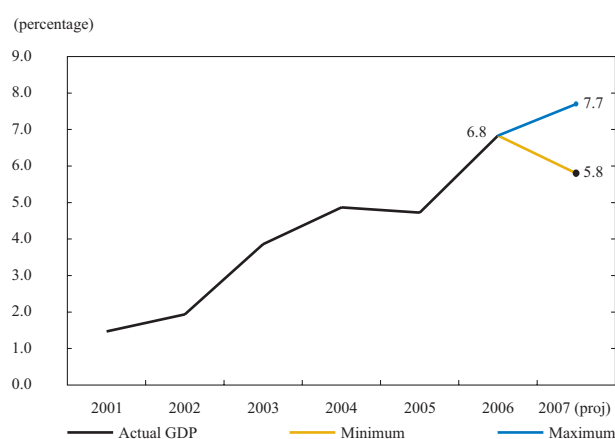
Broadly speaking, the various spending components are expected to continue to perform well throughout 2007, although some moderation during the second half of the year is expected. This would be consistent with the current monetary-policy strategy.

As to household consumption, data from the Fedesarrollo Consumer Confidence Index suggest less growth during the coming months (Graph 29). The sales figures registered in the DANE Retail Survey also point in that direction. Even so, this variable is expected to increase by 6.6% during 2007, on the whole, which is still extremely good (Table 11) and similar to the growth registered in 2006.

Investment will continue to be an important motor of growth during the remainder of 2007. The way imports

GRAPH 28

REAL ANNUAL GDP GROWTH



(proj) projected.  
Source: DANE, Banco de la República's calculations.

TABLE 11

REAL GDP GROWTH BY TYPE OF SPENDING  
(PERCENTAGE)

|                                      | 2003        | 2004        | 2005        | 2006        | 2007 (proj) |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|
| <b>End consumption</b>               | <b>1.7</b>  | <b>4.8</b>  | <b>4.9</b>  | <b>5.5</b>  | <b>5.5</b>  |
| Households                           | 2.4         | 6.0         | 5.0         | 6.6         | 6.6         |
| Government                           | (0.3)       | 1.1         | 4.3         | 2.1         | 1.8         |
| <b>Gross capital formation</b>       | <b>14.7</b> | <b>15.6</b> | <b>18.7</b> | <b>26.9</b> | <b>23.2</b> |
| Gross fixed capital formation (GFCF) | 15.4        | 15.0        | 18.9        | 18.2        | 21.8        |
| GFCF without civil works             | 15.9        | 22.0        | 16.7        | 18.5        | 22.0        |
| Civil works                          | 14.0        | (7.9)       | 28.7        | 17.2        | 21.3        |
| <b>Domestic demand</b>               | <b>3.7</b>  | <b>6.6</b>  | <b>7.4</b>  | <b>9.8</b>  | <b>9.6</b>  |
| <b>Total exports</b>                 | <b>5.7</b>  | <b>10.0</b> | <b>7.0</b>  | <b>7.8</b>  | <b>10.0</b> |
| <b>Total imports</b>                 | <b>4.7</b>  | <b>19.8</b> | <b>19.9</b> | <b>20.8</b> | <b>21.0</b> |
| <b>GDP</b>                           | <b>3.9</b>  | <b>4.9</b>  | <b>4.7</b>  | <b>6.8</b>  | <b>6.6</b>  |

(proj) Projected.  
Source: DANE, Banco de la República's calculations.

of capital goods have behaved so far this year suggests as much in the case of private investment (Graph 30). As to public investment, the start of various infrastructure projects guarantees solid growth during the rest of the year. On the whole, gross fixed capital formation (GFCF) is expected to increase by 21.8% this year, which is more than in 2006 (18.2%).

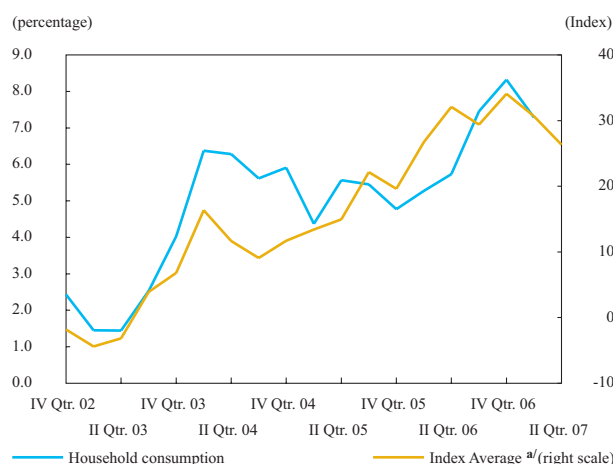
The favorable investment cycle is linked to the fact that capital goods have become less expensive because of appreciation, the low international prices associated with these goods, and tax exemptions on reinvested profits. Moreover, a good portion of the growth in capital goods imports is directed towards Colombia's export sector, allowing for an increase in productive capacity to supply external demand.

With a considerable increase in investment and household consumption, one would expect to see equally important growth in imports. A 21% rise in imports is anticipated for 2007, continuing the trend begun in 2004 (Table 11). On the other hand, the strong momentum in world demand, particularly in Venezuela (which has grown by almost 20%), should continue, suggesting that Colombian exports will perform well in the coming quarters. Even so, peso appreciation could affect the performance of exports to certain countries, especially the United States and Ecuador. The increase in total exports during 2007, as a whole, is expected to be 10%, which is more than in 2006 (7.8%) (Table 11).

### C. BALANCE OF PAYMENTS

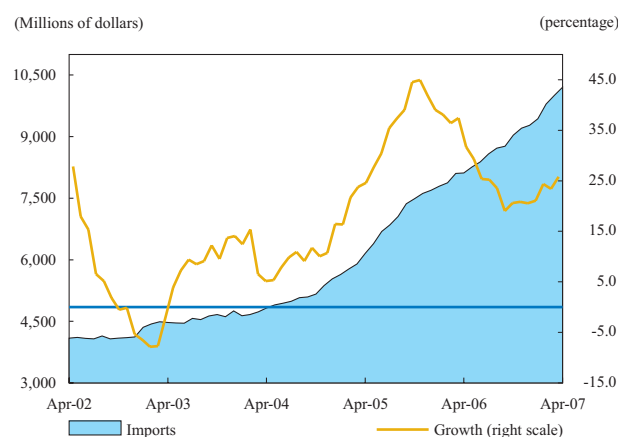
The current account deficit in 2007 is forecast at US\$6.610 m (4.0% of annual GDP), which implies a correction in the external imbalance compared to the deficit registered in the first quarter of the year (4.6% of quarterly GDP). This improvement assumes less growth in imports during the second half of the year, associated with expectations of less momentum in private consumption due to the rise in interest rates. Moreover, export earnings during the coming quarters are expected to surpass those reported for the first quarter of 2007, given the

**HOUSEHOLD CONSUMPTION AND THE FEDESARROLLO CONSUMER SURVEY**



a/ Average of the Fedesarrollo Consumer Index, which includes the Consumer Confidence Index (CCI), the Consumption Expectation Index (CEI) and Index of Economic Conditions (IEC).  
Source: Fedesarrollo; Banco de la República's calculations.

**CAPITAL GOODS IMPORTS (12 MONTH ACCUMULATION)**



Source: DANE.

*The current account deficit in 2007 is expected to be 4% of GDP.*

steady increase in international commodity prices and added demand for Colombian products in Venezuela.

As to the capital account, international investor confidence in good performance of the Colombian economy for the assumption that the influx of resources from abroad, in the form of foreign direct investment (FDI), will continue to be the primary source of financing, in amounts that could exceed those of 2006. The current account deficit also will be financed with flows from both the public and private sectors.

Finally, it is important to point out that the effects of the measures adopted by Banco de la República and the government to dissuade the entry of speculative capital (short-term) will continue to be felt during the second half of 2007. Inflows of short-term capital increased in recent months, attracted by the difference in external-domestic yield. However, as of May, they declined sharply. Consequently, the projected inflow of private capital for the entire year, without FDI, is US\$2,060 m; the amount registered at March was US\$1,864 m.

#### D. INFLATION FORECASTS

*The forecasts for total and core inflation increased.*

##### 1. Forecasts

Banco de la República's inflation projection for an eight-quarter horizon is presented in this section. As is customary, the forecasts pertain to those of a baseline scenario that features the assumptions outlined in the preceding sections, as well as an active monetary policy that allows inflation to converge towards its long-term target (around 3%).

The new forecasts in this report, which are for the rest of 2007 and all of 2008, are the higher than those in the March report. The increases affect four of the five CPI sub-baskets, but are particularly significant in the case of food and the non-tradable index, excluding food and regulated prices. Specifically, the food inflation forecast for December 2007 went from 7.0% to 7.7%; for the non-tradable CPI, it rose from 4.9% to 5.4%. Non-food tradable inflation, excluding regulated prices, increased as well, but less so. Given these results, the non-food inflation forecast for December is 4.3%, which is within the target range (3.5% to 4.5%). However, the forecast for total inflation continues to top the target range (Table 12).

The following are the reasons for the increase in the forecasts:

1. There will be more pressure on the economy's productive capacity during the remainder of the year, compared to what was anticipated in earlier

CENTRAL MODEL FORECASTS (TMM) <sup>a/</sup>  
(PERCENTAGE)

|        | Total Inflation | Food Inflation | Non-food Inflation |               |           |           | Output Gap |
|--------|-----------------|----------------|--------------------|---------------|-----------|-----------|------------|
|        |                 |                | Total              | Non-tradables | Tradables | Regulated |            |
| Mar-07 | 5.8             | 8.9            | 4.4                | 4.9           | 2.0       | 7.5       | 2.9        |
| Jun-07 | 6.1             | 9.7            | 4.4                | 5.1           | 1.8       | 7.5       | 2.6        |
| Sep-07 | 5.3             | 8.2            | 4.0                | 5.5           | 1.3       | 5.3       | 2.4        |
| Dec-07 | 5.3             | 7.7            | 4.3                | 5.4           | 1.7       | 5.7       | 2.3        |
| Mar-08 | 4.6             | 5.3            | 4.2                | 5.5           | 1.7       | 5.8       | 1.9        |
| Jun-08 | 4.2             | 4.1            | 4.3                | 5.6           | 1.8       | 6.2       | 1.4        |
| Sep-08 | 4.2             | 4.1            | 4.3                | 5.6           | 2.0       | 5.5       | 0.8        |
| Dec-08 | 4.1             | 4.2            | 4.1                | 5.2           | 2.2       | 4.8       | 0.3        |
| Mar-09 | 4.0             | 4.1            | 4.0                | 5.0           | 2.5       | 4.2       | (0.2)      |
| Jun-09 | 3.9             | 3.9            | 3.9                | 4.7           | 2.8       | 3.5       | (0.5)      |

a/ These forecasts are based on a monetary policy designed to ensure the long-term targets for inflation are met.  
Source: Banco de la República.

reports. This is due to a major increase in the growth estimates for 2007, as mirrored by a higher estimated output gap. For the most part, these changes translated into higher non-food tradable inflation, excluding regulated prices; however, they also are having an impact on inflation in other CPI segments (such as processed foods).

- International food price forecasts are higher. There is also the added influence of external demand, especially demand originating in Venezuela. Both these factors have led to an increase in the forecasts for processed foods.
- Contrary to expectations, the impact of accumulated appreciation at the end of 2006 and so far this year has yet to be reflected in a proportional decline in tradable inflation, excluding food and regulated prices. The constant underestimation of this variable has raised the 2007 inflation forecasts to some extent.

An important feature of the new forecasts is the assumption of a more prolonged increase in processed food inflation compared to earlier reports. This is because processed food prices should continue to be exposed to external (Venezuelan) and domestic demand-pulled pressures and to high international prices for some time. Even so, these pressures should ease gradually during 2008, in response to the interest rate adjustment. This would lower food inflation to levels nearer the targets.

On the other hand, now that El Niño is over, perishable food inflation is expected to return to below 5% during the third quarter. This is similar to the trend forecast

*The current forecasts point to a more prolonged rise in processed food prices.*

*The forecast for tradable inflation, excluding food and regulated prices, is higher in this report.*

in the last two reports. Even so, the anticipated disinflation in perishable foods plays less of a role in the forecasts for total inflation, given the added weight of pressure derived from demand and external prices.

On the whole, the forecasts show annual inflation will dip during the third quarter of the year, but remain stable during the fourth. This is because fourth-quarter inflation last year was very low (mainly because of regulated prices), which reduces the likelihood of a drop in annual inflation during the same period this year.

In 2008, inflation is expected to continue to move gradually towards its long-term targets, thanks largely to food inflation. However, the decline will be slower than contemplated in the March report, due to undeviating inflation pressures on food and on non-tradables, as noted earlier. In the case of food, this development does not assume added increases in external prices.

The non-tradable inflation forecast for 2008, excluding food and regulated prices, is higher in the present report. This is attributed to more growth anticipated for 2007 and the wider output gap that would result. As indicated in earlier sections of this report, growth in aggregate demand has surpassed its productive capacity for several quarters, allowing demand-pulled pressures to emerge despite the change in interest rates. The increase in projected growth adds to the likelihood that these pressures will be more prolonged than was contemplated initially.

The forecasts for 2008 show that non-tradable inflation, excluding food and regulated prices, will exceed the BDBR target range for that year (from 3% to 4%). Non-tradable inflation is expected to peak between the end of this year and early 2008, and should begin to decline towards the second half of the year. However, that implies more moderate domestic growth in the second half of 2007 and during 2008, in response to the changes in the interest rates, and would allow the output gap to close gradually as of September. Various estimates developed by Banco de la República show the maximum response from non-tradable inflation to interest rate changes occurring in a period of approximately six quarters.

*The inflation forecasts assume growth will ease as of the second half of the year.  
del segundo semestre  
del año,*

According to the baseline scenario forecasts in this report, consumer inflation during 2008 will continue to benefit from low exchange-rate pressure. This means that tradable inflation, excluding food and regulated prices, will stay well below the long-term target throughout the year.

On the other hand, some of the pressures associated with high international fuel prices will persist and will continue to be manifest in the form of readjustments



in domestic fuel prices above 5%. The primary effect on consumer inflation will be felt in public transportation rates. This report forecasts no additional hikes in external fuel prices during the remainder of 2007 or in 2008.

*No additional hikes in external fuel prices are forecast.*

Consequently, for 2008, inflation excluding food and regulated prices will stay a bit above 4%, with a slight tendency to decline towards the end of the year. Implicit in these results is a relatively quick interest rate pass-through compared to the last 15 months, and more than was contemplated in the March report.

## **2. Risks**

The central scenario outlined in the preceding sections implies risks in both directions:

The upwards risks:

- Aggregate demand could grow more than anticipated. This is the chief upward risk, as is the effect it would have on demand-pulled inflation. This risk is based on the strong growth in credit, which continues despite a slowdown in May and June, and the relatively low level of real interest rates. Added to this are other factors, such as the considerable amount of public investment forecast for the remainder of the year. These circumstances could keep growth in spending above the economy's productive capacity.
- Inflation expectations remain high (5%) in relation to the 2007 target and are likely to stay that way during the rest of the year, given the forecasts for inflation. This could have repercussions for wage and price negotiations that do not consider the Bank's targets and could speed up the wage hikes that usually are decided at the end of the year. All of this would delay convergence towards the long-term target for inflation.
- Although wages do not appear to be a source of inflation pressure, at least up to now, they could be in the near future, since the growth labor supply is very slow, as suggested by the decline in the global employment rate (GER) during the last few months. This risk could increase if the nationwide demand for labor grows as it already has in specific sectors, such as industry and commerce.
- Food prices are not exempt from pressure during the second half of the year. Further increases in international prices could be one source of

*High inflation expectations are a risk for 2008.*

*The recent events on world financial markets add to the uncertainty about the forecasts.*

pressure, given the force of demand worldwide and the increased demand for bio-fuels. Several prices that were not included in our forecasts were higher in June. Another source of pressure could be the cattle cycle, which should be about to enter a new retention phase. The resulting decline in supply would bring more pressure to bear on the price of meat, which is a very important item in the CPI basket.

Downward risks:

- The second half of 2007 could see more of a reduction in perishable food prices than is contemplated in the baseline scenario, given their sharp surge at the beginning of the year. Previous experience shows there is a close correlation between the extent of price hikes associated with El Niño weather and the extent of subsequent price reductions.
- The models might be underestimating the speed of the economy's response to the interest rate changes. If this is coupled with a certain amount of risk due to an eventual overestimation of the output gap, given the increase in investment in recent years, the forecasts contemplated in the baseline scenario for baskets such as the non-tradable CPI excluding food and regulated prices might be high.

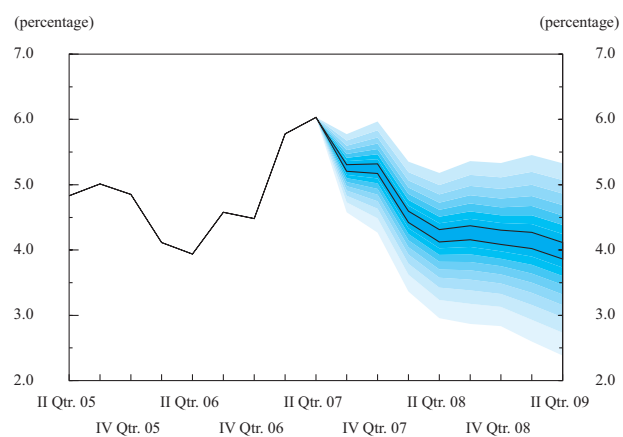
The news of problems in the US mortgage market and the possibility they could spill over into other credit and asset markets in the United States and in other developed economies was announced at the time this report was being written. Risk perception in financial markets increased as a result, threatening to alter expectations for world growth. This new situation was not included in the risk balance outlined earlier. However, the consequences for Colombia could be extremely diverse and point in different directions with respect to the inflation forecasts. Tentatively speaking, these events make those forecasts more uncertain.

Graph 13 shows the condensed risk balance in a fan chart, along with the probability table. The results imply a monetary policy that is adjusted to ensure the long-term targets for inflation are met.

In general, the fan chart shows an even risk balance, but with a higher degree of related uncertainty. Uncertainty also has increased because of DANE's revision of the CPI basket, which will take effect next year. Undoubtedly, this means the addition of new goods and services to the CPI, and could alter the way its sub-baskets are weighted. Those modifications could produce changes – upward or downward – in the inflation measurement, and should be interpreted, in part, as temporary shocks.

*In 2008, there might be changes in inflation if DANE introduces a new basket of goods and services.*

**PROBABILITY DISTRIBUTION OF THE INFLATION FORECAST (FAN CHART) <sup>a/</sup>**



**ACCUMULATED PROBABILITY OF ACTUAL CONSUMER INFLATION WITHIN THE INDICATED RANGE**

| Inflation Ranges (%) | Probability (%) |               |
|----------------------|-----------------|---------------|
|                      | December 2007   | December 2008 |
| Above 5.5            | 32.8            | 7.1           |
| Below 5.5            | 67.2            | 92.9          |
| Below 5.0            | 33.8            | 81.9          |
| Below 4.5            | 10.5            | 63.7          |
| Below 4.0            | 1.9             | 41.0          |
| Below 3.5            | 0.2             | 20.4          |
| Below 3.0            | 0.0             | 7.5           |

a/ These forecasts are based on a monetary policy designed to make sure the long-term inflation targets are met.  
Source: Banco de la República.

WHAT HAPPENS IF A CENTRAL BANK RESPONDS TO THE TREND  
IN THE OUTPUT GAP INSTEAD OF THE LEVEL OF THE OUTPUT GAP  
AND INFLATION?

Andrés González  
Juan David Prada  
Diego Rodríguez\*

The purpose of this article is to determine the effect of using the trend in the output gap, rather than the magnitude of that gap, as an economic performance indicator to determine a central bank's interest rate. The question is posed in light of recent developments in several real and financial variables that appear to indicate a slowdown in the economy. However, they also show that current production exceeds its long-term level.

To arrive at an answer, the volatility of the output gap and the deviation of inflation from its target are compared, using a dynamic stochastic general equilibrium model in which the monetary authority follows one of two rules. With the first rule, the central bank sets its interest rate according to the recent level of the output gap and the deviation of inflation from its target. With the second, it follows the behavior of inflation, as with the first rule, but responds to variations in the output gap, rather than its level.

The following equations describe the general equilibrium model used for this article:

$$(1) \quad x_t = \rho_x x_{t-1} + (1 - \rho_x) E_t x_{t+1} - \beta (i_t - E_t \pi_{t,1}) + \varepsilon_{xt}$$

$$(2) \quad \pi_t = \rho_\pi \pi_{t-1} + (1 - \rho_\pi) E_t \pi_{t+1} + \kappa x_t + \varepsilon_{\pi t}$$

Where  $x_t$  is the level of the output gap, which is the difference between actual output and the long-term level;  $i_t$  is the nominal interest rate gap, understood as the difference between the actual nominal interest rate and its long-term level;  $\pi_t$  is the deviation of inflation from the target, or the inflation gap; and  $E_t \pi_{t+1}$  and  $E_t x_{t+1}$  are inflation deviation and output gap expectations, given the data up to  $t$ .

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Equation (1) represents the IS-curve of the economy, according to which the output gap is a function of its past level, the real interest rate gap<sup>1</sup> and future gap expectations. Equation (2) is a hybrid Phillips curve that shows how deviations of inflation from its target are keyed to past deviation, inflation expectations and the output gap level. Equations (1) and (2), together with the nominal interest rate determination rule used by the monetary authority, determine the equilibrium level for output, inflation and the interest rate.

In general, the policy rules reflect the central bank's intention to stabilize the economy; that is, to ensure stable growth compatible with the inflation target. Accordingly, one of interest-rate-setting rules applied most often to characterize a central bank's performance in a macroeconomic model is:

$$(3) \quad i_t = \rho_i i_{t-1} + \psi_1 \pi_t + \psi_2 x_t + \varepsilon_{it},$$

Rule (3) shows the central bank's interest rate is keyed to the actual difference between inflation and its target; that is, the inflation gap, and the output gap level. The term "interest rate lag" signifies the gradual rate-adjustment policy followed by a monetary authority, which also is concerned with financial stability.

In the model defined by (1), (2) and (3), when the output gap is positive and inflation is above target, the central bank responds by raising its interest rate. The result is less aggregate demand and, therefore, a decline in output consistent with less of a gap (equation (1)), which leads to less pressure on inflation (equation (2)).

Although this is one of the rules used most often in macroeconomic models, other versions can be considered. One possible variation, which is particularly relevant in the current situation, is to consider a central bank that responds not to the level of the output gap but to the trend in that gap. In other words, the central bank follows a rule such as:

$$(4) \quad i_t = \rho_i i_{t-1} + \psi_1 \pi_t + \psi_2 (x_t - x_{t-1}) + \varepsilon_{it}$$

Therefore, with the model given by (1), (2) and (4), when inflation is above target and the variation in the output gap is sufficiently negative, the monetary authority would respond by holding the rate, or even lowering it.<sup>2</sup> Likewise, if inflation is at its long-term level and the gap is at its maximum or minimum point, the monetary authority would

<sup>1</sup> The real interest rate gap is defined as  $r_t = i_t - E_t \pi_{t+1}$ .

<sup>2</sup> Output would have to evolve from an increase at rates above those of potential output to an increase at rates equal to or less than those of potential output if there is to be a change in the trend of an output gap that already is positive.

leave its interest rate unchanged. Hence, changes in interest rates would abide by the behavior of inflation and signs of change in the gap.

This article offers a comparison of how inflation and output are affected by application of the rules defined in (3) and (4), based on a forecast exercise for the period from March 2007 through September 2010. In that exercise, the parameters in (3) and (4) are assumed to be equal, which means the monetary authority would react similarly under both rules to deviations of inflation from the target and to gap indicators. This assumption is consistent with our ultimate objective, which is to determine what would happen if the focus were on the trend in the output gap instead of its level, with no variation in the relative weights.<sup>3</sup>

The inflation paths, nominal interest rate and output gap implicit in the forecast model used by Banco de la República (TMM) are applied to initiate the forecast. As illustrated in Graph B1, the last rate for the output gaps and infla-

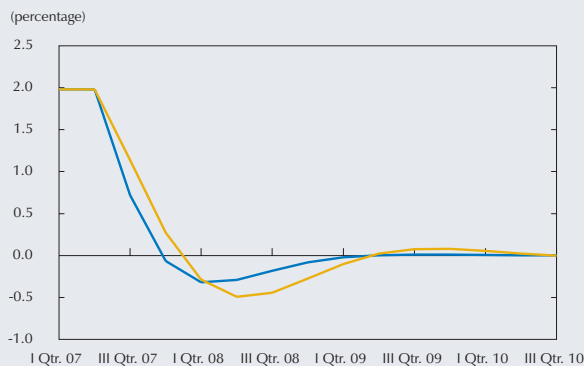
<sup>3</sup> An alternative exercise was done in which parameters (3) and (4) were calculated. They minimize the loss function of a central bank, given by:

$$L = \sum_{i=0}^j \beta^i [\chi_{t+i}^2 + \lambda_{t+i}^2 + i_{t+i}^2]$$

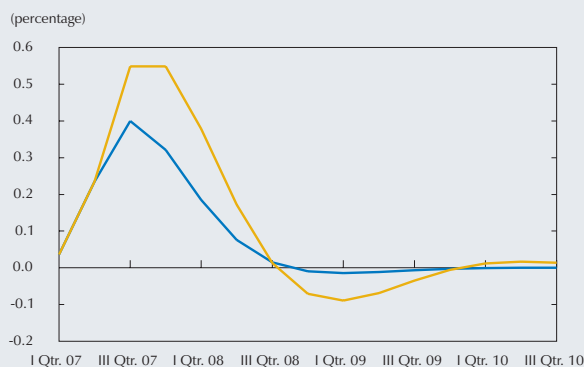
According to the results of the exercise and pursuant to rule (4), the central bank should react more to inflation and less to changes in the output gap. In addition, the interest rate paths derived from this exercise with the two rules are similar to the one shown in Graph B1 for the rule in (3).

GRAPH B1

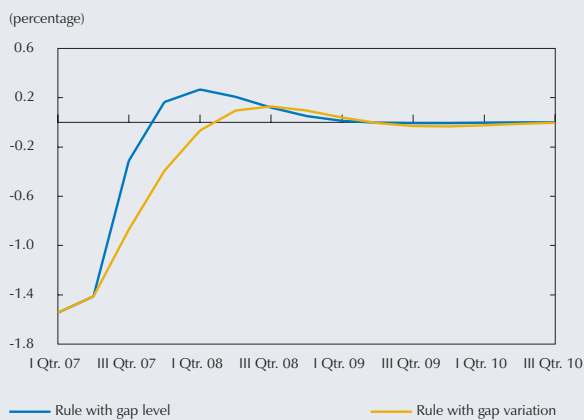
OUTPUT GAP



INFLATION GAP



NOMINAL INTEREST RATE GAP



Source: Banco de la República's calculations.

tion is positive, while the one for the nominal interest rate gap is negative. Given these initial conditions, the forecast based on the model defined in (1) and (2) can be expected to show interest rate hikes under both rules.

The results of the forecast exercise are shown in Graph B1. The blue line represents the inflation, output and interest rate gaps under rule (3). The results for rule (4) are represented by the dotted line. According to a comparison between the two lines, when the central bank follows rule (4), the increase in interest rates is less but more prolonged than with rule (3). Moreover, if the central bank follows rule (4), it would have to raise the interest rate more often.

Similarly, when the central bank follows rule (4), the decline in the output gap is less and remains outside its equilibrium level during a greater number of periods. This rule requires a larger drop in product from the potential level before returning to its long-term level. Finally, when the central bank follows rule (4), the difference in inflation with respect to the target increases to a greater degree, inflation begins to decline one period later, and more periods are necessary to reach long-term equilibrium.

In short, when the central bank follows an interest-rate fixing rule that responds to variations in the output gap, instead of a rule that responds to the output gap level, deviations of inflation, output and the nominal interest rate with respect to their long-term values are larger. Likewise, when a rule that responds to variations in the output gap is followed, the return to long-term levels is more prolonged and requires more sacrifices in terms of output than when the central bank follows a rule that responds to the level of the gap.

## MACROECONOMIC FORECASTS BY DOMESTIC AND FOREIGN ANALYSTS

The following are the latest forecasts by domestic and foreign analysts concerning the main variables of the Colombian economy for 2007 and 2008. When consulted, the contributing analysts had access to data at June 2007.

### I. Projections for 2007

The forecasts for 2007 are shown in Table A1. On average, the domestic analysts expect 6.1% economic growth, which is 0.6 percentage points (pp) more than the

**TABLE A1**  
**PROJECTIONS FOR 2007**

|                            | Real GDP<br>Growth<br>(%) | CPI<br>Inflation<br>(%) | Nominal<br>exchange rate<br>(end of) | Nominal<br>DTF<br>(%) | Fiscal Deficit<br>(% of GDP) | Unemployment<br>Rate<br>(% for<br>13 cities) |
|----------------------------|---------------------------|-------------------------|--------------------------------------|-----------------------|------------------------------|--|
| <b>Domestic Analysts</b>   |                           |                         |                                      |                       |                              |  |
| Alianza Valores            | 5.2                       | 5.1                     | 1,969                                | 7.6                   | 0.5                          | 11.5   |
| Anif                       | 6.0                       | 5.3                     | n.a.                                 | n.a.                  | 0.9                          | n.a.   |
| Banco de Bogotá            | 6.3                       | 5.4                     | 2,050                                | 9.1                   | 0.5                          | 10.4   |
| Banco Santander            | 6.4                       | 5.0                     | 2,160                                | 8.1                   | 0.9                          | 11.4   |
| Bancolombia-Suvalor        | 6.6                       | 4.9                     | 2,058                                | 8.8                   | 0.3                          | 10.8   |
| BBVA Ganadero              | 5.9                       | 5.1                     | 2,062                                | 9.3                   | 0.9                          | 11.0   |
| Corficolombiana-Corfivalle | 5.9                       | 4.5                     | 2,330                                | 9.2                   | n.a.                         | n.a.   |
| Corredores Asociados       | 5.5                       | 4.8                     | 1,800                                | 8.2                   | 1.0                          | 10.8   |
| Correval                   | 6.4                       | 5.2                     | 2,100                                | 8.8                   | 0.8                          | 11.5   |
| Fedesarrollo               | 5.9                       | 5.0                     | 2,050                                | 9.0                   | 0.9                          | 11.4   |
| Porvenir AFP               | 6.5                       | 5.5                     | n.a.                                 | n.a.                  | 1.3                          | n.a.   |
| Promotora Bursátil         | 6.7                       | 5.1                     | 1,883                                | 8.9                   | 1.3                          | 10.2   |
| Serfinco                   | 6.0                       | 5.1                     | 2,300                                | 9.0                   | 1.8                          | 10.0   |
| Skandia AFP                | 6.2                       | 5.0                     | 2,050                                | 8.8                   | 0.9                          | n.a.   |
| <b>Average</b>             | <b>6.1</b>                | <b>5.1</b>              | <b>2,068</b>                         | <b>8.7</b>            | <b>0.8</b>                   | <b>10.9</b>                                  |
| <b>Foreign Analysts</b>    |                           |                         |                                      |                       |                              |  |
| Bear Stearns               | 6.9                       | 4.9                     | 1,950                                | 9.0                   | 0.0                          | 9.5  |
| Citi Bank                  | 6.7                       | 5.0                     | 2,100                                | 8.7                   | 1.3                          | 10.0   |
| CS First Boston            | 6.9                       | 5.1                     | 1,950                                | n.a.                  | 0.0                          | 9.5  |
| Deutsche Bank              | 5.7                       | 5.5                     | 2,287                                | 8.4                   | 0.0                          | 10.7   |
| Goldman Sachs              | 6.0                       | 5.0                     | 2,000                                | 8.3                   | 0.8                          | n.a.   |
| IDEA Global                | 5.9                       | 4.5                     | 2,061                                | n.a.                  | 1.3                          | 11.1   |
| J.P. Morgan Chase          | 6.8                       | 5.7                     | 2,000                                | 9.3                   | 0.9                          | 12.0   |
| <b>Average</b>             | <b>6.4</b>                | <b>5.1</b>              | <b>2,050</b>                         | <b>8.7</b>            | <b>0.6</b>                   | <b>10.5</b>                                  |

n.a. not available.

Source: *Dinero* magazine and Banco de la República, based on data provided electronically.



forecast last quarter. The foreign analysts anticipate 6.4% (68 pp more). As in the last report, expectations have improved, reflecting the positive situation described by the economic indicators for supply and demand, the strong increase in credit, and the fact that Fedesarrollo's consumer confidence index remains near an all-time high.

The domestic analysts raised their inflation forecast by 36 bp, while the foreign analysts increased theirs by 48 bp. This placed both forecasts at 5.1%, which is above the target range for the year (3.5% to 4.5%).

As has been the case for the last two years, the forecasts for the exchange rate (pesos per dollar) were revised downward once again. The domestic analysts lowered their forecast by Col\$123, on average (to Col\$2,068); the foreign analysis reduced theirs by Col\$242 (to Col\$2,050). In other words, the domestic analysts expect 8.3% appreciation in foreign exchange by the end of the year; the foreign analysts expect 9.3%. Maximum expected depreciation is 3.9% (Col\$2,330); the minimum is -24.4% (Col\$1,800 per dollar). These forecasts reflect the huge uncertainty in the market about how this variable will develop.

With respect to interest on term deposits (DTF in Spanish), the domestic analysts raised their forecast by 60 bp and expect 8.7% by the end of the year. This implies an increase of nearly 30 bp above the current level during the rest of the year. On average, they expect the consolidated fiscal deficit to be around 0.7% of GDP, which is slightly below the latest projection by the Ministry of Finance and Public Credit (0.9% for the consolidated public sector). The forecast for unemployment in 13 cities is 10.7% (100 bp less than what analysts anticipated last quarter). This might suggest they do not expect the increases in DANE measurements during past quarters to continue in the future.

## **II. Projections for 2008**

Both the domestic and foreign analysts anticipate 5.1% growth in 2008 (Table A2). The average expectation for inflation is 4.1%, which exceeds the target range (3% to 4%) announced by the BDBR for next year. As to the exchange rate, the domestic analysts anticipate 6.9% annual devaluation (compared to the forecasts for the end of 2007); the foreign analysts expect 4.8%. This would place the representative market rate (TRM in Spanish) at Col\$2,220 by the end of 2008, according to the domestic analysts, and at Col\$2,154 according to the foreign analysts.

**TABLE A2**  
**PROJECTIONS FOR 2008**

|                            | <b>Real GDP<br/>Growth<br/>(%)</b> | <b>CPI<br/>Inflation<br/>(%)</b> | <b>Nominal<br/>Exchange Rate<br/>(end of)</b> |
|----------------------------|------------------------------------|----------------------------------|---|
| <b>Analistas locales</b>   |                                    |                                  |   |
| Alianza Valores            | 4.3                                | 4.2                              | 2,082   |
| Anif                       | 5.3                                | 4.3                              | n.a.  |
| Banco de Bogotá            | 5.2                                | 4.3                              | 2,200   |
| Banco Santander            | 5.2                                | 4.5                              | 2,290   |
| Bancolombia-Suvalor        | 5.3                                | 3.9                              | 2,180   |
| BBVA Ganadero              | 4.8                                | 3.8                              | 2,168   |
| Corficolombiana-Corfivalle | 5.5                                | 4.2                              | 2,390   |
| Corredores Asociados       | 5.0                                | 4.0                              | 2,050   |
| Correval                   | n.a.                               | n.a.                             | n.a.  |
| Fedesarrollo               | 5.4                                | 4.5                              | 2,155   |
| Porvenir AFP               | 5.5                                | 4.2                              | n.a.  |
| Promotora Bursátil         | 5.3                                | 4.3                              | 2,260   |
| Serfinco                   | 5.0                                | 4.0                              | 2,450   |
| Skandia AFP                | 5.0                                | 4.2                              | 2,194   |
| <b>Average</b>             | <b>5.1</b>                         | <b>4.2</b>                       | <b>2,220</b>                                  |
| <b>Analistas externos</b>  |                                    |                                  |   |
| Bear Stearns               | 5.5                                | 4.2                              | 2,000   |
| Citi Bank                  | 5.3                                | 3.8                              | 2,300   |
| CS First Boston            | 5.5                                | 4.0                              | 2,000   |
| Deutsche Bank              | 5.0                                | 3.6                              | 2,439   |
| Goldman Sachs              | 4.5                                | 4.5                              | 2,120   |
| IDEA Global                | 4.7                                | 4.2                              | 2,142   |
| J.P. Morgan Chase          | 5.5                                | 4.4                              | 2,075   |
| <b>Average</b>             | <b>5.1</b>                         | <b>4.1</b>                       | <b>2,154</b>                                  |

n.a. not available

Source: *Dinero* magazine and Banco de la República, based on data provided electronically.