



# INFLATION REPORT

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S E P T E M B E R 2 0 0 5

BANCO DE LA REPÚBLICA  
(CENTRAL BANK OF COLOMBIA)

BOGOTÁ, D.C., COLOMBIA

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## INFLATION AT SEPTEMBER AND THE OUTLOOK

- Consumer inflation during the year to September was coherent with the goal set for 2005 by the Board of Directors of Banco de la República (BDBR). The annual variation in prices at September was 5%, which is the middle of the target range (between 4.5% and 5.5%). The various core inflation indicators were between 4.0% and 4.6%.
- The third quarter saw a surge in prices for several major items in the family basket of goods and services. For example, the annual change in food prices went from 6.1% in June to 6.4% in September. Public utility rates and rental prices increased from respective annual rates of 7.9% and 4.0% to 8.8% and 4.3% during the same period.
- Nevertheless, this change in prices still appears to be isolated and limited. In the case of food inflation, the models predict a decline in the first quarter of 2006. On the other hand, the long-term upward trend in annual inflation in the price of rentals was curbed in August 2004 and is now slightly below 4.5%. As to public utilities, the rise in annual inflation is associated primarily with water rates. This is explained by the basis for comparison, due to the reductions that took place in July and August 2004.
- External conditions continued to be favorable for the Colombian economy. The country's trading partners experienced a good rate of growth, terms of trade remained high, and the country-risk premium stayed at a low level.
- In this context, the year to date has seen the consolidation of an economic growth cycle in Colombia that is fueled by domestic demand, which rose by 5.9% on average in the last ten quarters. Gross domestic product (GDP) increased by 4.6% during the first half of 2005 (4.2% on average in the last ten quarters). The strength of investments warrants special mention. They accounted for 22% of GDP in 2005, which is the highest rate since 1995 and exceeds the historic average (18%).
- The course of inflation in the next four to eight quarters will be determined primarily by the trend in the exchange rate and the output gap, expectations of inflation, and the presence or absence of inflationary pressures generated by costs and wages.

There is a great deal of uncertainty surrounding these variables, either because they are unobservable (e.g. the output gap and expectations of inflation), because available information is piecemeal (e.g. costs and wages), or because they depend on an external situation that is changing and difficult to predict. Therefore, trying to determine how these variables will behave in the future and considering alternative scenarios is fundamental to setting policy and identifying risks.

- The external outlook for 2006 suggests better terms of trade than those predicted in earlier reports. No significant reductions in capital flows to the emerging economies and Latin America in particular are anticipated, despite the gradual rise in interest rates ruled by the U.S. Federal Reserve Bank (Fed). These circumstances should be reflected less pressure towards depreciation of the average exchange rate during in 2006, as opposed to the forecast in earlier reports.
- The Colombian economy should continue to grow during 2006 at the same rate as in 2005. This prediction is based on several circumstances. One is the fact that real interest rates have been low with respect to their historic averages. Another is the favorable outlook for the external context and the increase in employment, investment and productivity.
- Although there is still a great deal of uncertainty about the actual size of the output gap and how fast it is closing, an analysis by the BR technical team, which is included in this report, points to evidence that the gap is narrower than what was estimated in earlier reports.
- Therefore, the main risk to inflation in the future would come from possible demand-pull pressure. However, this could be mitigated by several factors; namely, a healthy growth in productivity and a sizeable increase in the rate of investment, especially in machinery and equipment. Moreover, the information that is available shows no evidence of inflationary pressures originating with the trend in costs or wages.
- The expectations of inflation at one year continued to decline and are slightly below the top of the 2006 target range for inflation set by the BDBR (between 3% and 5%). However, temporary food supply shocks (or more demand) have increased the risk of inflationary expectations being influenced at times when wages and various price agreements are being negotiated for the economy. This highlights the importance of understanding that the negative shocks to inflation anticipated for the end of the year are temporary and inflation should continue to fall in the near future.
- In point of fact, the new short-term forecast for consumer inflation at December 2005 is 5.1%. This is more than what was anticipated in the last report (4.7%) and is explained by an increase in the food inflation forecast (from 5.4% to 6.8%), plus a higher inflation forecast for non-tradables (up from 4.5% to 4.8%). Total inflation is expected to decline to 4.5% by March 2006, owing to a quick decline in food inflation. However, it is important to emphasize the high degree of uncertainty associated with the food forecasts, even in the short term.

- At its meeting on 28 October 2005, the BDBR took these factors into account and agreed to leave the interest rate on expansion repos at 6%.
- Furthermore, based on an assessment of the exchange situation and the forecasts for the balance of payments, the BDBR decided to continue its discretionary intervention in the exchange market.

Board of Directors  
Banco de la República





# INFLATION REPORT

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# I. THE ECONOMIC SITUATION AT SEPTEMBER 2005

*The Colombian economy is still in a growth phase and inflation has been coherent with the target for 2005.*

The world economy continued to grow at a brisk pace during the third quarter, although higher oil prices in recent months have elevated the risk of a possible slowdown in growth and a build-up in inflationary pressures. The external situation remained favorable for the emerging economies. The Latin American economies, in particular, continued to be propelled by growing external demand and higher prices for certain commodities. These same factors, coupled with an influx of foreign capital, upheld the tendency towards exchange rate appreciation in various countries throughout the region.

In this context, the Colombian economy continued to expand and the pace of economic activity accelerated. Figures released by the National Bureau of Statistics (DANE) on GDP growth in the second quarter surpassed even the most optimistic expectations. Private domestic demand continues to fuel the Colombian economy, thanks to gross fixed capital formation and household consumption.

According to several technical assessments, the output gap is narrower than the estimates published in earlier reports. However, there also is evidence on the side of increased potential and non-inflationary GDP growth, which suggests the gap might still be negative, despite more momentum in the economy.

The outcome for inflation at September was consistent with the prediction in the last report. Food inflation was the only exception; it exceeded the forecast. However, the various core inflation indicators do not suggest the presence of demand-pull inflationary pressures.

*In accordance with the predictions in earlier reports, the world economy continued to grow at a favorable pace during the year to date.*

## A. THE EXTERNAL CONTEXT AND THE EXCHANGE RATE

In accordance with the predictions in earlier reports, the world economy continued to grow at a favorable pace during the year to date, although less

*Although the figures are good, the situation for the world economy is not as clear as it was a few months back.*

so than in 2004. As happened the year before, it was mainly the U.S. and the Chinese economies that fueled this growth, although Japan and the Euro zone made more of a contribution. Yet, the unexpected jump in oil prices during September raised the risks facing world growth and inflation in the medium and long term.

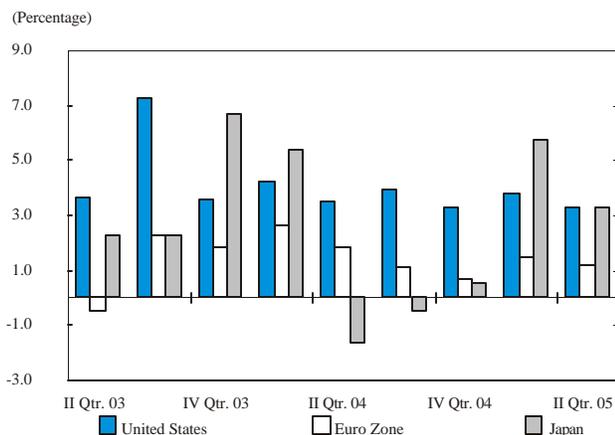
As far as the U.S. economy is concerned, the most notable event in recent months was associated with the negative supply shock experienced as a result of the hurricanes that hit the southern part of the country. The U.S. economy was expanding at a good pace prior to the hurricanes. Growth was 3.3% in the second quarter (annualized quarterly), slightly down from the first-quarter rate (3.8%). The expansion of the U.S. economy continued to be supported by domestic demand, which was sustained primarily by high home prices and low interest rates. Exports also contributed to this growth, but less so (Graph 1).

The latest indicators denote a slowdown in growth, probably as a result of the natural disasters mentioned earlier. The consumer confidence index was 86.6 in September (after climbing to 106.2 in June). The annual increase in industrial production was 2% (as opposed to 3.7% in June) and employment was down by 8,000 jobs (following an increase of 146,000 in June). Even so, third-quarter growth was 3.8% (annualized quarterly). This was more than expected and can be attributed to the force of consumption.

In Japan, the economy appears to be back on track and moving towards more sustainable growth. GDP growth in the second quarter was 3.3% (annualized quarter). This is less of an increase than in the first quarter (5.7%), but better than the recurrent negative figures exhibited in earlier periods. Domestic demand is behind this new recovery phase, but particularly private investment. This growth also has allowed for a certain amount of job-market recovery, which has given added stability to the new cycle (Graph 1).

**GRAPH 1**

**ANNUALIZED QUARTERLY GDP GROWTH IN THE UNITED STATES, THE EURO ZONE AND JAPAN**



Source: Datastream.

The momentum in the Euro zone was favorable as well. However, unlike the United States and Japan, the pace of economic growth was far more moderate. The economy grew by 1.2% in the second quarter (annualized quarterly), down slightly from the rate observed in the first quarter (1.5%), and was propelled mainly by the rise in investment. Although the Euro zone's monetary authorities maintained a lax monetary policy, with

low interest rates to encourage spending, consumption showed no improvement. Apparently, this is due, in part, to the negative impact the hike in fuel prices has had on real consumer income (Graph 1).

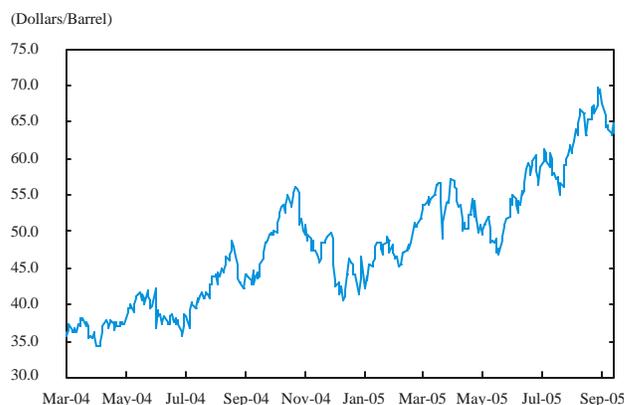
Although the figures are good, the situation for the world economy is not as clear as it was a few months back. The additional rise in oil prices in recent months, due to damage inflicted on oil facilities during the hurricane season, has heightened the risk of possibly less growth and more inflationary pressures at the global level. The price of oil was up to US\$70 a barrel in September. This is a historic high (in nominal terms). That same month, the price of gasoline in the United States was above US\$3.00 per gallon, following an increase of 65% during the last week of August. However, prices have tended to decline in recent weeks (Graph 2).

Several developed economies already have begun to feel the effect of higher oil prices on inflation. This is particularly true in the United States, where the last few months saw a sharp rise in total consumer inflation (from 2.5% in June to 4.7% in September). Even so, this pressure has yet to be transferred to core inflation, which dropped slightly. This is according to the latest figures (from 2.1% to 2.0% between June and September) (Graph 3). On the other hand, labor costs have increased, although slowly (2.5% annualized quarterly, for the second quarter), while productivity has continued to grow at pace slightly above the historic average for the last 25 years, but less than the rate observed in recent periods (Graph 4).

Higher oil prices and increased labor costs are regarded as evidence of more risk to inflation. Since July, the Fed has continued a policy of measured increases in its reference rate; that is, adjustments of 25 basis points (bp) per month (September and October) to 3.75% (Graph 5). The markets had

OIL AND GASOLINE PRICES

OIL (WTI) - NEW YORK STOCK EXCHANGE

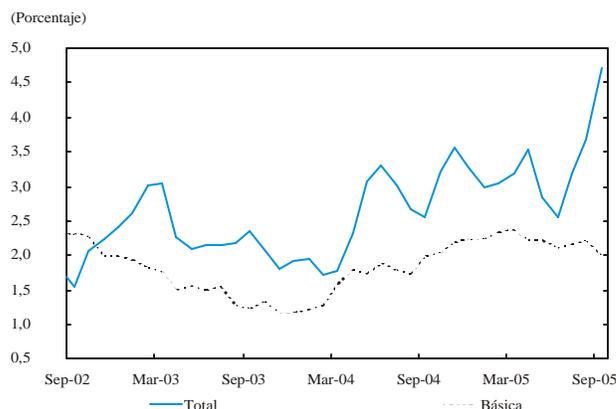


REGULAR GASOLINE



Source: Bloomberg and Datastream.

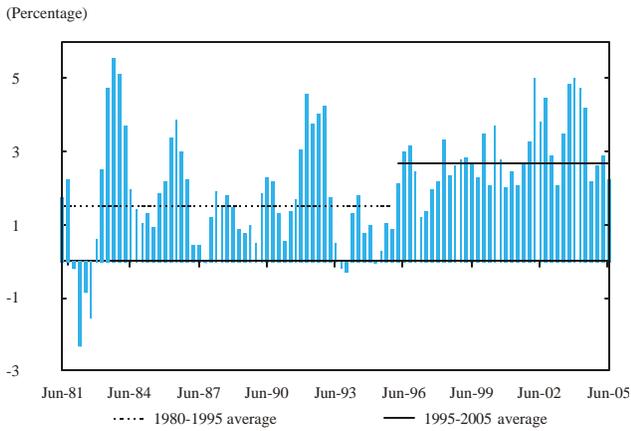
ANNUAL INFLATION IN THE UNITED STATES



Source: Datastream.

GRAPH 4

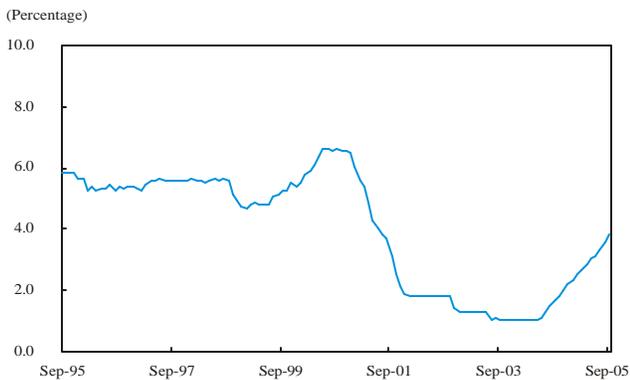
ANNUAL GROWTH IN U.S. PRODUCTIVITY



Source: Bureau of Labor Statistics.

GRAPH 5

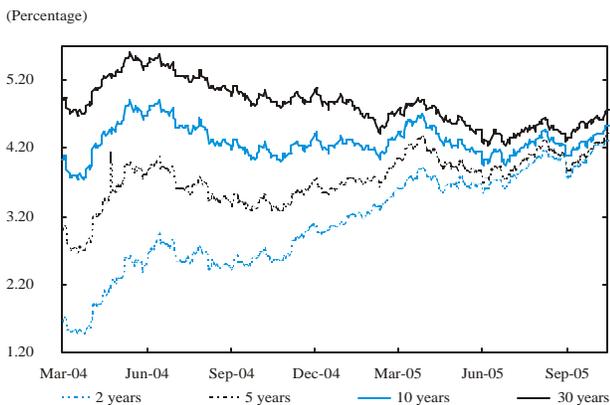
FED INTEREST RATE CHANGES



Source: Datastream.

GRAPH 6

INTEREST ON U.S. TREASURY BONDS



Source: Datastream.

speculated the Fed might move away from its rate adjustment policy, due to the negative demand shock in September. However, concern about eventual inflationary pressure in the future seems to be the top priority.

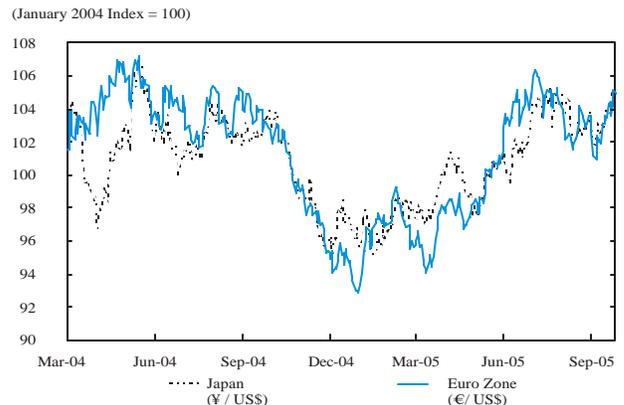
The decision by the Fed and a possible rise in inflationary expectations pushed long-term interest rates up, after more than a year of reductions. In early September, U.S. Treasury Bond rates were up by 50 bp from their lowest level and this trend continued until early October (Graph 6).

The continued strength of the U.S. economy and higher interest rates in the United States with respect to the Euro Zone and Japan continued to provoke devaluation of the euro and the yen (Graph 7). This situation has not made it easy to correct the current account deficit in the United States. However, the U.S. trade balance has been somewhat stable throughout the year, largely because of the rise in exports (Graph 8).

The situation confronting the developed economies continued to be favorable for the emerging economies. The Chinese economy is growing more than expected (9.4% in the third

GRAPH 7

NOMINAL EXCHANGE RATE IN JAPAN AND THE EURO ZONE



Source: Datastream.

quarter) and the Latin American economies remained stimulated by a growing external demand and higher prices for certain commodities, mainly oil.

The economic outlook for several of Colombia's major trading partners continued to improve. The most relevant case in point is Venezuela, where second-quarter growth was high (11.2%), largely because of soaring oil prices. The Ecuadorian economy is an exception in this respect, having grown far less than anticipated. Due to a halt in oil production (because of a strike) and a recent increase in political uncertainty, its second-quarter growth was low (2.9%).

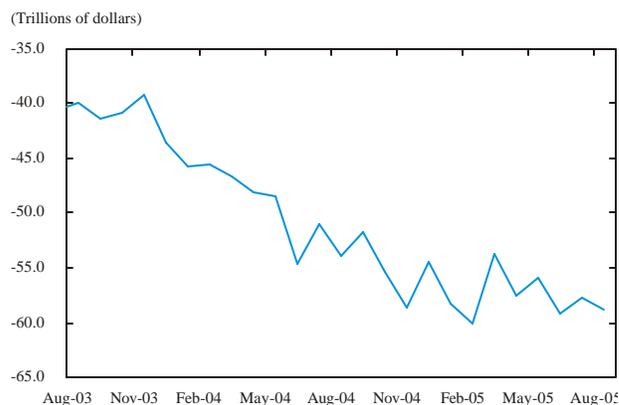
The strong growth witnessed in the Latin American countries, coupled with progress towards structural reform and a reduction or change in the make-up of the public debt in several of these countries, remained a source of attraction for foreign capital. This situation continued to propel the demand for borrowing by the region's economies, allowing for additional reductions in country-risk premiums, at least until mid-September (Graph 9). Similarly, the influx of capital and the rise in income from exports maintained the tendency towards exchange rate appreciation in various countries (Graph 10).

## B. THE INTERNAL SITUATION

### 1. Growth in the First Quarter

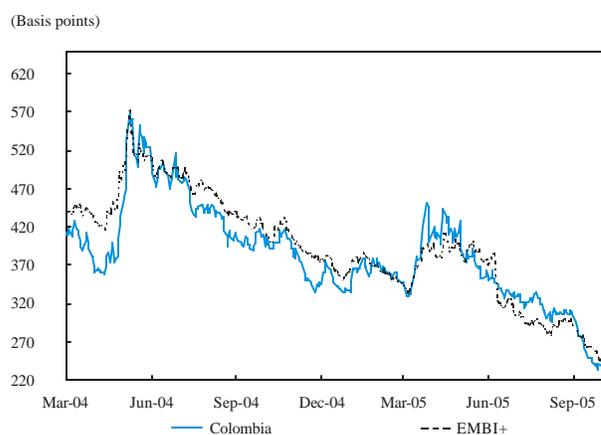
According to the latest official figures on economic growth, the Colombian economy stayed in an expansionary phase during the second quarter of 2005 and the pace of economic activity tended to accelerate. This is signaled by 5.3% annual growth, as measured by DANE for that period, which was much higher than the increase reported for the first quarter of 2005 (3.9%) (Graph 11).

UNITED STATES TRADE BALANCE



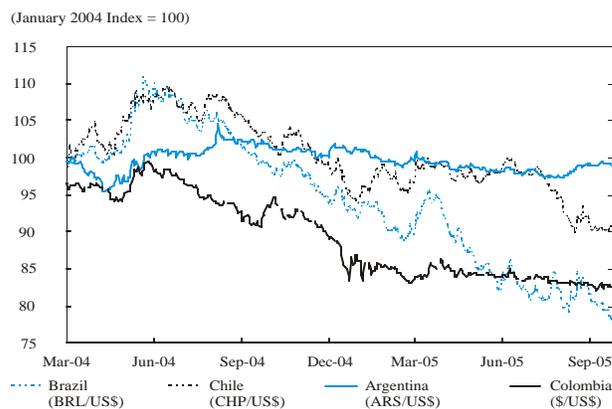
Source: U.S. Department of Commerce.

COUNTRY-RISK PREMIUM  
EMBI + LATIN AMERICAN COUNTRIES



Source: Bloomberg.

EXCHANGE RATES OF SEVERAL LATIN AMERICAN CURRENCIES AGAINST THE DOLLAR



Source: Datastream.

*The Colombian economy stayed in an expansionary phase during the second quarter of 2005 and the pace of economic activity tended to accelerate.*

Part of the acceleration in growth can be attributed to more working days in April 2005 compared to the same month in 2004 (since Easter Week was celebrated in March). Yet, even without this factor, there was an important increase in the pace of growth, which extended to most production sectors and to a good portion of the spending components.

Since January 2005, DANE has upwardly revised historic growth figures on various occasions. In the last of these revisions, the growth rate for the first half of 2005 was increased from 3.6% to 3.9%, and from 4.0% to 4.3% for 2003.

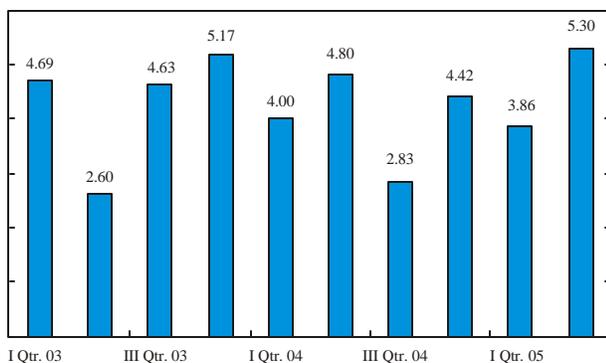
Although the forecasts developed by Banco de la República and by many analysts envisaged acceleration in the economy during the second quarter of 2005, DANE measurements surpassed even the most optimistic expectations. In the case of the Bank's forecast, most of the error in terms of supply is explained by underestimation of the GDP for social, personal and community services and the GDP for commerce. As to spending, the forecast error centered on underestimates of government and household consumption.

The latest figures released by DANE ratify the growth trends identified in the previous report. At the second quarter, the Colombian economy continued to be bolstered by private domestic demand, mainly gross fixed capital formation (without civil works) and household consumption (Table 1). On this occasion,

GRAPH 11

**REAL ANNUAL GDP GROWTH**

(Percentage)



Source: DANE. Calculations by Banco de la República.

TABLE 1

**GDP PER TYPE OF EXPENSE**

	2004	I Qtr. 2005	II Qtr. 2005		I Half 2005	
			Percentage of Growth	Contribution of Growth	Percentage of Growth	Contribution to Growth
<b>Final Consumption</b>	<b>3.9</b>	<b>3.6</b>	<b>6.0</b>	<b>4.9</b>	<b>4.8</b>	<b>4.0</b>
Household	4.1	3.7	5.3	3.3	4.5	2.8
Government	3.3	3.4	8.0	1.6	5.7	1.2
<b>Gross Capital Formation</b>	<b>12.6</b>	<b>16.0</b>	<b>24.7</b>	<b>4.5</b>	<b>20.4</b>	<b>3.7</b>
Gross Fixed Capital Formation (GFCF)	13.3	17.5	22.0	3.6	19.8	3.2
GFCF without Civil Works	22.5	12.8	25.3	3.4	19.0	2.6
Civil Works	(19.1)	46.9	5.4	0.1	24.0	0.6
<b>Domestic Demand</b>	<b>5.4</b>	<b>5.8</b>	<b>9.4</b>	<b>9.4</b>	<b>7.6</b>	<b>7.7</b>
<b>Total Exports</b>	<b>9.9</b>	<b>13.0</b>	<b>7.8</b>	<b>1.5</b>	<b>10.3</b>	<b>1.9</b>
<b>Total Imports</b>	<b>17.3</b>	<b>22.7</b>	<b>28.5</b>	<b>5.6</b>	<b>25.7</b>	<b>5.0</b>
<b>Gross Domestic Product</b>	<b>4.0</b>	<b>3.9</b>	<b>5.3</b>	<b>5.3</b>	<b>4.6</b>	<b>4.6</b>

Source: DANE. Calculations by Banco de la República.



as opposed to previous quarters, the increase in public consumption also played an important role.

In addition to showing 5.3% growth in household consumption in the second quarter, DANE upwardly revised the first-quarter figure from 3.2% to 3.7%. This item has been expected to take off for several months, given the broad internal liquidity reflected in real interest rates that are below historic averages, as well as better employment conditions and the steady rise in consumer confidence indicators, among other positive factors.

The good momentum in household consumption during the second quarter was observed for all items, but particularly for the consumption of services and non-durable goods. This contrasts with the situation in 2004 and the first quarter of 2005 when durables and semi-durables were mainly what fueled the growth in household consumption.

Real government consumption rose by 8.0% during the second quarter, which is the highest increase for this item since the fourth quarter of 1999. According to DANE, local and regional administrations were responsible for most of the rise (as was central government consumption, but less so). These administrations made 19% more nominal outlays than in the second quarter of 2004. This can be attributed to an upward adjustment, given the low levels in 2004 and the resources available to regional government administrations.

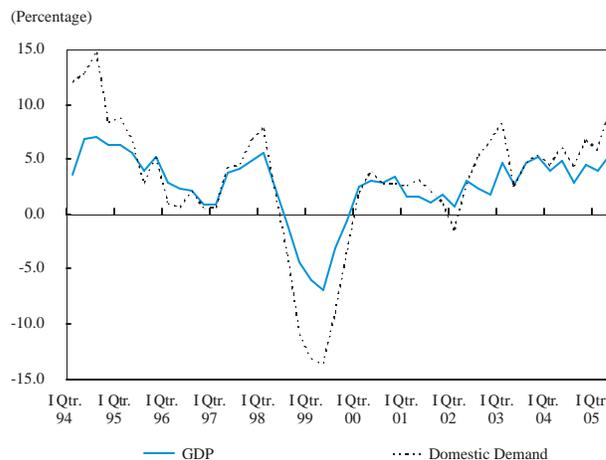
Investment was still vigorous by the second quarter. The annual increase in gross fixed capital formation (GFCF) was 22%, thus completing eight consecutive quarters with two-digit growth rates and a tendency towards acceleration. The rise in investment in machinery and equipment (49.5%) and in transport equipment (29.7%) was a high point and reflects much of the growth in imports of capital goods (an annual rate of 63% in dollars by the second quarter). GFCF in construction and buildings was up 8.4% and regained nearly all the ground lost in the first quarter (-2.3%), while GFCF in civil works saw an increase of 5.4%. This was much less than expected, considering the sharp recovery during the first quarter of the year and the fact that its level is well below the decline registered the year before.

In short, domestic demand continued to be more dynamic than GDP (Graph 12). This was evident in the second-quarter figures, which showed 9.4% annual growth, a rate not seen mid-1994. An approximate breakdown of demand according to origin shows the private component (household consumption and GFCF without civil works) rose at an annual rate of 9.9%, while the public component

*The Colombian economy continued to be bolstered by private domestic demand, mainly gross fixed capital formation and household consumption.*

GRAPH 12

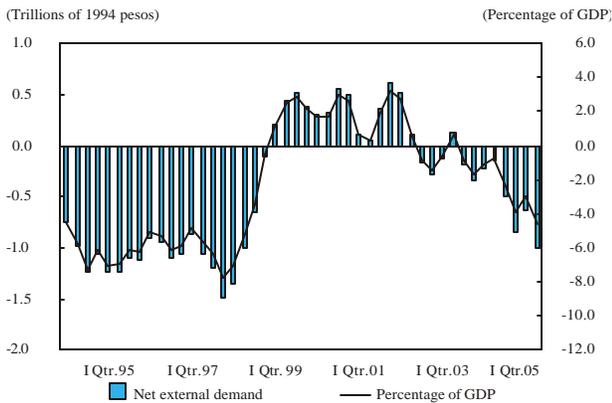
ANNUAL GROWTH IN REAL DOMESTIC DEMAND



Source: DANE. Calculations by Banco de la República.

**GRAPH 13**

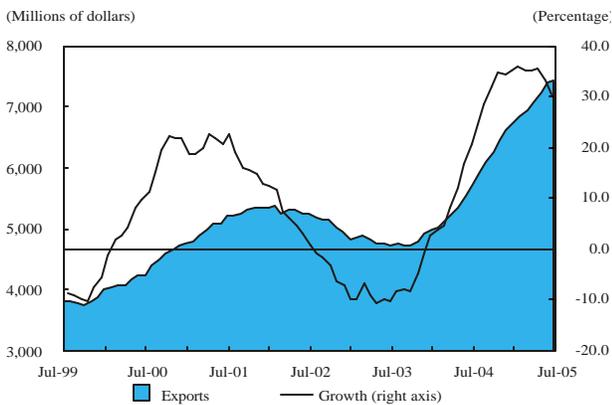
**NET EXTERNAL DEMAND - NATIONAL ACCOUNTS**



Source: DANE. Calculations by Banco de la República.

**GRAPH 14**

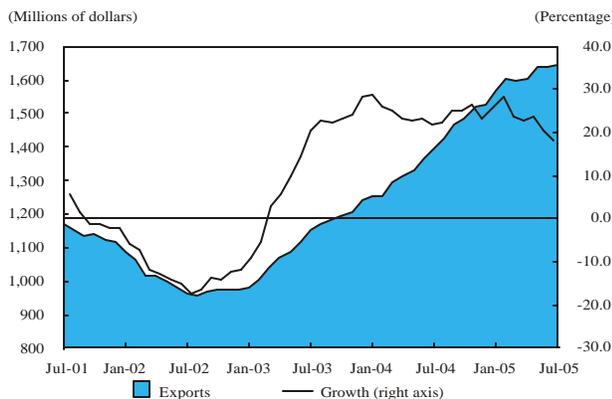
**NON-TRADITIONAL INDUSTRIAL EXPORTS (ACCUMULATED IN 12 MONTHS)**



Source: DANE. Calculations by Banco de la República.

**GRAPH 15**

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



Source: DANE. Calculations by Banco de la República.

(government consumption and GFCF with civil works) was up by 7.7%.

Concurrent with the acceleration in domestic demand, net external demand (exports minus imports in constant pesos) remained in the red during the second quarter and even more so (Graph 13). This occurred along with a major rise in exports (7.8% in constant pesos). However, it was insufficient to offset the sharp increase in imports, which accelerated in real terms compared to the first quarter of the year (from 22.7% to 28.5%).

The figures at July 2005 show the increase in external demand, particularly in Venezuela and other destinations in the region, continued to add to the growth of non-traditional exports (Graph 14). Even so, other markets for Colombian industrial goods, such as the United States and Ecuador, appear to be at a standstill (Graph 15), possibly because of more international competition. Sectors such as textiles and apparel, leather and chemical substances (industrial and agricultural input) would be the ones primarily affected by this competition. They reported a slowdown in their export activity during the course of the year to July. The diagnosis is less clear for other branches of industry that face similar conditions, such as tobacco, petroleum by-products, glass, ceramic tile and porcelain products.

However, industrial imports as a whole displayed good performance at July. In terms of sectors, foreign sales of transport equipment and material, iron and steel products, plastic products, non-ferrous metal products, furniture and accessories, among others, were the most prominent.

As to traditional exports (Graph 16), relatively high prices continued to be the chief factor behind their surge during the year to July. Oil is a case in point and is the sector where production volume remained unchanged. However, oil

exports rose in value due to currently high prices. The increases in volume have been particularly important in the case of coffee and coal, although July saw a drop in the amount of coal exported from Colombia.

The figures at August show imports continued to grow at an annual rate of almost 28% (the cumulative figure for 12 months). In general, performance with respect to all types of goods and different destinations has been strong. Imports of capital goods increased at an annual rate of 39%, particularly those for construction (45%) and industry (39%). Consumer durables are another dynamic item, registering a 32.8% rise in imports accumulated in the 12 months up to August (Graph 17).

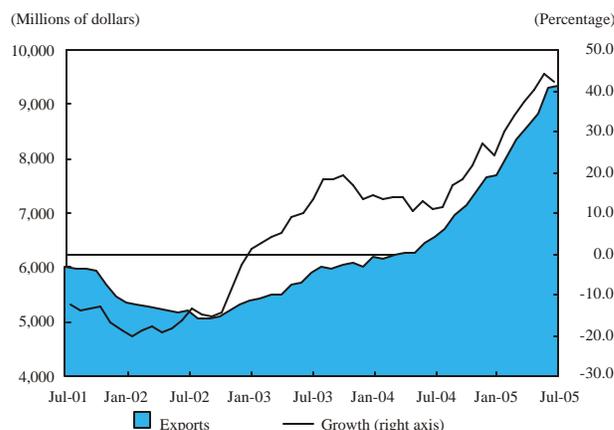
Two factors are behind the surge in imports. One is the sharp growth in domestic demand, particularly for investment (in industrial machinery and transport equipment) and household consumption. The other factor is appreciation of the exchange rate. There is no doubt that part of the increase in foreign purchases clearly is due to a lower exchange rate,<sup>1</sup> which made imported raw materials and consumer durables less expensive.

## 2. Growth in the Tradable Sectors

Gross domestic product in the tradable sectors (agriculture/livestock, industry and mining, among others) experienced a slowdown in recent quarters, registering a rate of growth well below the average for the economy as a whole. During the second quarter in particular annual growth in this aggregate was estimated at 2.5%, down from the first quarter of the year (3.1%) and from the rate for all of 2004 (3.3%). (Graph 18).

<sup>1</sup> In a recent study on Colombia, the ratio of total import elasticities to GDP and the real exchange rate was found to be 3.7 to 1. In other words, imports respond more to an increase in economic activity and less to fluctuations in the real exchange rate. See Hernández, Juan Nicolás (2005), Mimeograph, Banco de la República.

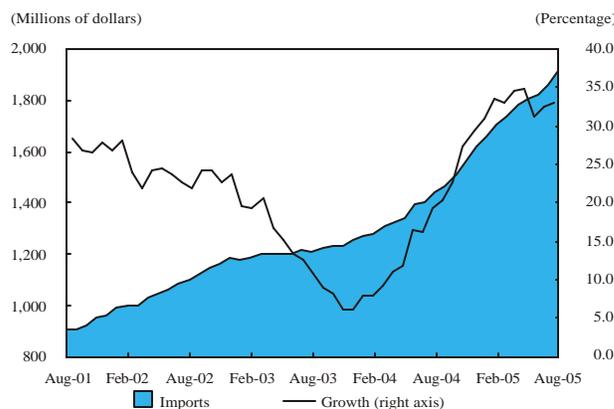
**TRADITIONAL EXPORTS**  
(ACCUMULATED IN 12 MONTHS)



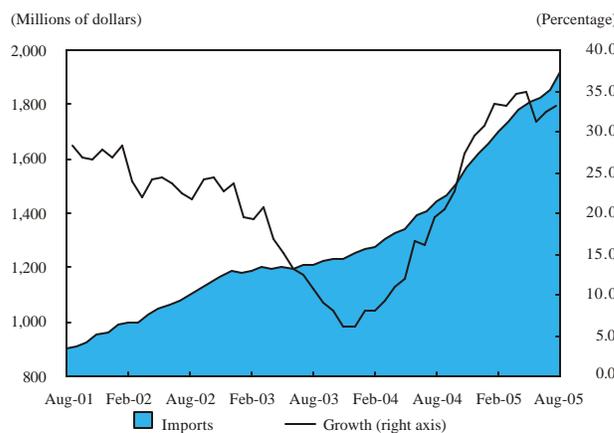
Source: DANE. Calculations by Banco de la República.

**IMPORTS**  
(ACCUMULATED IN 12 MONTHS)

**IMPORTS OF CAPITAL GOODS**



**IMPORTS OF CONSUMER DURABLES**

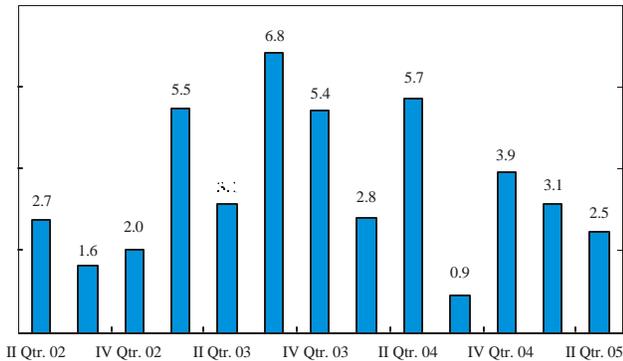


Source: DANE. Calculations by Banco de la República.

**GRAPH 18**

**ANNUAL GROWTH IN REAL TRADABLE GDP**

(Percentage)

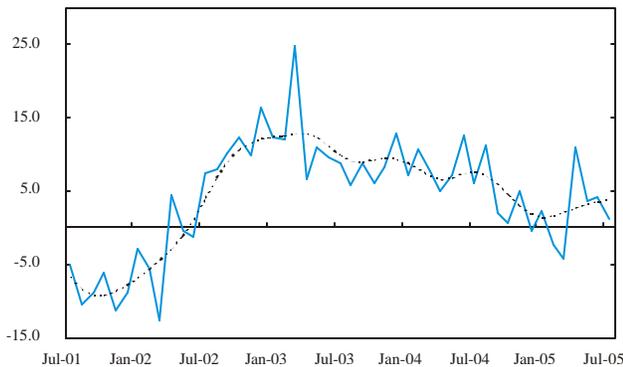


Source: DANE. Calculations by Banco de la República.

**GRAPH 19**

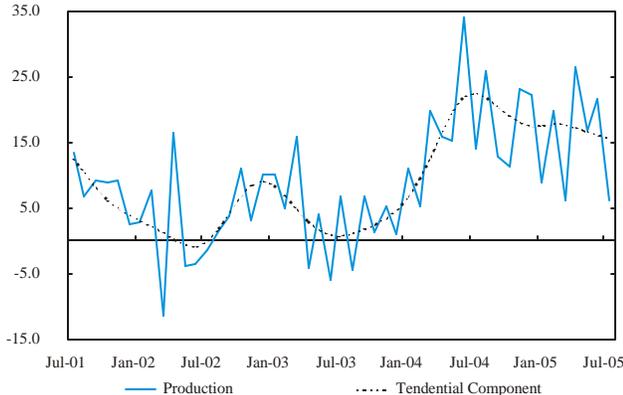
**ANNUAL GROWTH IN INDUSTRIAL PRODUCTION (\*) OF INTERMEDIATE GOODS**

(Percentage)



**OF CAPITAL GOODS**

(Percentage)



(\*) Food, beverages, tobacco, wearing apparel, footwear, printing, petroleum, other chemicals, glass, electrical machinery and furniture.  
Source: DANE. Calculations by Banco de la República.

For some time now, the growth in tradables has been influenced sharply by the trend in the manufacturing sector, which lost a great deal of momentum during the first half of the year. This is according to official figures released by DANE. The increase in manufacturing slowed from 4.7% in 2004 to just 1.9% in the first half of 2005<sup>2</sup>. The other two sectors - agriculture/livestock and mining - have registered better performance this year than in 2004. The agriculture/livestock sector in particular benefited from a good coffee season, which ends in September. Mining has grown as a result of coal production.

Although the extent of industrial growth in the second quarter was significant (4.7%), it is explained largely by the increase in working days (three more) compared to the same period in 2004. This was due to the change in the Easter week calendar. The positive figure for the second quarter offsets the opposite phenomenon in the first quarter of 2005, which was predicted in earlier reports.

In general, the trend in production shows industrial performance has been moderate since mid-2004. Moreover, an analysis by subsectors shows extremely varied performance. An industrial growth assessment based on information about production, job creation, exports and imports shows that, by the end of the second quarter, 11 out of 27 sectors - largely manufacturers of intermediate and capital goods - registered solid growth based on domestic and foreign sales (Graph 19). Several of these branches produce raw materials for construction or finished goods for the building industry (furniture and fixtures, ceramic products, tile and porcelain, non-ferrous minerals, iron and steel). This suggests that some

<sup>2</sup> The trend in industrial growth reported by DANE for 2005 contrasts sharply with the trend reported by the National Association of Industrialists (ANDI). According to ANDI, industry has grown at an annual rate of slightly more than 7% during 2005 (to August) and shows no outright signs of a slowdown.

of the incentive to industry originates with the demand for construction, housing and buildings.

The same study showed 10 sectors with mediocre performance. In several cases, this even implied recent cutbacks in production. These sectors, for the most part, produce finished consumer goods such as food without beverages, tobacco products, wearing apparel, leather goods, footwear, shoe parts, and wood products. This group also includes some producers of raw materials, such as chemical substances (input for the agriculture/livestock and industrial sectors) and other chemical products (generally for household consumption).

In several cases, the loss of momentum in these sectors is associated with the rise in Chinese exports, which may have begun to displace certain products in the domestic market and in certain foreign markets (Box 1). Textiles, wearing apparel, leather goods and footwear are some examples. As a whole, they account for 9.2% of total industrial production in the DANE sample<sup>3</sup>.

Moreover, there is the possibility that real exchange appreciation might have had a negative impact on the rate of production for a number of industrial activities. Box 2 contains the findings of a recent survey contracted by Banco de la República with Fedesarrollo. Fifty-one percent of the industrial companies in the sample claim to have been jeopardized by exchange rate appreciation since late 2003, 28% said the net impact had been positive, and 22% classified it as neutral. The sectors that were affected the most by appreciation would be those producing intermediate and capital goods. Surprisingly, consumer goods industries appear to have been less vulnerable.

There can be problems in measuring industrial activity as well. According to the statistical exercises by DANE (*Bulletin on the Monthly Manufacturing Sample*, August 2005), the estimated value of industrial production is extremely sensitive to the use of different price indexes, particularly to inclusion or exclusion of the producer price index (PPI) for exports as a deflator of industrial production destined for international markets. With the current method, all industrial activity is deflated by the PPI for products produced and consumed domestically.

### **3. Growth in the Non-tradable Sectors**

Most of the momentum in the economy during the second quarter and in the aggregate for the first half of 2005 originated with the non-tradable sectors:

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<sup>3</sup> For a more detailed explanation, see Alonso, G.; Ramírez, J.M. (2005), Mimeograph, Banco de la República.

*Fifty-one percent of the industrial companies in the sample claim to have been jeopardized by the extent of appreciation in the exchange rate.*

*Most of the momentum in the economy during the second quarter and in the aggregate for the first half of 2005 originated with the non-tradable sectors.*

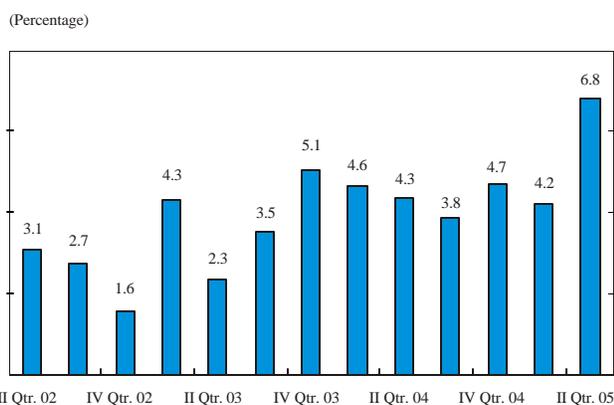
electricity, gas and water; construction; commerce, restaurants and hotels; financial establishments and real estate services; and community, social and personal services (Graph 20). Commerce and government services were conspicuous for their contribution to economic growth (Table 2). Between them, they accounted for almost 43% of the increase in the second quarter (excluding payment of the indirect taxes generated and added to GDP).

Real growth in the commercial sector (10.2% during the second quarter) was the highest it has been since 1994. The same was true of GDP for government services, with an increase (8.0%) not seen since late 1999.

Construction is another key branch, especially the private segment (housing and buildings). It recovered from a slump during the first quarter of 2005 (-2.4%) and increased at a real rate of nearly 9.0% during the second quarter. The momentum

GRAPH 20

ANNUAL REAL GDP GROWTH IN NON-TRADABLES



Source: DANE. Calculations by Banco de la República.

TABLE 2

REAL GDP GROWTH BY SECTORS  
(PERCENTAGE)

	2004	I Qtr. 2005	II Qtr. 2005		I Half 2005	
			Annual of Growth	Contribution to Growth	Annual of Growth	Contribution to Growth
Agriculture, forestry, hunting and fishing	2.5	3.2	2.8	0.4	3.0	0.4
Mining and quarrying	2.2	5.0	1.7	0.1	3.3	0.2
Electricity, gas and water	2.5	0.8	4.2	0.1	2.5	0.1
Manufacturing industry	4.7	(0.9)	4.7	0.7	1.9	0.3
Construction	9.7	10.7	7.8	0.4	9.2	0.5
Buildings	30.4	(2.4)	8.9	0.3	3.0	0.1
Civil works	(19.3)	47.6	5.4	0.1	24.2	0.4
Commerce, repairs, restaurants and hotels	5.9	7.7	10.2	1.1	9.0	1.0
Transport, storage and communication	5.0	3.5	5.6	0.5	4.5	0.4
Financial establishments, insurance, real estate and company services	4.3	(2.5)	9.8	1.6	3.4	0.6
Social, community and personal services	2.7	2.8	6.3	1.2	4.5	0.9
Financial brokerage services measured indirectly	12.1	(13.7)	51.6	1.7	11.4	0.5
Subtotal: Aggregate value	3.8	3.3	4.7	4.4	4.0	3.8
Taxes minus subsidies	7.1	12.0	12.9	0.9	12.5	0.9
<b>Gross Domestic Product</b>	<b>4.0</b>	<b>3.9</b>	<b>5.3</b>	<b>5.3</b>	<b>4.6</b>	<b>4.6</b>

Source: DANE. Calculations by Banco de la República.

in private construction was offset by civil works, which grew less than expected (5.4%).

A breakdown of the growth in non-tradable sectors between public and private shows a balanced increase in this aggregate during the second quarter: the public component grew by 6.7% and the private, by 6.8%. Government services and construction of civil works are the components of the public non-tradable sectors. The other non-tradable sectors make up the private component.

### C. MONETARY AGGREGATES, CREDIT AND INTEREST RATES

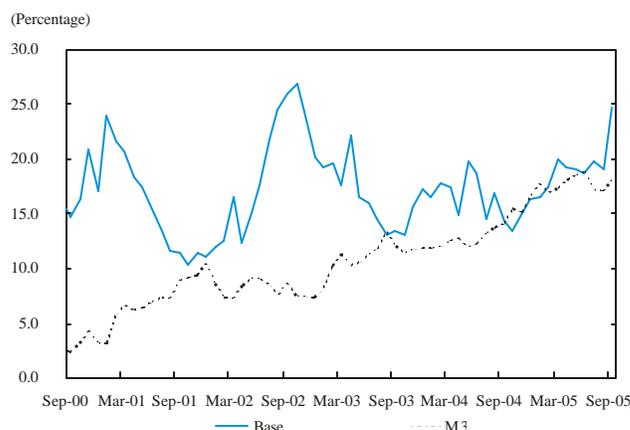
#### 1. Monetary Aggregates

The monetary aggregates continued to exhibit two-digit annual growth rates in recent months, but with mixed tendencies that reflected more of an increase in primary liquidity than in the broader aggregates (Graph 21).

The annual increase in base money at September was 24.7%, having accelerated in relation to the pace at June (18.7%). The bulk of that surge occurred in September and was concentrated more in bank reserves than in cash. However, the increase in the broader monetary aggregate (M3) fell slightly from 18.9% in June to 18.1% in September, due to less growth in public M3. As part of the M3 aggregate, liabilities subject to reserve requirements (LSRR) continued to be redirected towards saving accounts rather than certificates of deposit, as has been the case since mid-2003 (Graph 22).

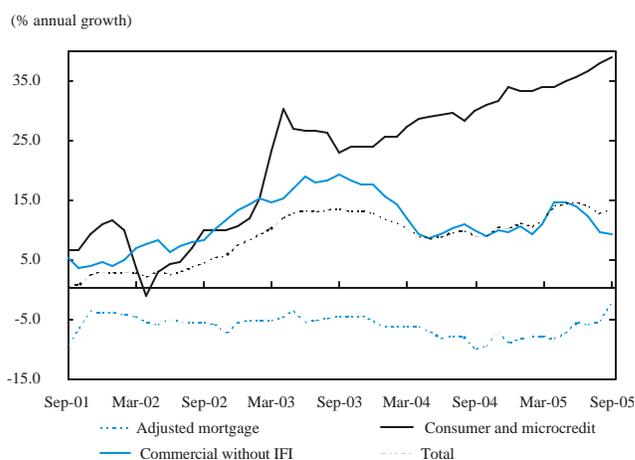
As indicated in the June report, the trends in the monetary indicators seem to be related to the change in brokers' portfolios in favor of domestic assets. Besides the favorable external conditions that have generated an expectation of appreciation, these trends have been encouraged by inflation, which is low and in line with the BDBR target. They also have been affected by an increase in the prices of assets and by a significant and gradually accelerating rise in domestic spending. All these factors, coupled with the reduction in domestic interest rates, likely have increased the demand for real monetary balances.

MONETARY AGGREGATES, ANNUAL GROWTH IN THE MONTHLY AVERAGE



Source: Banking Superintendent. Calculations by Banco de la República.

GROSS PORTFOLIO (LOCAL CURRENCY)



Source: Banking Superintendent. Calculations by Banco de la República.

*As to the different types of credit, annual growth in consumer loans and microcredit remained high (38.5%) and tended to accelerate.*

To satisfy the growing demand for money during the course of the year to September, Banco de la República made discretionary purchases of foreign currency (Col\$8.2 trillion) and definitive TES purchases (Col\$3.5 trillion). These balances have been offset, and then some, by the sale of foreign currency to the government (Col\$4.5 trillion), by government deposits with Banco de la República (Col\$6.2 trillion) and by the sale of TES (Col\$2 trillion). As a result of these operations, the monetary base in September was approximately Col\$1.7 trillion pesos less than in December 2004 (Table 3), but more than in September 2004, as noted earlier.

In June, the Board of Directors of Banco de la República agreed on a new blueprint for supplying primary liquidity. In essence, the National Treasury and the Finance Ministry have agreed to deposit the government's resources with Banco de la República, which will be solely responsible for supplying liquidity to the economy through monetary expansion and contraction operations. This is an attempt to enhance the correlation between the increase

TABLE 3

**SOURCES OF BASE MONEY**  
(BILLIONS OF PESOS)

Description	Annual Variation		Year to date	
	2003	2004	Sep-04	Sep-05
<b>I. Gobierno</b>	914	(236)	(2,496)	(6,232)
Profits transferred <sup>1/</sup>	830	803	803	0
Pesos	830	803	803	0
Dollars		0	0	0
Deposits with the Banco de la República	83	(1,039)	(3,299)	(6,232)
<b>II. TES Regulation</b>	568	(2,524)	(1,661)	1,236
Definitive purchases	893	1,023	635	3,533
Definitive sales	(2,972)	(1,773)	(2,000)	
Maturity	(325)	(575)	(522)	(298)
<b>III. Repos</b>	1,492	(1,058)	(1,355)	(689)
Expansion <sup>2/</sup>	1,386	(1,086)	(1,321)	(689)
Contraction	106	28	(34)	0
<b>IV. Foreign Exchange</b>	(703)	6,194	3,136	3,688
Put options	(703)	4,183	3,758	0
Discretionary intervention	0	3,264	4	8,230
Sale of foreign exchange to the government	0	(1,252)	(626)	(4,543)
<b>V. Others <sup>3/</sup></b>	239	272	160	315
<b>Total variation in base money</b>	2,510	2,647	(2,216)	(1,683)
<b>Base money balance</b>	16,615	19,262	14,399	17,579

<sup>1/</sup> Col\$1,483 million in profits were transferred to the government in 2003, with Col\$651 billion (US\$220 million) of this amount in foreign currency. This means there was no expansionary effect. Similarly, in 2005, all profits turned over to the government (Col\$454 billion or US\$195.9 million) were in dollars.

<sup>2/</sup> Includes one-day, overnight and medium-term repos.

<sup>3/</sup> Among other factors, this includes, the monetary impact of the P&L, TES A maturities, portfolio recovery and investments by Banco de la República.

Source: Banco de la República.



in monetary aggregates, anticipated GDP growth and inflation targeting. At a meeting on 19 August 2004, the Board of Directors decided the liquidity required by the economy at year's end will be provided in line with discretionary exchange intervention <sup>4</sup>

## 2. Credit

In keeping with the trend in financial savings (M3), the nominal gross portfolio in pesos at September was up by an annual rate of 13.2%, which is less than the figure at June 2005 (14.3%). Annual growth in consumer loans and microcredit remained high (38.5%) and tended to accelerate. The commercial portfolio rose by 8.8% in September, which is similar to the rate in the previous quarter. However, the mortgage portfolio declined in annual terms (-2.7%), although at a much slower pace than at the beginning of the year (Graph 22). In September, the portfolio in foreign currency showed an annual increase of 33.6%, as opposed to 38.2% in August and 33.8% in June 2005

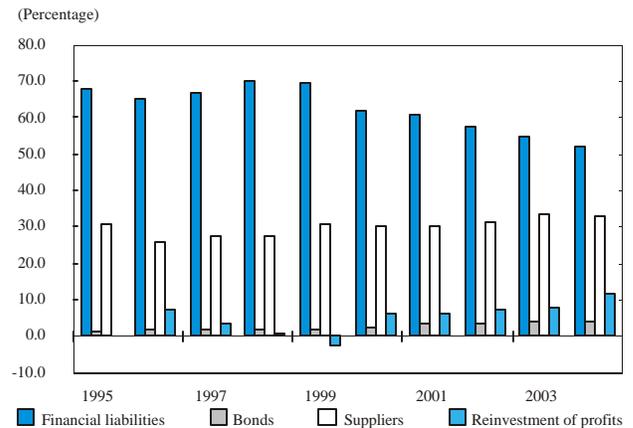
As indicated in earlier reports, the relatively limited increase in commercial loans might be because companies are looking for alternatives other than bank loans to satisfy their credit needs. Although bank loans are still the main source of company financing, recent quarters have seen a recomposition of corporate liabilities in favor of other sources, such as credit from suppliers and placement of bonds and paper on the stock market. There also is evidence to suggest that more profits are being reinvested (Graph 23).

Yet, despite the recovery in credit, the past year has seen only a slight rise in indicators of financial depth, which are still a long way from the highs registered in the second half of the nineties (Graph 24). This conclusion also applies to the consumer portfolio, which is growing fast, as noted earlier. Consequently, there still may be plenty of room for credit to continue to recover and to leverage economic growth.

<sup>4</sup> The Board of Directors reiterated this position at its meeting on 29 October.

GRAPH 23

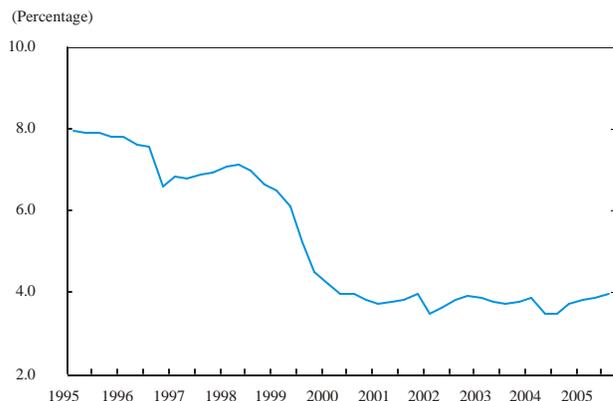
PRINCIPAL SOURCES OF NON-FINANCIAL PRIVATE SECTOR FUNDING, EXCLUDING BAVARIA



Source: Banking Superintendent. Calculations by Banco de la República.

GRAPH 24

CONSUMER LOAN PORTFOLIO AS A PERCENTAGE OF GDP



Source: Banking Superintendent. Calculations by Banco de la República.

GRAPH 25

INTERVENTION AND INTERBANK RATES (\*)



(\*) Data at 20 October 2005.  
Source: Banking Superintendent and calculations by Banco de la República.

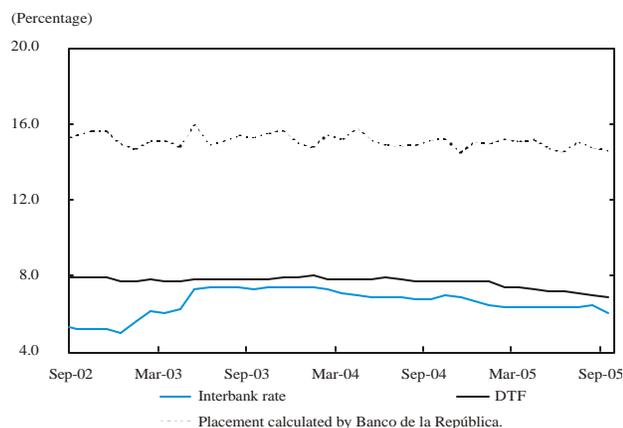
3. Interest Rates

As was expected, the decision by the BDBR on 16 September to lower its reference rates by 50 bp led to a drop in the interbank rate (IIR). Initially this was more than a 50-point decline, but the rate was revised upward, in part, during that same month. By mid-October, it was 5.7% as opposed to 6.3% prior to the decision (Graph 25).

In September, all interest rates, both lending and deposit, were down and at levels below those of the second quarter, reflecting in part the 50 bp reduction in official interest rates (Graph 26)<sup>5</sup>. For example, the average monthly DTF was lower in September (6.8%) with respect to August (7.0%) and June (7.2%). The rates on all types of credit were down (consumer, ordinary and treasury loans). The rates on credit card and preferential loans were the only exceptions, and rose slightly. In real terms, interest rates remained stable or dropped with respect to August and June.

GRAPH 26

NOMINAL INTEREST RATES



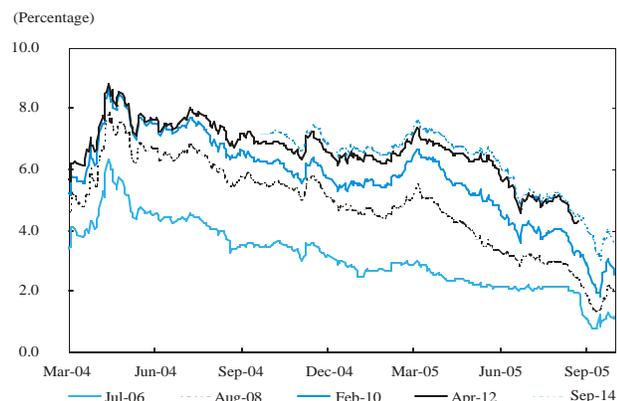
Source: Banking Superintendent. Calculations by Banco de la República.

4. Market for the Domestic Public Debt and Other Assets

The interest rate on treasury bonds (TES) of all maturities continued to fall during the third quarter. Despite some expansion and more volatility at the beginning of October, these increases were slight and appeared to be temporary. At the writing of this report, rates were falling again (Graph 27).

GRAPH 27

REAL TES INTEREST RATES ON THE SECONDARY MARKET (\*)



(\*) Data at 20 October 2005.  
Source: Banking Superintendent. Calculations by Banco de la República.

<sup>5</sup> For an analysis of how intervention rates affect interest rates on the market, see Huertas C.; Jalil, M. Olarte, S.; Romero, J.V. (2005). "Algunas consideraciones sobre el canal de crédito y la transmisión de tasas de interés en Colombia," SGEE, Banco de la República, August.

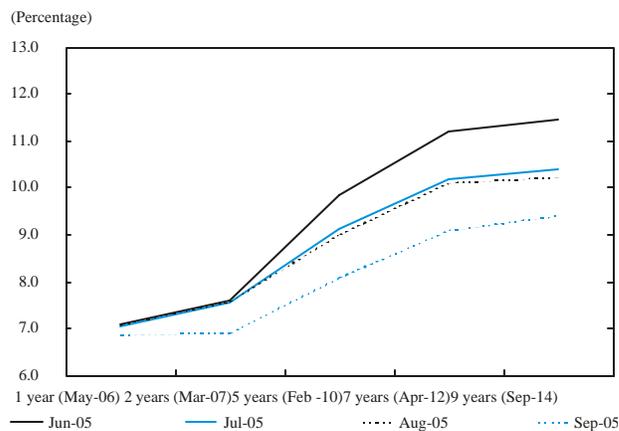
The downward trend in the third quarter was associated with favorable external conditions (as has been the case since last year). The drop in inflation in July and August, and indications of healthy domestic growth also influenced this trend. The instability observed at the end of September and the start of October probably can be explained by the behavior of external interest rates (especially those on U.S. Treasury bonds) and by the perception of possible inflationary pressures in the United States. The rise in domestic rates coincided with a small increase in the country-risk premiums for Colombia and the other emerging economies.

These changes in interest rates slowly flattened the yield curve during the course of the third quarter. In other words, the dips in the short-term areas of the curve have been less pronounced than those spanning the long term (Graph 28). The difference in rates between TES 2014 and TES 2006 fell from 439 bp in June to 254 bp in September. Prior to August and for more than a year, this trend was similar to the pattern in U.S. Treasury bonds. However, the yield curve in the United States climbed during last two months, which was not the case in Colombia.

With respect to other assets, stock prices (GICSE) became more volatile recently, but remained at historically high levels (Graph 29). Annual GICSE appreciation in pesos dropped during September (to 97%) as opposed to August (136%), but is still quite high and above the level observed in the previous quarter (69% at June). GICSE behavior continues to reflect recent company sales and mergers, in addition to healthy profits in the banking system, and an improvement in the basics of the Colombian economy.

Judging by information from the National Department of Planning (DNP), new home prices continued to climb, but at a very slow annual growth rate that has been declining since 2004 (Graph 30). The DNP indicator on new home prices shows 4.3% annual growth (at April of this year), while the DANE indicator registered a 2.8% increase (at June 2005).

**TES YIELD CURVE ON THE SECONDARY MARKET (SEN)**



Source: Bloomberg.

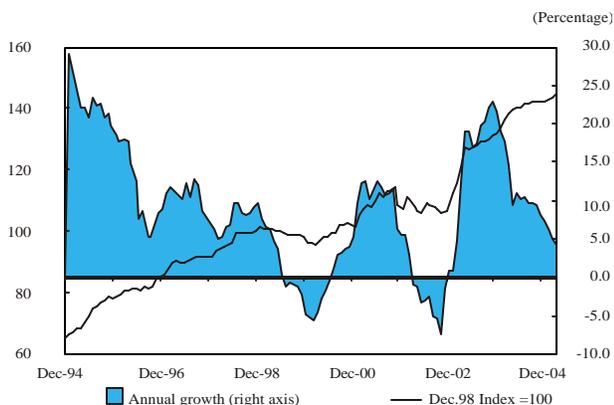
**GENERAL INDEX OF THE COLOMBIAN STOCK EXCHANGE (GICSE)**  
**BASE: 3 JULY 2001 = 1000**



(\*) Data at 20 October 2005.  
 Source: Colombian Stock Exchange.

GRAPH 30

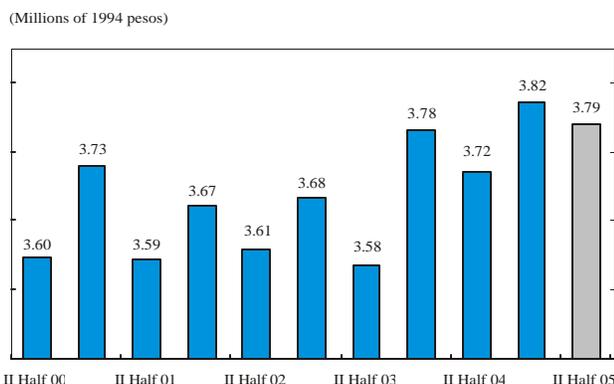
CHANGES IN NEW HOME PRICES  
BOGOTA



Source: Banking Superintendent. Calculations by Banco de la República.

GRAPH 31

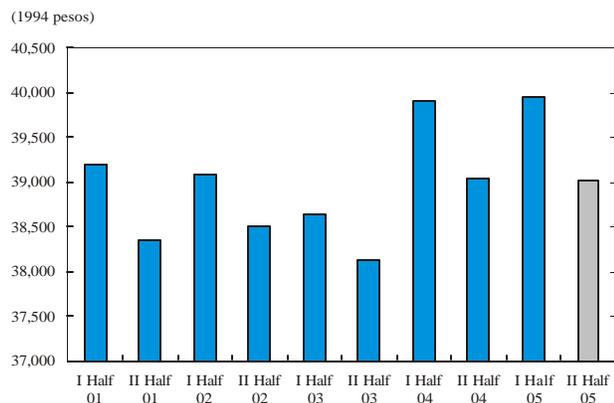
PRODUCTIVITY PER URBAN WORKER (\*)



(\*) GDP excludes government services, agriculture and mining.  
Source: DANE. Calculations by Banco de la República.

GRAPH 32

URBAN OUTPUT PER HOUR WORKED (\*)



(\*) GDP excludes government services, agriculture and mining.  
Source: DANE. Calculations by Banco de la República.

## D. LABOR FACTOR UTILISATION INTENSIVENESS AND THE LABOR MARKET

### 1. Labor Utilisation in 2005

For the purpose of this report, labor utilisation is based on the indicator of output per worker, which is obtained with information from the national accounts and the continuous household survey (CHS). Government services at national and urban level are not included in the calculations<sup>6</sup>. These same sources were used to calculate labor productivity, which is estimated as the ratio of output to hours worked.

According to the estimates on worker output (Graph 31), labor intensiveness has increased as of 2004. This trend continued during the course of 2005 to date and is expected to hold true for the second half of the year.

As analyzed in Box 3, the increase in output per worker (or labor intensiveness) may be associated with two factors. The first is a possible increase in the productivity of labor, in which case growth in production would be less likely to translate into higher costs for companies and, hence, added inflationary pressures.

According to the national accounts and the household surveys, urban output per hour of work<sup>7</sup> has been on the rise since 2004, suggesting added productivity (Graph 32). The annual increase in output per hour of work was 0.1% during the first half of the year and is expected to be up during the second half, inasmuch as GDP growth should accelerate to some degree (See Chapter II). Also,

<sup>6</sup> Output per urban worker is defined as the GDP without agriculture, mining and government services. It takes into account the employed population in 13 cities, with the exception of government manual workers and employees.

<sup>7</sup> Calculated with figures on the total number of hours worked by employed workers in the 13 cities, excluding government manual laborers and employees.

an anticipated rise in employment similar to the one seen in the first half of 2005 is feasible.

Other sectoral indicators also suggest increases in the productivity of labor. Information available at July for the manufacturing industry showed an annual increase of 3.5% in output per hour of work. Part of the growth in productivity (in industry and other sectors) could be explained by an increase in the capital/labor ratio, given the sharp rise in investment in machinery and equipment in recent years. Nevertheless, it is important to remember that productivity also has a procyclical component that moves *pari-passu* with the use of capacity<sup>8</sup>

The second factor that could be associated with the expansion in output per worker in 2004 and 2005 is the increase in the number of hours worked. According to the continuous home surveys, the total number of hours worked so far in 2005 is 5% more than during the same period in 2004<sup>9</sup>.

This circumstance is associated, in practice, with more of a demand for labor on the part of companies. Eventually, it could spell higher labor costs and possible inflationary pressures. This hinges on the situation in the labor market, particularly on the extent of surplus labor, given the growing demand for manpower.

In this respect, the information suggests there is still a broad labor market. The indications pertain to the trend in wages and the unit cost of labor, as well as the pattern of unemployment with respect to the NAIRU estimates (non-accelerating inflation rate of unemployment), and the trend in regular hours and overtime.

- The pace of wage adjustments in commerce and industry declined with respect to the figure in the June report. In April of this year, nominal wages in these sectors were being adjusted at respective annual rates of 9.1% and 8.8%. These adjustments eased at July 2005, and are now increasing at annual rates of 6.0% and 6.1% (Graph 33). As to wages in the construction sector, no substantial change was observed with respect to the situation three months ago (Graph 33). The wage indicator for skilled workers continued to change at rates above those for the average worker. At this level and for this sector, the foregoing could indicate the labor market is now more adjusted. In industry, the growth in labor productivity and the moderate change in wages for

*A number of sectoral indicators suggest increases in productivity ...*

*... part of the rise in productivity (in industry and other sectors) could be explained by an increase in the capital/labor ratio...*

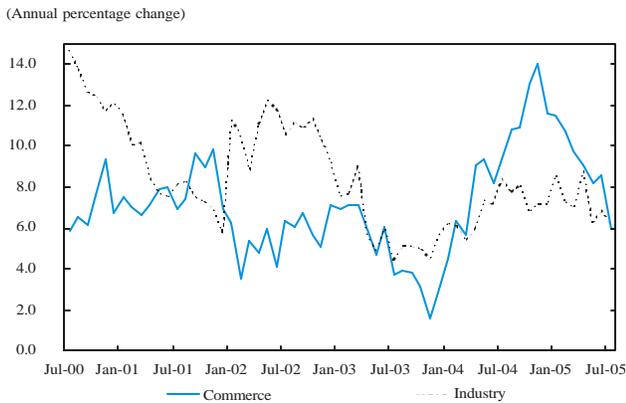
*...given the sharp rise in investment in machinery and equipment in recent years.*

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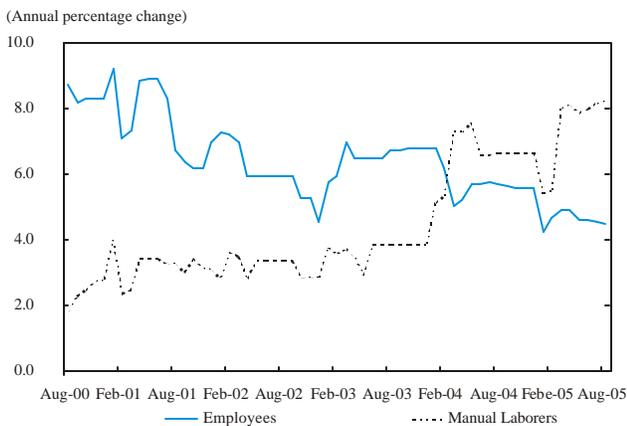
<sup>8</sup> Some studies for Colombia point to a bias in the measurement of industrial productivity, given the market power, growing returns to scale, and changes in the use of installed capacity. See Ramírez, J. M. *et al.* (1998). "Reformas comerciales, márgenes de beneficios y productividad en la industria colombiana," in *Planeación y Desarrollo*, Vol. XXIX, No. 3, July-September.

<sup>9</sup> This increase has not been mirrored in employment, which suggests that the average number of work hours per worker has increased as well.

**NOMINAL WAGE IN THE RETAIL SECTOR AND FOR INDUSTRIAL MANUAL LABORERS**

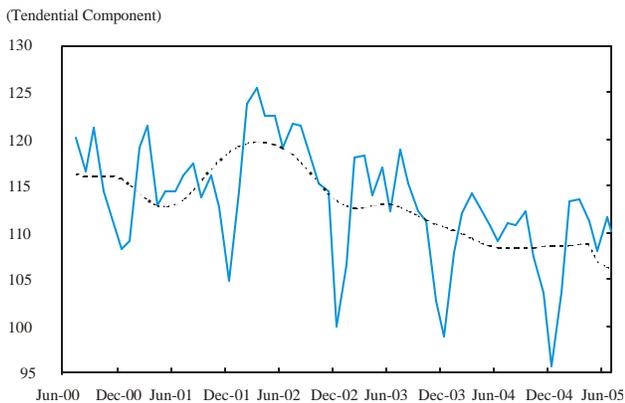


**WAGE INDEX FOR HEAVY CONSTRUCTION (\*)**



(\*) Manual laborers: foreman, worker, journeyman and machinist. Employees: managing engineer, assistant engineer, supply supervisor, accountant and security guard. Source: MMCP, MMM y ICCP - DANE.

**REAL UNIT COST OF LABOR PER HOUR OF WORK IN INDUSTRY**



Source: DANE.

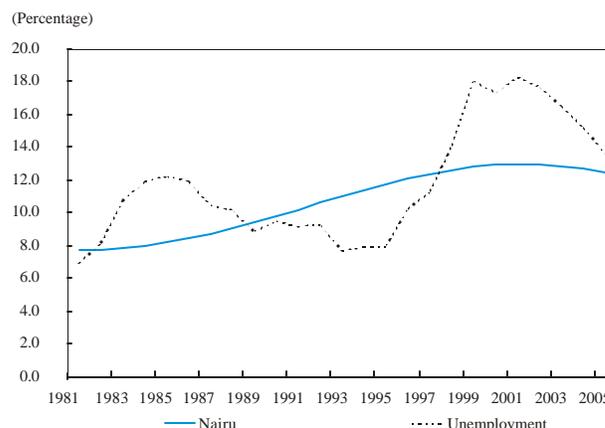
manual laborers was mirrored in a reduction in the unit cost of labor per hour of work, measured in real terms. This cost had experienced an annual reduction of 2.4% at July and 1.8% for the year to date (Graph 34).

- As to the figures on employment, information from the continuous household surveys at August indicates the urban labor market is not as loose as it was two years ago. The unemployment rate was 3.4 percentage points less than in August 2003 and 1.4 percentage points less than in August 2004<sup>10</sup>. At the same time, there has been a decline in the relative supply of labor, as evidenced by the 2.1 percentage point reduction in the global participation rate with respect to the same month in 2003<sup>11</sup>. Even so, the unemployment rate is still above the NAIRU or the unemployment rate with no acceleration in inflation, as calculated by Banco de la República (Graph 35). This would suggest the labor market can continue to deal with an increase in demand, without exerting pressure on wages and prices.
- Apparently, the increase in the number of hours of work reported by the CHS was due primarily to regular work hours rather than overtime. Although the CHS makes no explicit distinction between these hours, other information from an underemployment measurement that is part of the same survey provides some indication in this respect. Specifically, the rate of underemployment attributed to a shortage of work hours dropped by 1.4 percentage points in June 2005 with respect to the same month in 2004 (from 13.1% to 11.7%<sup>12</sup>) (Graph 36). This

<sup>10</sup> The decline pertains to the three-month moving average for the 13 cities. Specific figures for the same period show the rate of unemployment was down from 17.1% in August 2003 to 13.8% in August 2005 (3.3 percentage points).

<sup>11</sup> This decline pertains to the order-three moving average for the 13 cities. Specific data for the same period shows a decline in the global participation rate (GPR) from 65.9% in August 2003 to 63.0% in August 2005.

UNEMPLOYMENT RATE AND NAIRU



**Note:** This pertains to the average annual rate of unemployment in seven cities. The figure for 2005 is the prediction by Banco de la República. During the course of the year to September, average unemployment for the seven cities was 14.2%.  
Source: DANE and Banco de la República.

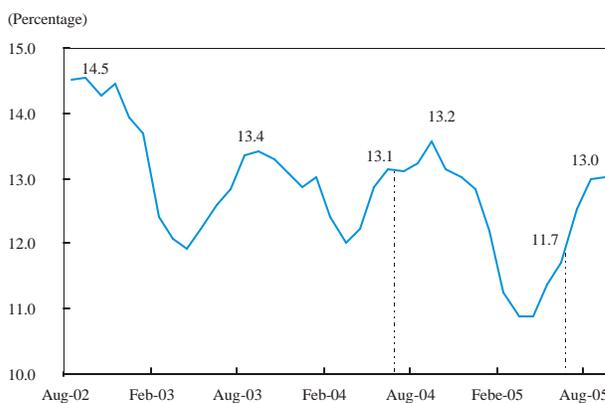
would indicate that more employees expanded their workday towards normal levels, which supports the idea that the growth in hours of work is more the result of regular hours than overtime.

- Therefore, most of the demand for labor has been satisfied by an increase in regular hours, confirming that the labor market still has a sizeable reserve of workers to employ. On the other hand, an increase in overtime would mean this reserve is not large and it is more economical for companies to pay overtime (which is more expensive) than to hire new employees.

In short, the indications are that the increase in output during the last two years may have been accompanied by a rise in labor productivity. Indirect calculations, such as output per hour of work in the urban area, and sectoral indicators, such as the unit cost of labor per hour of work in industry, support this claim. Unfortunately, there are no indicators for the economy as a whole concerning the compensation paid to wage earners as a share of output<sup>13</sup>.

The conclusions derived from the foregoing analysis should be regarded with caution, since the supporting figures usually are subject to a major revision. Also, some of the information used is extremely partial and/or is from samples that are not necessarily representative of the variables used. Therefore, the findings may not be precise or readily generalizable.

URBAN UNDEREMPLOYMENT



Source: DANE Continuous Household Survey.

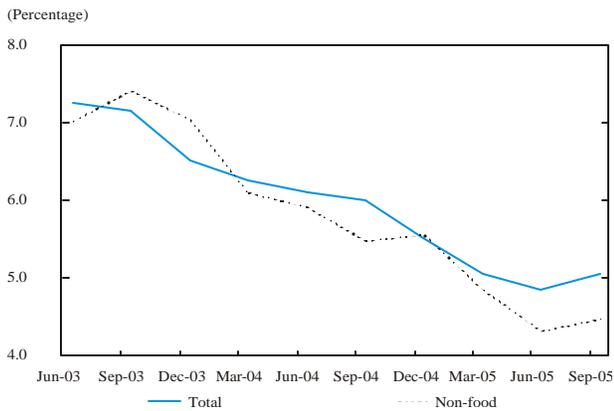
E. INFLATION AT SEPTEMBER AND ITS DETERMINANTS

1. Consumer Inflation

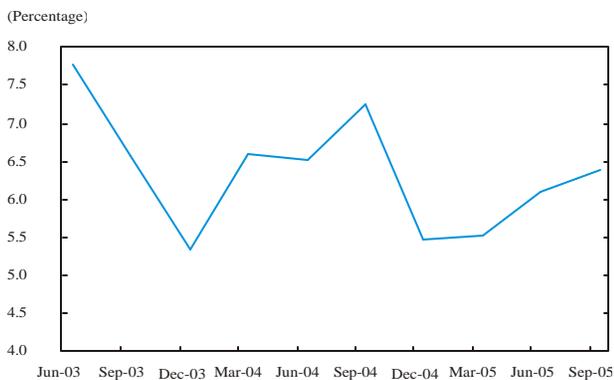
Total consumer inflation was 5% at September (Graph 37). This is the mid-point in the target range set by the Bank. The pattern of consumer inflation in

<sup>12</sup> This pertains to the three-month moving average for 13 cities.

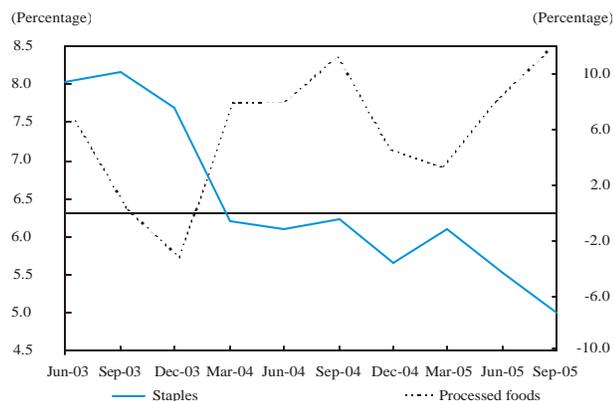
<sup>13</sup> In Colombia, DANE has a two-year backlog in publishing the GDP calculation on income, together with the National Accounts.

**GRAPH 37****ANNUAL CONSUMER INFLATION**

Source: DANE. Calculations by Banco de la República.

**GRAPH 38****FOOD CPI  
(ANNUAL CHANGE)**

Source: DANE. Calculations by Banco de la República.

**GRAPH 39****ANNUAL STAPLE AND PROCESSED  
FOOD INFLATION**

Source: DANE. Continuing Household Survey.

the third quarter was up slightly for the food index and the non-food aggregate, but particularly for the former.

Non-food inflation is 4.4% (Graph 37). This is below the target range, but slightly above the figure for June (4.3%). The increase was concentrated in rentals and public utilities.

Generally speaking, the outcome for inflation at September was consistent with the prediction in the June report (4.9% total inflation at September). Food was responsible for the discrepancy between the forecast and the actual figure; the prediction (6%) being less than the fact (6.4%) (Graph 38). As such, stronger upward pressure on consumer inflation in the third quarter came mainly from these prices. Non-food inflation was forecast at 4.4%, according to what was observed.

A breakdown of the consumer price index (CPI) for processed and perishable foods shows a downturn in processed food inflation, which was 5% at September 2005. The opposite was true of perishables; they registered 11.7% inflation at September 2005 (Graph 39).

Inflation in staple foods has been atypical during 2005. Traditionally, there is an abundant supply in the second half of year, which means lower prices or only small increases. However, as of July 2005, there have been major hikes in the prices of certain perishable foods such as potatoes, apparently because of a less than ample supply.

Based on the models used by the Bank, earlier reports predicted annual food inflation would peak in June, then decline to 5.4% in December. However, the latest figures suggest that food inflation could continue to rise throughout the remainder of the year and peak at the end of 2005. If so, the anticipated reduction would be delayed until early 2006.

With respect to core or underlying inflation, the average of the three most reliable indicators (nucleus 20, non-food CPI and CPI without staple foods,



fuel and public utilities) was up slightly during the quarter and had risen to 4.4% by September, after being 4.3% in June. Even so, the three indicators were still very near the bottom of the target range (Graph 40).

A breakdown of non-food inflation between tradables and non-tradables showed that low core inflation continues to be attributed mainly to tradable inflation, which has declined steadily since late 2003, consistent with appreciation of the exchange rate. However, the latest figures show a standstill in this trend. Tradable inflation (without food) was 2.8% at September, which is very close to the figure at June (2.9%) (Graph 41).

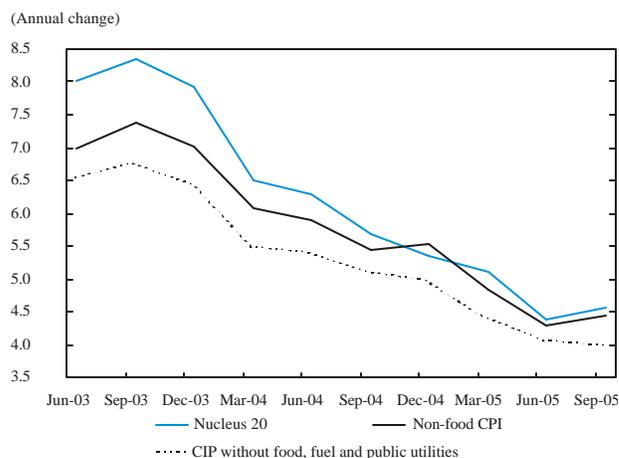
Tradables have declined by 167 bp during the year to date and the pattern of their reduction was less from one quarter to the next: 95 bp in the first, 60 bp in the second and only 13 bp in the third. The indications are that this trend is proportional strongly related to stability of the exchange rate, which has been around Col\$2,300 for several months.

The trends are not much different when regulated prices are excluded from the basket of non-food tradables. Annual inflation in this sub-basket was 2.0% at September as opposed to 2.1% at June (Graph 41). Moreover, the final figures for the third quarter confirmed the forecasts outlined in the previous report.

On the other hand, non-tradable inflation without food declined until July, only to be followed by a sharp rebound in August and September. Annual inflation in this sub-basket was 5.5% at September, which is an increase of 33 bp with respect to the June figure.

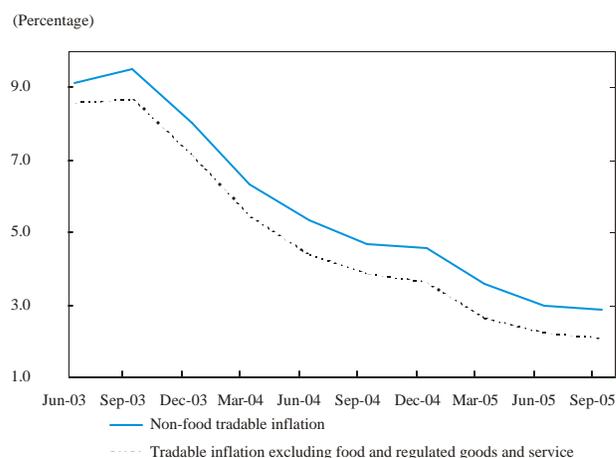
The bulk of the upsurge was due to inflation in public services, as suggested by the less pronounced increase in the sub-basket that excludes these items. In effect, non-tradable inflation without food or regulated goods and services was 4.6% at September, as opposed to 4.5% at June (Graph 42). The actual figures were a bit above what the Bank had predicted.

CORE INFLATION INDICATORS

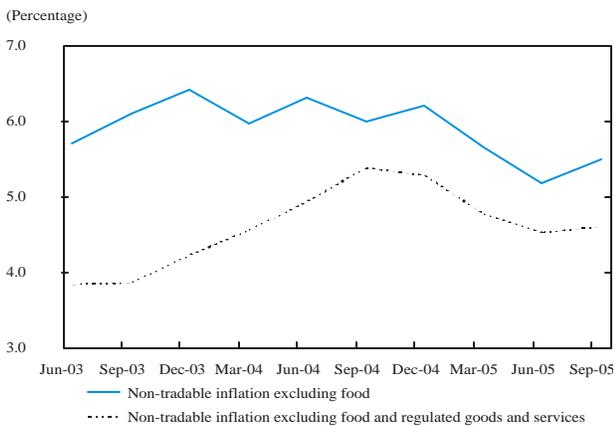
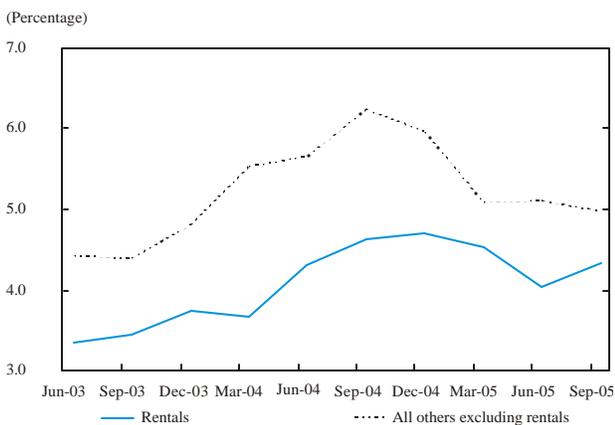
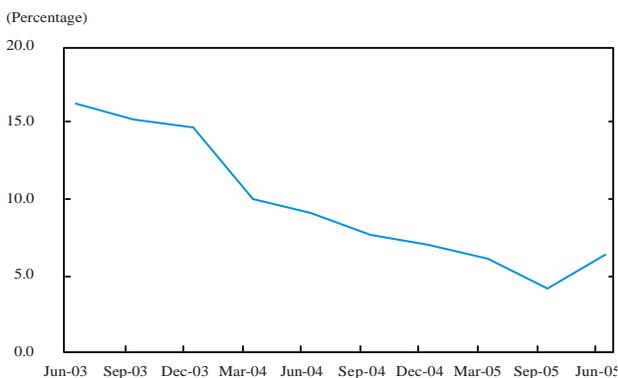


Source: DANE. Calculations by Banco de la República.

NON-FOOD TRADABLE CPI (ANNUAL CHANGE)



Source: DANE. Calculations by Banco de la República.

**GRAPH 42****NON-TRADABLE CPI, WITHOUT FOOD  
(ANNUAL CHANGE)****GRAPH 43****NON-TRADABLE CPI BREAKDOWN (\*)  
(ANNUAL CHANGE)****GRAPH 44****PUBLIC UTILITIES CPI**

An unexpected increase in rentals also fueled non-tradable inflation. As shown in Graph 43, annual inflation in rentals came to a standstill at mid-2004, ending the slow but steady rise that began in 2001. During 2005, the series has been more unstable than usual; it has shown no definite pattern and is slightly below 4.5%. Consequently, what happened in September could be the result of an isolated upsurge that implies no change in trend.

On the other hand, the rise in public utility rates is explained by a statistical situation attributed to an extremely low basis of comparison in August and September of last year<sup>14</sup>. However, discounting this circumstance, inflation in public utilities exhibited a downward trend at mid-term because of rate adjustments (primarily for electricity) that were far lower than in previous years (Graph 44).

Lastly, inflation in regulated goods and services, like total CPI, continued to be influenced by the fuel price hikes resulting from high oil prices on the international market. Items such as air and land transport have been affected by these increases.

## 2. Determinants of Inflation

Four basic factors determined the pattern of inflation in Colombia during the past year. These are the exchange rate, expectations of inflation, the output gap and wage costs. As indicated on earlier occasions, these factors are related to the principal channels for monetary policy transmission.

<sup>14</sup> In August 2004, Bogota and other cities were authorized to lower the fixed rate for water and sewage, inasmuch as items not chargeable to the customer were being included. Because there were no reductions of this type in August 2005 (they were one-time only), annual inflation increased again.

Up until the report last June, it was clear that the decline in inflation during the four preceding quarters was due partly to appreciation of the exchange rate, which allowed for a steady decline to extremely low level of tradable inflation. The reduction in expectations of inflation, thanks to compliance with previous targets and moderate wage increases in the context of a relatively loose labor market, also contributed to this deflationary pressure.

At the same time, although the economy accumulated several quarters of acceptable growth, there were no signs of demand-pull inflationary pressure. In fact, estimates of the output gap, which were based on the growth figures available at the time, suggested the economy still had surplus productive capacity, with a negative but closing output gap.

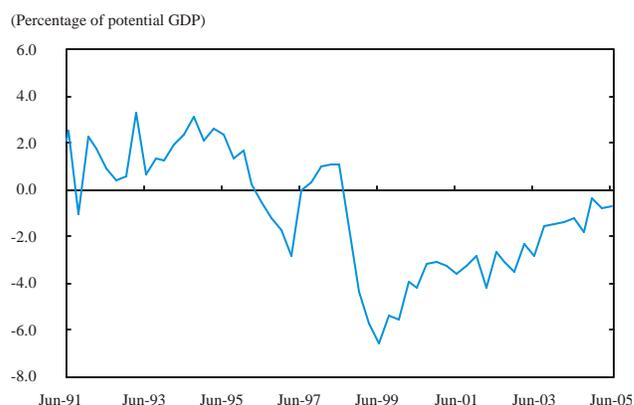
Roughly speaking, the figures for inflation and the other macroeconomic variables prior to the third quarter support the previous assessment on the role now being played by the channels for monetary-policy transmission. However, the new information suggests certain changes in the determinants of inflation, which are indicated as follows.

***Demand-pull Pressures and the Output Gap.*** Perhaps the most relevant change in light of third-quarter data concerns demand-pull pressures and the output gap. The output gap was re-estimated for the purpose of this report and the results show it is narrower than the estimates in earlier reports. Although the new figure keeps the gap in negative terrain, its average value for 2005 is now -0.6% and not -1.4% as was estimated previously (Graph 45).

There were several reasons for the change in the size of the gap:

- The first concerns the historic growth figures revised by DANE, as noted in Section B of this chapter. The increase in the figures for growth in 2003 and the first quarter of the year reduce the estimated gap.
- The second and perhaps the most important reason is the high rate of growth observed in the second quarter of this year. Previous estimates of the gap assumed 4.5% to 5% growth during that period, but the result was above 5%. As noted in Chapter 2 of this report, better economic performance during the first six months of the year raised the forecasts for the second half.

#### OUTPUT GAP



Source: Banco de la República.

*The most relevant change in light of third-quarter data concerns demand-pull pressures and the output gap.*

*The output gap was re-estimated for the purpose of this report and the results show it is narrower than the estimates in earlier reports.*

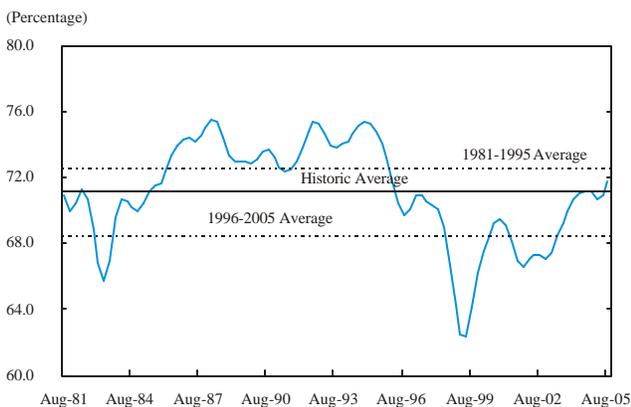
*There also is evidence in favor of more growth in potential and non-inflationary GDP than predicted initially. This supports the idea that the gap might still be in negative terrain, despite the increased force of economic growth.*

- Thirdly, information has emerged in the last two quarters to suggest that the surplus production capacity in sectors such as industry is almost, if not already, a thing of the past. For example, the Fedesarrollo estimate on use of installed capacity (UIC) in recent quarters has been equal to or very near its historic average (Graph 46). And, the ANDI estimate of UIC in recent months was above the historic averages. Another variable associated with the gap; namely, the perception of demand in terms of the problem for expanding industrial production, is at very low levels.
- However, there also is evidence in favor of more growth in potential and non-inflationary GDP than predicted initially. This supports the idea that the gap might still be in negative terrain, despite the increased force of economic growth. Various productivity indicators, such as those presented in the previous section, have accelerated in recent quarters, following a long standstill or even a setback during the economic recession that began at the end of the nineties. Also, the momentum in investment during the last three years has been quite significant, so much so that the investment rate is beginning to exceed its historic average. The focus of investment has been on capital goods (imported machinery and equipment) for production sectors such as industry, telecommunications and data processing, more than housing. Not only does this allow for a certain amount of confidence about a major expansion in the productive capacity of the economy, it also points to the adoption of certain technological innovations that are likely to allow for greater productivity.

As indicated in the previous section, non-tradable inflation has declined throughout most of 2005, corroborating the absence of demand-pull inflationary pressures up to now. However, closure of the gap as estimated in this report does suggest the potential for future demand-pull pressure is greater today than was indicated in previous reports. The fact that core and non-tradable inflation ceased to decline in recent months could be the first indication of this.

GRAPH 46

**USE OF INSTALLED CAPACITY  
(TENDENTIAL COMPONENT)**



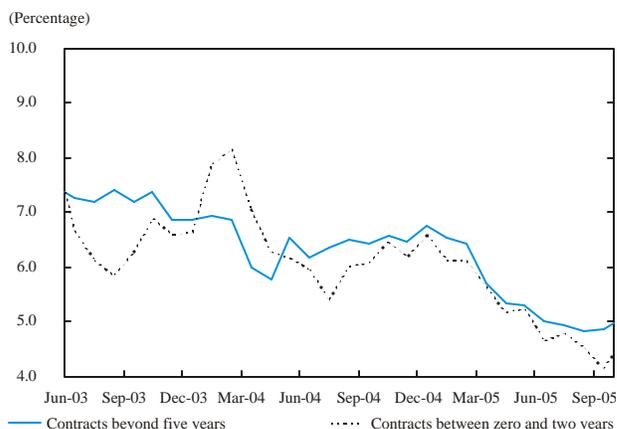
Source: Fedesarrollo. Calculations by Banco de la República.

**The Exchange Rate:** Accumulated exchange-rate appreciation allowed for another reduction in tradable inflation during the third quarter and helped to keep total inflation in line with the target set by Banco de la República. However, there is every indication that downward pressure is about to run out. This was to be expected, given the interruption in nominal appreciation several quarters back. Should this situation continue, the exchange channel will cease to help lower inflation in the mid-term (as of 2006).

**Expectations:** Recent months have seen a continued decline in expectations, as suggested by several of the indicators used by the Bank (Graph 47). By September and early October, the rate of inflation anticipated by the markets for the end of 2005 was compatible with the target range. Nor were there any substantial changes in expectations at 12 months, due to the growing rise in inflation.

**Labor Costs:** As analyzed in Section D of this chapter, the available indicators suggest that wage adjustments continued to be very low, even less so than at the start of the year. Although bottlenecks could emerge in certain markets for skilled labor, these situations do not appear to be generalized up to now. The indicators of employment and hours worked also point to further improvement in conditions on the job market, but perhaps not enough to eliminate the surplus supply that still exists or to prompt higher wage increases than are compatible with the inflation targets. Finally, there is evidence of gains in labor productivity that might have offset some of the pressure from costs.

**EXPECTATIONS OF INFLATION DERIVED FROM TES CONTRACTS AT FIXED AND VARIABLE RATES (\*)**



(\*) With data up to 21 October  
Source: SEN, Banco de la República.

## HOW HAS THE MANUFACTURING INDUSTRY BEEN AFFECTED BY APPRECIATION?

Mario Nigrinis Ospina  
Andrés Velasco Martínez\*

Appreciation of the exchange rate has had different and even opposite repercussions on the manufacturing industry. While 50% of the companies regard the new impact as unfavorable, 28% view it as positive and 22% say it has had no effect.

These findings are from a special model of the Fedesarrollo business opinion poll contracted by Banco de la República to assess the impact of exchange rate appreciation on industry during the past two years<sup>1</sup>. *The poll was conducted in August with 340 companies in different parts of the country. The results have a 5% relative margin of error.*

When the companies are classified as exporters and non-exporters, 65.6% of those that direct a portion of their production to foreign sales and 24.3% of the non-exporting companies said the net effect of exchange rate appreciation has been unfavorable (Table B1.1). However, 46.1% of the non-exporting companies believe it has been favorable.

With respect to the exporting companies that saw the trend in the exchange rate as unfavorable, 70.8% said the biggest negative effect was on the margin of profits for

**TABLE B1.1**  
IN TERMS OF NET IMPACT, HOW HAS THE PERFORMANCE OF YOUR COMPANY BEEN AFFECTED BY  
VARIATIONS IN THE EXCHANGE RATE DURING THE LAST TWO YEARS?

	National total	Exporters			Non Exporters	CUODE				
		Total	X<30%	30%<X<50%		50%<X	Consumer	Intermediate	Capital	Constr.
Favorably	27.5	17.2	24	10.3	2.4	46.1	33	21.3	17.4	27.3
Not at all	21.6	17.2	21.7	5.1	14.6	29.6	21	21.3	17.4	36.4
Unfavorably	50.9	65.6	54.3	84.6	82.9	24.3	46	57.5	65.2	36.4

Source: Fedesarrollo Business Opinion Poll.

\* The authors are experts who work with the Programming and Inflation Department at Banco de la República. The opinions expressed herein are solely those of the authors and imply no commitment on the part of Banco de la República or its Board of Directors.

<sup>1</sup> The average rate of exchange went from Col\$2,867 per dollar to Col\$2,306 between August 2003 and August 2005. This is equivalent to 19.6% appreciation during a period of two years. In real terms, average appreciation of the exchange rate between 2003 and 2005 was 15.7%.

exports, while 17.5% said that export volume suffered the most. These findings vary according to export intensity: 24.3% of the companies that export less than 30% of their production said less volume was the main problem, while 61.4% pointed to the reduction in the profit margin on exports. In the export-intensive category<sup>2</sup>, 8.8% of the companies said the main problem was the decline in export volume, while 85.3% expressed concern over the loss of profits on their external operations (Table B1.2).

Non-exporting companies that considered the net effect of exchange rate appreciation on their performance as unfavorable cited increased competition as the biggest repercussion. The replies from these companies focused on a reduction in the volume of domestic sales (28.6%), a reduction in prices for the products they sell (21.4%) and a decline in profit margin (17.9%).

On the other hand, the companies that believe appreciation of the exchange rate has had a favorable impact on their business (27.5% nationwide) cited a reduction in the cost of raw materials (61.8%) and a decline in the cost of imported machinery and equipment (24.7%) as the main benefits. A breakdown shows exporting companies afford less importance to these benefits (58.3% and 22.2%, respectively) and regard the reduction in the cost of foreign debt service as important (13.9%).

**TABLE B1.2**  
**IN TERMS OF NET IMPACT, HOW HAS THE PERFORMANCE OF YOUR COMPANY BEEN AFFECTED BY VARIATIONS IN THE EXCHANGE RATE DURING THE LAST TWO YEARS?**

	National total	Exporters				Non Exporters	CUODE			
		Total	Less than 30%	30%-50%	Above 50%		Consumer	Intermediate	Capital	Constr.
Reduction in the volume of exports	16.4	17.5	24.3	12.1	8.8	10.7	12.3	28.3	10.0	12.5
of domestic sales	7.3	2.9	2.9	3.0	2.9	28.6	6.2	10.9	6.7	0.0
Reduction in the margin of profit on exports	62.4	70.8	61.4	75.8	85.3	21.4	69.1	45.7	63.3	87.5
of profit on production for the domestic market	5.5	2.9	2.9	6.1	0.0	17.9	2.5	8.7	10.0	0.0
Reduction in domestic prices for their products	7.9	5.1	7.1	3.0	2.9	21.4	8.6	6.5	10.0	0.0
Other	0.6	0.7	1.4	0.0	0.0	0.0	1.2	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Fedesarrollo Business Opinion Poll, August 2005.

<sup>2</sup> Companies that export more than 50% of their production.

As to use or economic destination, the companies producing capital goods complained the most about an unfavorable net impact from the exchange rate (65.2%), followed by producers of raw materials (57.5%), consumer goods (46.0%) and items for construction (36.4%). All the companies surveyed mentioned the decline in profit margin on exports as the main problem. In this group, the companies that produce items for construction have been affected the most (87.5% as opposed to 69.1% of those producing consumer goods, 63.3% of those producing capital goods and 45.7% of those producing raw materials). Interestingly, 33% of the companies that manufacture capital goods believe the net effect of appreciation has been favorable. This is the highest percentage among the different types of industries.

### How have companies reacted to revaluation?

The main reaction from companies that believe the net effect of exchange rate appreciation has been unfavorable is to reduce their labor costs (21.0%) and to increase the use of imported input (20.3%) (Table B1.3). The use of exchange hedging mechanisms (11.6%) and the search for new markets do not appear to be among the first options companies turn to as a major strategy.

In the case of non-exporting companies that have been negatively affected by exchange rate appreciation during the last two years, their main strategy for dealing with this

**TABLE B1.3**  
WHAT IS YOUR MAIN STRATEGY FOR DEALING WITH THE UNFAVORABLE NET IMPACT EXCHANGE RATE VARIATIONS DURING THE LAST TWO YEARS HAVE HAD ON THE PERFORMANCE OF YOUR COMPANY?

	National total	Exporters				Non Exporters	CUODE			
		Total	Less than 30%	30%-50%	Above 50%		Consumer	Intermediate	Capital	Constr.
Reduce labor costs	22.6	21.0	19.7	21.2	23.5	30.8	18.8	19.6	36.7	25.0
Investment in machinery and equipment	11.0	8.0	7.0	12.1	5.9	26.9	7.5	17.4	13.3	0.0
More use of imported input	17.7	20.3	23.9	12.1	20.6	3.8	21.3	15.2	13.3	12.5
Other measures to increase productivity	18.3	18.1	16.9	21.2	17.6	19.2	18.8	23.9	13.3	0.0
Search for new export markets	9.8	10.1	9.9	6.1	14.7	7.7	10.0	10.9	6.7	12.5
Produce a lesser number of products	1.8	1.4	2.8	0.0	0.0	3.8	3.8	0.0	0.0	0.0
Use of exchange hedging mechanisms	9.8	11.6	7.0	18.2	14.7	0.0	11.3	6.5	6.7	25.0
None	4.9	5.8	5.6	9.1	2.9	0.0	5.0	4.3	0.0	25.0
Others	4.3	3.6	7.0	0.0	0.0	7.7	3.8	2.2	10.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Fedesarrollo Business Opinion Poll, August 2005.



situation has been to reduce labor costs (30.8%) and to invest more in machinery and equipment (26.9%).

During the next 12 months, 14.8% of the exporting companies plan to increase their staff, while 16.7% are considering the possibility of cutbacks in this respect. In the case of non-exporting companies, the replies were 20.9% and 11.3%, respectively. As to investment in machinery and equipment during the next 12 months, both exporting and non-exporting companies are considering the possibility of more investments of this type (45.5% and 39.1%, respectively) and almost none plan to reduce these investments (3.3% and 1.7%).

## HOW IS TRADE WITH CHINA AFFECTING US?\*

Gloria Alonso Másmela\*\*

During the course of the year to July, Colombian imports totaled US\$10,869 million and rose at an annual rate of 24% in relation to the same period in 2004. Thirty-one percent of these purchases involve products made in North America, 30% are of Latin American origin, and those manufactured in China account for 7% of the total<sup>1</sup>. In 2003, this share was 4.8%, which means Chinese imports have increased by nearly 50% a year (Table B2.1).

Nearly all imports from China are manufactured goods. The last two years have seen a major increase in products from the chemical industry (50% per year, on average), metallic goods, machinery and equipment (64%), and products from the textile and leather industries (43%) (Table B2.2).

On the other hand, total sales of Colombian products to China rose by 66% during the year to June. The most dynamic of these were ferrous nickel exports, which account for 70% of all items exported to that country (Table B2.3). As a whole, the trade deficit with China has grown by nearly US\$200 m in the past year, and is US\$622 m for the year to June (Table B2.4).

### What is the impact on national production?

There is evidence to suggest that Chinese exports have had a negative effect on the textile and garment sectors, and on the leather and footwear sector, where Chinese imports between 2001 and 2003 accounted for more than 50% of all imports in the sector.

Textile and garment imports have grown considerably (17% during the year to July), as has the share of items manufactured in China (from 18% in 2003 to 26% in 2005). Furthermore, Chinese competition in other markets is growing steadily. For example, Chinese exports to the United States of the main garments Colombia sells to that market rose by 116% between January and July with respect to the same period in 2004 (Table B2.5). This increase may be associated with elimination of the Multifiber Agreement in

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\* A more detail analysis about this topic can be found in the Editorial Note of Revista del Banco de la República, in the august of 2005 edition.

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<sup>1</sup> The analysis changes considerably when based on information by country of purchase.

the United States, which imposed quotas on exports of textiles and garments to that country.

In other cases, the evidence is not so clear. For example, although China's share of imports of metal products and machinery and equipment doubled with respect to 2003, it remains relatively low (only 10% of the total).

A simple measure of revealed competitiveness (relative trade balance-RTB) with the rest of the world (including China) was constructed to evaluate the possible impact of Chinese imports on the competitiveness of these industrial sectors. This was the measure used to determine their impact during the last two years.

The indicator is defined as:

$$BCR_i = (E - M)_i^w / (E + M)_i^w$$

Where:  $E$  represents the exports of product  $i$  to the rest of the world and  $M$  represents the imports of product  $i$  from the rest of the world. The value of this indicator should vary between -1 (complete competitive disadvantage) and 1 (complete competitive advantage).

The results show the degree of competitiveness has remained relatively stable since 2004 in many sectors where Chinese imports have considerable penetration (Table

**TABLE B2.1**  
**TOTAL IMPORTS BY COUNTRY OF ORIGIN AND ECONOMIC ZONE**  
(MILLIONS OF DOLLARS FOB)

	2003	2004	Jul-05	% Annual Change		Percentual Structure		
				2004	Jul-05	2003	2004	2005
<b>America</b>	<b>7,734.2</b>	<b>9,430.5</b>	<b>6,641.2</b>	<b>21.9</b>	<b>28.5</b>	<b>59.4</b>	<b>60.3</b>	<b>61.1</b>
North America 1/	4,173.4	4,918.1	3,412.7	17.8	25.3	32.0	31.5	31.4
Latin America	3,547.4	4,502.6	3,208.5	26.9	31.5	27.2	28.8	29.5
Aladi	3,451.6	4,390.8	3,081.5	27.2	29.7	26.5	28.1	28.4
Andean Community	1,446.9	1,825.6	1,152.1	26.2	16.9	11.1	11.7	10.6
Rest of Aladi	2,004.7	2,565.1	1,929.4	28.0	38.7	15.4	16.4	17.8
Rest of Latin America	40.0	47.0	47.0	17.5	88.0	0.2	0.2	0.3
<b>Europe</b>	<b>2,269.4</b>	<b>2,463.6</b>	<b>1,718.6</b>	<b>8.6</b>	<b>26.2</b>	<b>17.4</b>	<b>15.8</b>	<b>15.8</b>
EEC	1,868.2	1,922.1	1,235.2	2.9	16.4	14.3	12.3	11.4
EFTA	336.0	424.8	373.7	26.4	60.0	2.6	2.7	3.4
<b>Asia</b>	<b>2,157.2</b>	<b>2,774.3</b>	<b>1,915.2</b>	<b>28.6</b>	<b>31.2</b>	<b>16.6</b>	<b>17.8</b>	<b>17.6</b>
Japan	605.9	600.8	357.2	(0.8)	7.7	4.7	3.8	3.3
China	631.1	968.8	738.1	53.5	53.7	4.8	6.2	6.8
Middle East	83.9	111.7	63.8	33.2	9.1	0.6	0.7	0.6
Others	836.3	1,093.1	756.2	30.7	28.3	6.4	7.0	7.0
<b>Africa</b>	<b>68.3</b>	<b>67.2</b>	<b>48.8</b>	<b>(1.6)</b>	<b>42.8</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>
<b>Oceania</b>	<b>44.9</b>	<b>36.0</b>	<b>14.3</b>	<b>(19.9)</b>	<b>(38.3)</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>
<b>Other Countries</b>	<b>755.6</b>	<b>857.3</b>	<b>530.0</b>	<b>13.4</b>	<b>19.4</b>	<b>5.8</b>	<b>5.5</b>	<b>4.9</b>
<b>Total</b>	<b>13,029.7</b>	<b>15,628.9</b>	<b>10,868.1</b>	<b>19.9</b>	<b>28.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

1/ Includes the United States, Canada and Puerto Rico.  
Source: DANE and DIAN.

**TABLE B2.2**  
**IMPORTS ACCORDING TO SINGLE IMPORT FORMS, COUNTRY OF ORIGIN: CHINA 1/**

	(Millions of Dollars FOB)			Annual Change (%)		Percentual Structure		
	2003	2004	Jul-05	Annual Change (%)		2003	2004	2005
				Jul-04	Jul-05			
I. Total imports	631	969	738	53.5	53.7	100.0	100.0	100.0
II. Petroleum and its by-products	6	8	5	28.7	29.3	0.9	0.8	0.6
III. Imports other than petroleum and its by-products 2/	625	961	734	53.7	53.9	99.1	99.2	99.4
A. Agriculture/livestock sector	6	6	4	5.1	3.5	1.0	0.7	0.6
B. Manufacturing sector	617	951	726	54.1	54.5	97.8	98.2	98.4
1. Food, beverages and tobacco	2	2	2	11.8	87.2	0.3	0.2	0.3
2. Textiles and leather industries	128	189	122	47.3	36.4	20.3	19.5	16.5
Outerwear for women and men	11	17	13	54.5	89.1	1.8	1.8	1.7
Other products	117	171	109	46.6	32.1	18.5	17.7	14.8
3. Paper and printing industries	2	3	2	82.7	96.3	0.2	0.3	0.3
4. Chemical industries	96	153	117	59.9	45.0	15.2	15.8	15.8
5. Non-metallic mineral industries	13	20	18	48.8	74.7	2.1	2.1	2.4
6. Base metal industries	9	17	18	81.6	-	1.5	1.7	2.4
7. Metallic products, machinery and equipment	273	448	371	64.3	60.4	43.2	46.2	50.3
Engines and parts thereof	1	2	2	47.8	97.0	0.2	0.2	0.3
Pumps and parts thereof	1	2	2	53.2	87.1	0.2	0.2	0.2
Automatic numeric machines	58	67	66	15.8	107.9	9.2	7.0	8.9
Rolling stock	4	4	2	18.5	(19.7)	0.6	0.4	0.3
Automatic communication exchange systems	16	19	24	21.2	-	2.5	2.0	3.2
Television and radio broadcast receivers	63	135	118	115.9	71.7	9.9	14.0	16.0
Unassembled vehicles (CKD)	5	9	9	73.7	88.6	0.8	0.9	1.2
Vehicle parts	2	5	5	138.1	75.7	0.3	0.5	0.6
Other products	122	179	137	47.5	55.8	19.3	18.5	18.6
8. Other industrial goods	94	119	76	26.4	56.4	15.0	12.3	10.3
C. Mining sector	2	4	3	85.7	24.2	0.3	0.4	0.4

1/ Provisional figures.

2/ Does not include temporary or short-term imports, reimports and others.

Note: Includes adjustments for the balance of payments.

Source: DANE and DIAN.

**TABLE B2.3**  
**EXPORTS ACCORDING TO SINGLE EXPORT FORMS - CHINA 1/**  
**(MILLIONS OF DOLLARS FOB)**

	Total		Accumulated at June 2/		Annual Change (%)	
	2003	2004	2004	2005	Total	Accumulated
					2004	at June 2005
Total exports	83	137	70	116	66.4	66.0
I. Coffee	0	0	0	1	114.3	-
II. Coal	2	0	0	0	-	-
III. Ferronickel	38	80	37	82	110.1	121.3
IV. Petroleum and its by-products	0	6	6	0	-	-
V. Non-traditional exports	43	51	27	33	19.8	25.8
A. Agriculture/livestock sector	1	1	0	0	55.8	(5.1)
B. Industrial sector	42	50	26	33	18.6	27.9
Foods, beverages and tobacco	0	1	0	1	210.6	-
Yarn, thread and woven fabrics	2	1	1	0	(34.4)	(100.0)
Leather and leather goods	4	6	3	4	53.1	25.1
Chemical industry	10	6	4	4	(43.0)	(14.8)
Base metal industry	25	33	16	23	34.6	42.1
Machinery and equipment	1	1	1	1	88.2	(9.5)
Other industries 3/	1	1	0	0	25.8	-

1/ Does not include temporary or short-term imports, reimports and others.

2/ Provisional figures.

3/ Includes the mining sector.

Source: DIAN and DANE.

B2.6). In terms of the indicator, this occurs if foreign purchases of Chinese products take the place of other imports and/or the affected sectors offset the increase in imports with sales to other destinations<sup>2</sup>.

**TABLE B2.4**  
**TRADE BALANCE WITH CHINA**  
(MILLIONS OF DOLLARS)

	2003	2004	2004	2005
<b>Exports</b>	83	138	70	116
<b>Imports</b>				
Country of purchase	186	333	175	250
Country of origin	631	970	480	738
<b>Trade Balance</b>				
Country of purchase	(103)	(196)	(105)	(134)
Country of origin	(548)	(833)	(410)	(622)

(\*) At the writing of this report, figures on exports were available only to June.  
Source: DIAN and DANE.

**TABLE B2.5**  
**CHINESE GARMENT EXPORTS TO THE UNITED STATES IN THE MAIN LINES EXPORTED**  
**TO THE UNITED STATES MARKET BY COLOMBIA**

	Figures at June Annual Change (%)
Men and boy's long trousers, overalls, underpants and shorts in knit synthetic fibers	584
Men and boy's cotton knit shirts	339
Sweaters (jerseys), pullovers, cardigans, track suits, vests and similar items, including sous-pull, in knit synthetic fibers	259
Infant clothing and accessories, cotton knit	14
Men and boy's jackets in synthetic fibers, except knits	83
Women and girl's cotton skirts and pant-skirts, except knits	490
Brassieres, including knits	35
Women and girl's panties (including below waist styles), cotton knit	1560
Women and girl's panties (including below waist styles), in knit synthetic or man-made fibers	256
Men's shorts	357
Men's cotton trousers	435
T-shirts and knit jerseys, cotton	489
<b>Total</b>	<b>116</b>

Source: United States Department of Commerce.

<sup>2</sup> One example would be the growing percentage of textile and garment sales to Venezuela, which would compensate, in part, for the loss of market share in the United States.

However, in sectors such as those producing garments and leather goods, the BCR indicator has declined significantly in relation to 2004. The indicator of competitiveness in certain subsectors of the metallic products group and in the machinery and equipment sector has dropped sharply as well, particularly during the past year.

Gross production has lost momentum during 2005 in a number of sectors. This is particularly true of the textile, garment and leather industries, possibly because of the growth in Chinese exports to Colombia and to other markets. Part of this increase may have been aggravated by real appreciation of the peso against the currencies of competitor countries.

Moreover, the imports of these sectors account for a significant share of the domestic market. In some cases, they come to 50% of apparent domestic consumption (gross production + imports - exports). Certain textile fibers are a case in point. In the garment sector, the proportion is 21% and in leather and leather goods, 35% (Table B2.7). Hence, the growing share of imports from China may have affected domestic sales in these sectors.

Imports also account for a high proportion of domestic sales in other areas where there has been a sharp increase in the purchase of goods manufactured in China. For example, foreign purchases represent more than 50% of apparent domestic consumption in the chemical sector. However, China's share in these cases is still marginal or less important and, as such, the loss of force in national production (as occurred with chemicals) would not be related to competition with China. In the case of metallic products and machinery and equipment, more disaggregated assessments may be needed to pinpoint the segments where national production would actually compete with products imported from China, as seems to be the case with certain subsectors in the manufacture of electrical machinery.

**TABLE B2.6**  
**INDICATOR OF COMPETITIVENESS FOR SEVERAL INDUSTRIAL SECTORS (\*)**

CIU Description	Figures at June		
	2003	2004	2005
Yarn, thread, weaves and textile manufacturing	(0.19)	(0.08)	(0.05)
Garments	0.85	0.85	0.81
Tanned hides and leather apparel	0.52	0.56	0.44
Paper and publishing industries	0.00	0.02	(0.03)
Chemicals	(0.45)	(0.43)	(0.46)
Metallic products, machinery and equipment	(0.78)	(0.70)	(0.76)

(\*) Relative trade balance =  $(X-M)/(X+M)$ .  
Source: DIAN and DANE. Calculations by Banco de la República.

**TABLE B2.7**  
**SHARE OF IMPORTS IN THE TOTAL SUPPLY 1/ AND APPARENT**  
**CONSUMPTION IN COLOMBIA 2/**  
**(2002)**

Products	Imp./ (GP + Imp.)	Imp./ (GP + Imp. - Exp.)
Yarns and thread; textile fiber fabrics	24.6	33.9
Textile articles (except wearing apparel)	28.3	55.8
Knitted or crocheted items; wearing apparel	9.2	20.5
Leather and leather goods; footwear	19.9	34.7
Basic and prepared chemical products (except plastic and rubber)	33.5	49.7
Base metals and processed metallic products, except machinery and equipment	25.9	34.1
Machinery for general and special uses	50.7	75.3
Other machinery and electrical supply	59.6	86.1
Transport equipment	45.9	64.4

1/ Gross production + imports.

2/ Gross production + imports - exports.

**Imp.:** Imports.

**GP:** Gross production.

**Exp.:** Exports.

Source: DANE. Calculations by Banco de la República.

## THE CORRELATION BETWEEN PRODUCTIVITY, WAGES AND INFLATION\*

Mario Nigrinis\*\*

Output per worker is one measurement of intensity in use of the work factor. This measurement can increase with a rise in productivity or because workers have extend their workday (generally through overtime).

When the increase in output per worker is attributed to productivity, the marginal cost curve of the economy moves (outward). As a result, production grows without any change in the price of goods. In the factor market, there would be a wage increase (although, in the case of imperfect competition, this change is not necessarily one to one with the change in productivity). However, it would have no impact on the unit cost of labor, since it would be offset by the increased productivity of labor. This is an expansionary phase in the economic cycle where the increase in wages causes no inflationary pressure.

On the other hand, if the increase in output per worker is due to more hours worked, this can eventually translate into an indicator of inflationary pressure, depending on conditions in the labor market. Considering the costs involved in making adjustments and laying off workers, the work factor is generally not flexible. For this reason, when companies see their orders increase, their first move is to adjust production through the use of overtime. This raises their marginal costs and lowers their profit margins. If the new level of orders continues, companies have an incentive to raise their demand for labor. If the labor market is broad, they will have no problem taking on new employees and will reduce the use of overtime, lower their marginal costs and recover their profit margins. In this case, no increase in wages is expected, the unit cost of labor remains constant and there are no inflationary pressures. However, if the labor market is tight, companies will find it difficult to hire additional workers and will continue to rely on overtime to fill their orders. This will imply higher wages, which will not be offset by gains in productivity. The unit cost of labor increases, resulting in inflationary pressures.

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\* Some references of this Topic are: Woodford M.; Rotemberg, J. (1999). "The Cyclical Behavior of Prices and Costs", in *NBER*, working paper, No. 6909, and different Bank of England inflation reports.

\*\* The author is an expert who works with the Special Affairs Section of the Programming and Inflation Department at Banco de la República. The opinions expressed herein are solely those of the author and imply no commitment on the part of Banco de la República or its Board of Directors.



## II. MACROECONOMIC PERSPECTIVES

*The forecasts for economic growth in 2005 and 2006 have improved with respect to previous reports. The probability of demand-pull inflationary pressures in 2006 is greater.*

The prospects for world growth during the remainder of the year and in 2006 are favorable. However, the hike in oil prices poses more risk to growth and especially to inflation. The strength of the world economy and the rise in inflationary expectations indicate the policy on raising external interest rates is likely to continue. Even so, no drastic cutback in international liquidity is anticipated.

In this context, the external outlook will remain favorable for the emerging economies and for Latin America in particular. This situation will be reflected in high terms of trade, dynamic world demand and external capital flows to the emerging economies. Under these conditions, it is reasonable to expect the Colombian economy to retain its momentum of the last two years and perhaps to see less depreciation of the average exchange rate during 2006 with respect to predictions in earlier reports.

The forecast for Colombian economic growth in 2005 was raised on the basis of available information. During the remainder of the year and in 2006, growth should be fueled by domestic demand, with major increases in household consumption and investment.

As of this report, the likelihood of demand-pull inflationary pressures increasing as of 2006 is thought to be much greater. However, there are other factors that could offset some of this pressure. On the one hand, the forecasts point to low and declining tradable inflation. On the other, food inflation that year should decline substantially. Nevertheless, this last factor is particularly uncertain and forecast errors tend to be quite high.

### A. THE EXTERNAL CONTEXT AND THE EXCHANGE RATE

#### 1. General Conditions

The prospects for world growth during the remainder of 2005 and in or 2006 are favorable, although less than in 2004. The U.S. and Chinese economies

*The prospects for world growth during the remainder of the year and in 2006 are favorable.*

will continue to lead economic growth in 2006. Growth in the Euro zone and Japan is expected to be moderate. The possibility of even higher oil prices is the chief risk to world economic growth and inflation.

The outlook for U.S. economic growth remains promising (3.5% in 2005 and 3.3% in 2006) (Table 4). Despite the momentary drop caused by the outcome of the hurricane season, the increase in public spending during the reconstruction phase should compensate for the temporary slump in demand and production. Increased production, business financial strength and higher corporate benefits are the factors that will propel growth in 2006. On the other hand, the rise in oil prices is the main risk and could have even more of an impact on household consumption and inflation than it has up to now.

There are favorable prospects for Japanese economic growth, but far less so than for the United States. Domestic demand should continue to be the force behind economic growth at the end of this year and in 2006. Expectations for the Euro zone are far less than those for the U.S. and Japanese economies. Despite some improvement during 2005, economic growth in the Euro zone is still weak. The increase in world demand next year should continue to favor European exports and a rise in both

TABLE 4

GROWTH FORECAST FOR COLOMBIA'S MAIN TRADING PARTNERS  
(PERCENTAGE)

	Actual 2004	Forecast for 2005 at:		Forecast for 2006 at:	
		Jul-05	Oct-05	Jul-06	Oct-06
<b>Principal Partners</b>					
United States	4.4	3.5	3.5	3.3	3.3
Ecuador	6.9	3.3	2.9	3.2	3.0
Venezuela	17.3	6.0	8.0	4.3	5.5
<b>Other Partners</b>					
Euro zone	1.8	1.2	1.2	2.0	2.0
Japan	2.6	1.3	2.0	1.5	1.8
China	9.5	8.9	9.1	8.1	8.1
Peru	5.1	5.0	5.5	4.4	4.6
Mexico	4.4	3.6	3.1	3.5	3.4
Chile	6.1	5.8	6.1	5.2	5.5
Argentina	9.0	6.7	7.4	4.1	4.5
Brazil	5.2	3.1	3.3	3.5	3.5
Bolivia	3.6	3.4	3.3	3.3	3.1
Developed countries	3.9	3.0	3.0	3.0	3.0
Developing countries	10.7	4.9	5.6	4.0	4.5
<b>Total Trading Partners (*)</b>	<b>5.8</b>	<b>3.8</b>	<b>4.3</b>	<b>3.6</b>	<b>3.5</b>

(\*) Balance of payments calculation, according to non-traditional exports.  
Source: Datastream-Concensus.

investment and consumption. However, a heavy tax burden, labor constraints and a lack of structural reforms make it difficult to predict any major medium or long-term growth for the industrialized economies in the Euro zone (Table 4).

*The forecasts for oil prices are up again...*

Growth continues to be good in the Asian countries, propelled largely by the Chinese economy, which is expected to increase by 9.1% in 2005 and 8.1% in 2006. (Table 4). As mentioned in the last report, the moderate appreciation ruled by Chinese authorities (three months ago) has been interpreted as the onset of gradual flexibility in the exchange rate. However, no major changes on this front are anticipated during the rest of the year.

Earlier reports contained no indication of an important impact on world economic growth and inflation in 2006 due to high oil prices. This scenario was based on the assumption that there would be no additional increases in the price of crude, (and, in fact, predicted a downward revision), which has not been the case. The forecasts for oil prices are up again. According to the International Energy Agency (IEA), the price of West Texas Intermediate (WTI) is expected to be around US\$64 a barrel for the remainder of the year and in 2006 (as opposed to US\$58 forecast three months ago). These predictions are based on strong world demand, a weak supply from countries outside the Organization of Petroleum Exporting Countries (OPEC) (such as Mexico and Russia), and low surplus capacity in the OPEC countries. There also are continuing geopolitical risks, such as the insurgency in Iraq and the potential for problems in countries such as Nigeria and Venezuela, all of which elevate risks on the crude oil market.

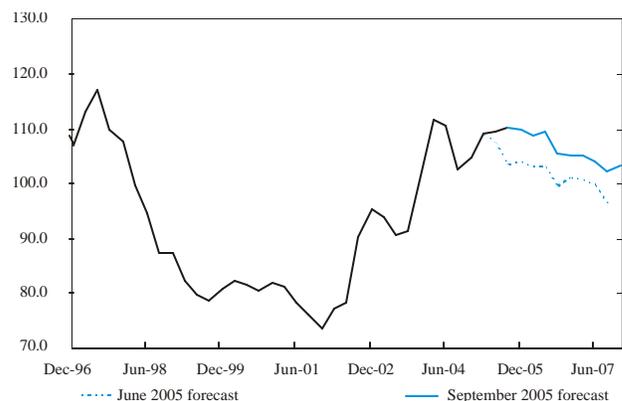
*... the same as the prices of other commodities exported by Colombia.*

However, commodity price forecasts, without petroleum, have improved compared to what they were three months ago. Strong external demand, especially from China, has kept raw material prices relatively high (*Industrial Raw Materials*), particularly metal prices. According to the *Economist Intelligence Unit*, the World Commodity Index will be up by 2.1% in 2005, which is above what was anticipated three months ago. (-1.9%), followed by a moderate drop in 2006 (-2.2%), which is less than the forecast three months ago (-3.6%) (Graph 48).

Higher oil prices have raised the risk to growth and particularly the risk to inflation. Although inflationary pressures have been moderate up to now, the United States and other countries have begun to see an increase in expectations of inflation, as reflected in the recent rise in long-term interest rates.

GRAPH 48

COMMODITY PRICE INDEX, WITHOUT PETROLEUM (WCF)



Source: Economist Intelligence Unit.

*The strength of the world economy and the increase in expectations of inflation indicate the policy on higher external interest rates is likely to continue.*

The strength of the world economy and the increase in expectations of inflation indicate the policy on higher external interest rates is likely to continue. In this context, the Federal Reserve would maintain its policy of measured rate increases, placing the reference rate at 4.25% by the end of 2005 and 4.75% in 2006. This exceeds the prediction in the last report (4.0%).

Despite higher external interest rates, no drastic cutback in international liquidity is expected. There are two reasons why. First, the changes in interest rates have been moderate and consistent with what the markets expect (barring any excessive inflationary pressures in the United States). Secondly, the abundance of international liquidity is explained by a considerable degree of surplus world savings originating in China, Japan, the oil-exporting countries and even Europe. These surpluses appear to be the result of structural factors that are unlikely to disappear any time soon (i.e. high rates of savings, the export bias in China and low rates of investment in Southeast Asia, Japan and the oil-exporting countries)<sup>15</sup>.

The foregoing rules out the possibility of any major outflow of capital from the emerging economies during the remainder of 2005 and in 2006, including those of Latin America. However, the rise in external rates could be accompanied by a moderate upswing in country-risk premiums for Latin America.

In this context, the external outlook for the Latin American countries, particularly Colombia, will continue to be favorable. Terms of trade will remain high, especially for oil-exporting countries such as Colombia. World growth will allow for an increase in exports, and the flow of capital into the region will continue. Although there are significant risks, the region (including Colombia) is now less vulnerable to an abrupt halt in capital flows.

The growth forecast for Colombia's trading partners (weighed on the basis of non-traditional exports) is 4.3% for 2005 (as opposed to 3.8% in the last report) and 3.5% for 2006 (Table 4). The prospects for growth are up, especially for Venezuela, due to higher oil prices. However, less growth is expected in Ecuador because of the slump in oil production and the country's social and political problems. In addition, the fact that these economies are so dependent on oil makes the prospect of sustainable long-term growth more uncertain.

Even so, there are still major risks. As mentioned earlier, additional and unforeseen hikes in the price of oil, due to an excessively dynamic world demand or negative supply shocks, probably would mean higher inflation and further increases in external interest rates, thereby slowing world economic

*Despite higher external interest rates, no drastic cutback in international liquidity is expected.*

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<sup>15</sup> *The Economist*, September 24, 2005.

growth. The impact on the emerging economies possibly would be felt in the form of less capital flows and less growth in exports. However, for oil-exporting countries such as Colombia, the effect is less clear and might be neutral (or even positive).

Growth of the world economy in 2006 will continue to exhibit important macroeconomic imbalances. The possibilities for adjustment are limited (the fiscal and current account deficits in the United States could increase in 2005 due to the effects of the hurricanes and higher oil prices). This spells uncertainty about just how sharp an adjustment the world economy will have to contend with and when it will begin. However, the surplus savings provide some assurance that the adjustment could come later and be gradual. Even so, the possibility of a sharp change exists, especially because corrections in the U.S. imbalances have been postponed.

A large part of the growth in household consumption in the United States is founded on the real estate boom. However, this boom could crumble in the face of a major interest rate hike, which would have a destabilizing effect on economic growth in the United States and worldwide.

Finally, it is impossible to rule out increased uncertainty in Latin America associated with the new cycle of elections, as has been the case on other occasions. However, the external outlook and the improvement in macroeconomic basics could help to relieve some of this uncertainty.

## 2. Balance of Payments Forecasts for Colombia

The prices of Colombia's main exports have improved as a result of the growth expected in external demand next year and the higher forecasts for oil prices (Table 5). The current account deficit for 2005 is expected to be 1.0% of

*For oil-exporting countries such as Colombia, the effect is less clear and might be neutral (or even positive).*

TABLE 5

### INTERNATIONAL PRICES

	Average 2004	Projection for 2005		Projection for 2006	
		Current <sup>1/</sup>	Previous <sup>2/</sup>	Current <sup>1/</sup>	Previous <sup>2/</sup>
Coffee (ex-dock) (dollars/pound)	0.9	1.2	1.2	1.1	1.1
Oil (dollars/barrel)	37.3	47.9	43.9	54.4	43.9
Coal (dollars/ton)	36.1	47.9	44.5	47.9	44.5
Nickel (dollars/pound)	2.3	2.6	2.6	2.3	2.3
Gold (dollars/troy ounce)	409.3	433.8	423.1	452.7	423.6

<sup>1/</sup> Estimated balance of payments at September 2005.

<sup>2/</sup> Estimated balance of payments at June 2005.

Source: Banco de la República.

*The forecast for economic growth in 2005 was raised on the basis of available information.*

GDP and average appreciation is forecast at 11.5%, which means the representative market exchange rate (TRM) will be similar to its current levels.

The balance of payments forecast for 2006 hinges on the assumptions surrounding capital flows and terms of trade. Assuming the external context is favorable, terms of trade should be high and Colombia would continue to receive an inflow of capital, as would other emerging economies. The flow of foreign direct investment (FDI) is expected to be similar (in net terms) to the amount in 2005, and new external borrowing by the public sector should be positive (unlike 2005). This scenario, as a whole, would result in less of a tendency towards average depreciation of the exchange rate in 2006 than was anticipated in earlier reports.

## B. THE DOMESTIC CONTEXT

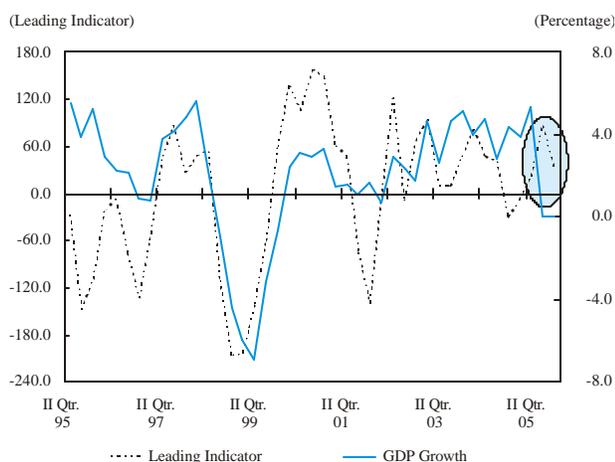
### 1. The Economy in the Second Half of 2005

The prospects for economic growth during the remainder of 2005 are positive. In fact, on the basis of available information, the growth forecast for 2005 was raised from 4.0% and 4.2% to a range between 4.5% and 4.7%. Accordingly, the figure for the first six months of the year (4.5%) could increase slightly during the second half. The leading indicator of economic activity accelerated between the second and third quarters of 2005, and slowed during the fourth quarter (Graph 49)<sup>16</sup>

Growth will continue to be propelled by domestic demand, primarily household consumption, which is expected to accelerate in the second half of 2005. Broad liquidity and the possibility of household financing (as reflected by considerable momentum in consumer credit) should contribute to this outcome, along with low real interest rates, less unemployment, higher real available income and the growth in consumer confidence, which has risen steadily throughout the year. This is according to the indicators in Fedesarrollo consumer survey. In effect, the ave-

GRAPH 49

LEADING INDICATOR OF ECONOMIC ACTIVITY AND GDP GROWTH



Source: DANE. Calculations by Banco de la República.

<sup>16</sup> This indicator is constructed with variables such as economic activity and orders (from the Fedesarrollo BOP), cement production, the real industrial production index, manual worker employment in industry, real growth in cash, demand for gas and energy, imports of intermediate and capital goods, and banks loans.

rage of the three indexes in that survey (consumption, conditions and expectations) suggests that household consumption will increase during the third quarter of the year (Graph 50).

On the other hand, the increase in general government consumption will continue to play a role in good GDP growth. At present, 5% growth is expected for the year (3% in the previous report). This is backed mainly by the comfortable financial position of regional and local governments.

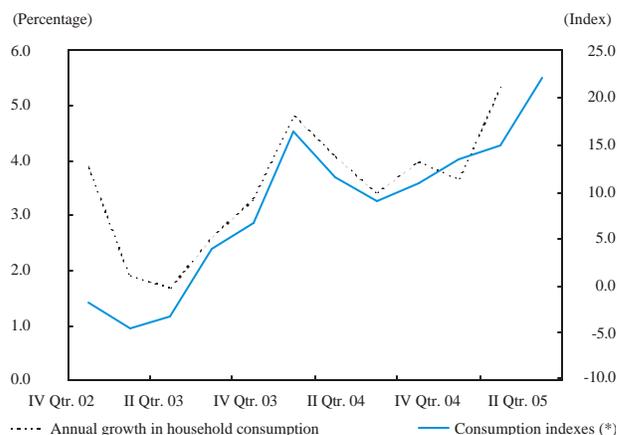
As to private investment (without civil works), a slightly lower annual growth rate is anticipated in the second half of the year with respect to the first six months, mainly due to a higher base of comparison in the second half of 2004. Somewhat of a slowdown in the construction of civil works is predicted, while the most dynamic investments will continue to focus on the purchase of machinery and equipment and transport equipment.

The present report anticipates a loss of export momentum during the second half of the year, as indicated by the Bank's projection models. Less annual growth in non-traditional exports also would be explained by a high base of comparison with respect to sales made in the second half of 2004 to countries such as Venezuela and possibly to the effect of real appreciation of the exchange rate during the last two years. In addition, several industrial sectors are expected to face increased international competition from the Asian countries. And, certain traditional exports could see real minor reductions in the last six months of 2005, because of a high base of comparison. Coffee is an example.

In view of the foregoing, real export growth would amount to 7.7% in 2005, while imports would increase by nearly 25.0%. This implies a negative contribution to economic growth in 2005 on the part of net external demand (Table 6).

The non-tradable sectors will remain the driving force of growth. The second half of the year is expected to see building and home construction accelerate, along with commerce and transport (Graph 51 and Table 7). On the other hand, the tradable sectors will be influenced by a slowdown in mining and agriculture/livestock. The former will forfeit some of its momentum because

ANNUAL GROWTH IN HOUSEHOLD CONSUMPTION AND CONSUMPTION INDEXES - FEDESARROLLO



(\*) Average of the consumer confidence index (CCI), the consumer expectation index (CEI) and the index of economic conditions (IEC).  
Source: Fedesarrollo. Cálculos Banco de la República.

*Growth will continue to be propelled by domestic demand.*

TABLE 6

**REAL GDP FORECASTS BY TYPE OF EXPENDITURE  
(PERCENTAGE)**

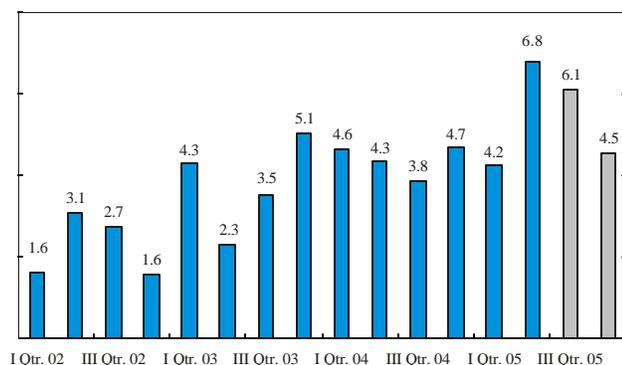
	2004	2005						2006	
		I Qtr.	II Qtr.	III Qtr.	IV Qtr.	I Half	II Half		Año
<b>Final Consumption</b>	<b>3.9</b>	<b>3.6</b>	<b>6.0</b>	<b>5.2</b>	<b>4.8</b>	<b>4.8</b>	<b>5.0</b>	<b>4.9</b>	<b>5.2</b>
Household	4.1	3.7	5.3	5.4	5.4	4.5	5.4	5.0	5.3
Government	3.3	3.4	8.0	4.8	2.9	5.7	3.8	4.8	5.0
<b>Gross Capital Formation</b>	<b>12.6</b>	<b>16.0</b>	<b>24.7</b>	<b>32.8</b>	<b>17.0</b>	<b>20.4</b>	<b>24.4</b>	<b>22.6</b>	<b>21.7</b>
Gross fixed capital formation (GFCF)	13.3	17.5	22.0	15.4	8.7	19.8	11.9	15.6	14.6
GFCF without civil works	22.5	12.8	25.3	16.3	11.7	19.0	13.9	16.3	15.8
Civil works	(19.1)	46.9	5.4	10.3	(5.8)	24.0	1.6	11.7	8.0
<b>Domestic Demand</b>	<b>5.4</b>	<b>5.8</b>	<b>9.4</b>	<b>10.5</b>	<b>7.3</b>	<b>7.6</b>	<b>8.9</b>	<b>8.2</b>	<b>8.8</b>
<b>Total Exports</b>	<b>9,9</b>	<b>13,0</b>	<b>7,8</b>	<b>6,2</b>	<b>4,5</b>	<b>10,3</b>	<b>5,3</b>	<b>7,7</b>	<b>0,1</b>
<b>Total Imports</b>	<b>17,3</b>	<b>22,7</b>	<b>28,5</b>	<b>29,5</b>	<b>18,5</b>	<b>25,7</b>	<b>23,8</b>	<b>24,6</b>	<b>18,8</b>
<b>Gross Domestic Product</b>	<b>4,0</b>	<b>3,9</b>	<b>5,3</b>	<b>5,4</b>	<b>4,1</b>	<b>4,6</b>	<b>4,8</b>	<b>4,7</b>	<b>4,5</b>

Source: DANE. Calculations and projections by Banco de la República.

GRAPH 51

**NON-TRADABLE GDP**

(Percentage)



Source: DANE. Calculations by Banco de la República.

of the normal slowdown in oil production, which is not likely to be offset by the increase in coal production. The rate of growth in agriculture and livestock should ease somewhat, primarily because coffee in the last quarter faces a higher base of comparison that coincides with the start of the 2005/2006 coffee year (Table 7).

Industrial manufacturing is the main source of uncertainty in the tradable sectors as a whole, having exhibited ambivalent signs during the second half of 2005. In terms of the DANE monthly manufacturing sample, accumulated growth between July and August (2.8%) accelerated slightly with respect to the first six months (1.9%). The forecast for industrial growth in the second half of the year is 3.5% (Graph 52 and Table 7).

## 2. Prospects for 2006

Several fundamental factors point to continued economic growth similar to the pace observed during the last two years. This is due to better external



**REAL GDP FORECASTS BY SECTOR  
(PERCENTAGE)**

	2004	2005						
		I Qtr.	II Qtr.	III Qtr.	IV Qtr.	I Half	II Half	Year
Agriculture, hunting, forestry and fishing	2.5	3.2	2.8	3.2	2.6	3.0	2.9	3.0
Mining and quarrying	2.2	5.0	1.7	4.2	(0.2)	3.3	1.9	2.6
Electricity, gas and water	2.5	0.8	4.2	3.5	3.0	2.5	3.2	2.9
Industrial manufacturing	4.7	(0.9)	4.7	3.3	3.7	1.9	3.5	2.7
Construction	9.7	10.7	7.8	5.9	1.4	9.2	3.6	6.2
Buildings	30.4	(2.4)	8.9	4.0	5.0	3.0	4.5	3.8
Civil works	(19.3)	47.6	5.4	10.3	(5.8)	24.2	1.6	11.8
Commerce, repairs, restaurants and hotels	5.9	7.7	10.2	10.2	8.6	9.0	9.4	9.2
Transport, storage and communication	5.0	3.5	5.6	6.2	5.7	4.5	6.0	5.2
Financial establishments, insurance, real estate and company services	4.3	(2.5)	9.8	2.6	1.7	3.4	2.2	2.8
Social, community and personal services	2.7	2.8	6.3	4.8	2.9	4.5	3.8	4.2
Financial brokerage services, measured indirectly	12.1	(13.7)	51.6	4.1	0.0	11.4	2.1	6.5
Value added subtotal	3.8	3.3	4.7	4.7	3.6	4.0	4.2	4.1
Taxes minus subsidies	7.1	12.0	12.9	15.3	11.0	12.5	13.1	12.8
<b>Gross Domestic Product</b>	<b>4.0</b>	<b>3.9</b>	<b>5.3</b>	<b>5.4</b>	<b>4.1</b>	<b>4.6</b>	<b>4.8</b>	<b>4.7</b>

Source: DANE. Calculations and projections by Banco de la República.

conditions anticipated for 2006, as opposed to the prediction in earlier reports, and the vigor of domestic demand.

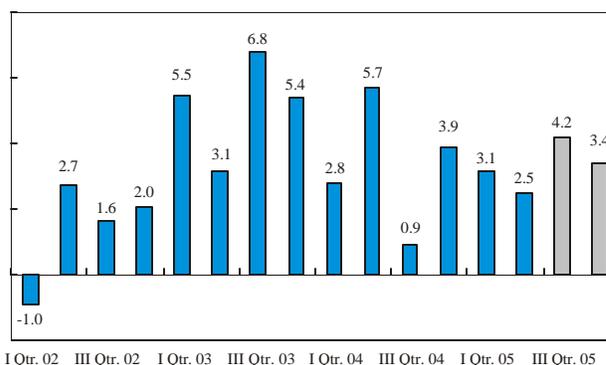
As indicated earlier, the terms of trade forecast for Colombia in 2006 were raised in relation to those registered in the first half of this year. Moreover, world demand should continue to grow at a good pace, risk premiums should stay relatively low (and could even increase with respect to current levels) and no outflows of capital are anticipated.

Barring any major liquidity or financial constraint, growth will be fueled by domestic demand, more so than in 2004 and 2005, due to important increases in household consumption and investment (Table 6). In contrast, exports are not expected to make much of a contribution. They should increase at rates below those for GDP, due to less growth of the country's trading partners in 2006 (compared to growth in 2005) and the trend in the real exchange rate. The predictions on

GRAPH 52

**TRADABLE GDP  
(ANNUAL GROWTH)**

(Percentage)



Source: DANE. Calculations by Banco de la República.

growth in government consumption and civil works in 2006 are 5% and 8%, respectively.

## C. INFLATION FORECASTS

### 1. External Assumptions

*The risk of higher inflation has increased in the United States....*

The third quarter saw changes in the world economic outlook with respect to forecast in the June report. The most important change was the additional and unexpected jump in the oil prices from US\$58 to US\$64 a barrel.

The new forecasts necessitate acknowledging the increased risk of higher global inflation and less growth. These effects would be felt primarily in the developed economies, which depend heavily on oil imports, and in the emerging countries that do not produce oil.

*...and will prompt the Fed to raise interest rates to 4.75% in 2006.*

As to international financial terms, the increased risk of inflation surely would lead to interest rates in excess of those foreseen in the June report. The markets have begun to raise their forecasts on this front. In this report, the short-term rate anticipated for the United States in 2006 was raised to 4.75%, which is 75 bp above the last prediction.

Should these increases accelerate the rise in long-term interest rates, the flow of financing to emerging countries might be jeopardized if the markets have not discounted those adjustments. However, despite the new obstacles in the offing for world growth, the opinion at the writing of this report is that we have yet to reach the breaking point in external conditions, at least as far as Colombia is concerned. In fact, the forecasts on terms of trade for Colombia in 2006 have increased with respect to the last report.

Probably the greatest uncertainty concerns available international financing for Colombia and other emerging countries. Nevertheless, the changes anticipated in interest rates would place them within a moderate range, historically speaking. Furthermore, the Colombian government is virtually financed with foreign currency for the coming year. The only pending disbursements are multilateral, which are considered safe sources.

*However, no fundamental change in the flow of capital to Colombia is anticipated.*

On the other hand, as indicated in previous chapters, surplus world savings of a structural nature would be the force behind capital flows. These would not disappear easily, even with the increase in rates. Although the macroeconomic imbalances in the United States continue to pose a risk, and real estate prices in that country could wind down, no sharp change on these fronts is expected, at least in 2006.

As such, the forecasts in this report are for net foreign investment in 2006 similar to what was expected for all of 2005. Although high in comparison with net foreign investment in the last five or six years, it is less than the record figures seen in the latter half of the nineties. As a whole, these factors point to less pressure for depreciation of the exchange rate in 2006 than was anticipated three months ago.

*Less pressure for exchange rate depreciation is forecast for 2006.*

## **2. Domestic Assumptions**

An important domestic change noted in this report concerns the higher forecasts for growth in the second half of 2005 and in 2006. The current inflation forecasts assume 4.7% growth in 2005. This implies 4.8% growth in the second half of the year, up slightly from what was measured by DANE for the first six months (4.6%).

*The assumption used in the inflation forecasts is 4.7% growth in 2005 and 4.5% in 2006.*

No major changes in these domestic and external conditions are envisaged for 2006. The factors that pose the most risk originate on the external front. However, as argued in the previous section, their net impact should not be negative and 4.5% growth is expected next year. Domestic demand would be the primary driving force of growth during the remainder of 2005 and in 2006.

A major difference between this report and the one in June concerns the role of private consumption in the coming quarters. The previous forecasts in this respect were conservative, given a poor historic record as of late. However, the upswing in the second quarter, accompanied by additional improvements in labor conditions and favorable lending terms make it feasible to expect more of an increase in this segment of demand.

*Private consumption will play a more important role in the coming quarters.*

Thanks to the improvement in current and predicted growth, the output gap is much narrower with respect to the estimates in earlier reports, which reiterated the tremendous uncertainty surrounding this indicator and noted the risks were towards less of a gap. According to the analysis in Section E, Chapter I herein, these risks materialized with a sharp acceleration in growth during the second quarter and with increases in the forecasts for 2005 and 2006, among other factors.

## **3. Inflation Forecasts**

As is customary, the inflation forecasts in this report are based on the transmission mechanism model (TMM). Also, as on other occasions, short-term inflation forecasts were used for the first two quarters. These are obtained with various satellite models that have more prediction power for short-term horizons.

*With respect to the estimates in earlier reports, the output gap has narrowed.*

*Inflation at  
December 2005  
should be within the  
target range set by  
the BDBR.*

Readers are to be reminded, as always, that the model's medium and short-term forecasts take into account an endogenous interest rate. In other words, these are the rates obtained when the monetary policy serves to guarantee the long-term inflation target, which is 3% in the Colombian case (the middle of the 2% to 4% range). Also, the central model is calibrated so changes in the stance of monetary policy will have the greatest possible effect on inflation within a six-quarter horizon. The impact of monetary policy changes is not a great in horizons of three months or less, although these adjustments can effect expectations of inflation.

The main results of the model are summarized in Table 8. . According to the short-term satellite models, total consumer inflation would be 5.2% at December 2005, which is consistent with the BDBR target range (between 4.5% and 5.5%). However, this is assuming a major change in the specific inflation forecast with respect to the one in the previous report (4.7%). Contrary to what was anticipated in June, the current forecast also contemplates a growing trend in total inflation, at least in the short term.

The fundamental reason for this change is the new pattern envisaged for annual food inflation as a result of the trend in perishables between July and September. The models used by the Bank now anticipate a slight increase in annual inflation for this group (perishables and non-perishables) throughout the rest of the year. The rate should be 6.8% at December. This contrasts with the downward trend suggested in earlier

TABLE 8

**CENTRAL MODEL FORECASTS (TMM)  
(PERCENTAGE)**

	Total Consumer Inflation	Food Inflation	Non-Food Inflation	Non-food Inflation			Output Gap
				Non-tradables	Tradables	Regulated	
Sep-05	5.0	6.3	4.4	4.6	2.0	8.9	(0.5)
Dec-05	5.2	6.7	4.5	4.7	2.1	8.9	(0.4)
Mar-06	4.6	4.6	4.6	5.0	2.0	8.3	(0.1)
Jun-06	4.3	4.0	4.5	5.0	1.8	7.9	0.2
Sep-06	4.0	3.3	4.3	4.8	1.4	9.2	0.3
Dec-06	3.7	3.5	3.9	4.6	1.1	8.8	0.4
Mar-07	4.2	4.7	4.1	4.6	1.7	8.4	0.3
Jun-07	4.0	4.1	4.0	4.5	1.9	7.7	0.2
Sep-07	4.0	4.0	4.0	4.4	2.2	7.4	0.0

Source: Banco de la República.

reports. However, adverse surprises in complying with the target cannot be ruled out, since these prices are extremely volatile.

Nevertheless, the increase in food inflation should be temporary. Accordingly, the break in the trend in annual food inflation, which was expected as of September or October 2005, would be postponed until the first quarter of 2006 (See Chapter I).

In contrast, there were no major changes in the forecasts for non-food inflation at December 2005. The prediction is 4.5% at present, which is slightly more than it was three months ago (4.4%). The bulk of the change is explained by an increase in non-tradable inflation to 4.8%, as opposed to 4.5% in the previous report. This being the case, the remainder of the year is expected to see no significant changes in non-food inflation (one of the three core inflation indicators). It should end 2005 near the bottom of the target range.

Given an active monetary policy, the TMM forecasts declining inflation for 2006. The central path of the TMM predicts 3.4% for December 2006, which is less than the forecast in the last report (4.1%) (Table 8). The lower forecast and the decline in total inflation are due entirely to turnaround in food inflation as of the first quarter. In general, all the models used by the Bank, including the TMM, indicated this break would come, due to relatively high prices for perishable foods in 2005.

From the standpoint of the country's monetary policy, the most relevant inflation is core inflation. In our case, this pertains to non-food inflation. As it did three months ago, the central model predicts annual inflation will decline throughout the year and is should be 3.9% at December. This is down from the prediction in the June report (4.2%) (Table 8).

According to the channels for monetary policy transmission, the downward trend in non-food inflation envisaged for next year rests on the anticipated behavior of the exchange rate and its impact on tradable inflation (excluding regulated goods and services). The annual rate of inflation forecast for this sub-basket is just 1.1% at December 2006, which is less than the figure in the last report (Table 8). This reduced forecast is due to less anticipated pressure for depreciation in 2006, as analyzed in earlier sections of this report.

However, the lower forecasts for non-food inflation involve an increase in non-tradable inflation (excluding regulated goods and services). On this occasion, inflation for this sub-group is expected to be 4.6% at December 2006, following an earlier prediction of 4.3%. More importantly, the trend

*The increase in the inflation forecast during 2005 is explained by higher food inflation...*

*...which is likely to be temporary and to decline in the first quarter of 2006.*

*Given an active monetary policy, the TMM forecasts declining inflation for 2006...*

*... however, the non-food inflation forecasts have increased due to less of an output gap, which should be in positive terrain by early next year.*

described by the TMM central path is now growing, even though earlier forecasts anticipated just the opposite.

With respect to regulated goods and services, the forecasts for 2006 are higher because of fuel and transportation prices. As indicated in earlier sections of this report, the anticipated price of oil in 2006 was higher with respect to the price used in the June report. These increases will necessarily be reflected in higher adjustments in domestic prices during 2006, and probably in 2007. When regulated goods and services are added to the basket of tradables and non-tradables, the inflation forecasts for the expanded baskets at December 2006 are 2.3% and 5.3%, respectively

The reduction in the output gap envisaged for this year and the next explains the changes in non-tradable inflation. As noted in Chapter I, a new estimate of the average output gap in 2005 (-0.6%) was obtained with the latest figures on economic activity (as opposed to -1.4% in the previous report). For the third and fourth quarters of 2005, this level would denote a gap of -0.5% and -0.4%, respectively (Table 8).

Based on these numbers, the TMM now predicts the gap will narrow faster in the medium and long-term than was foreseen in the June report. In fact, as of the first half of next year, it should be in positive terrain, which was not the case in previous fiscal years. The average for 2006 would be 0.14%. Three months ago, the estimate was -0.7%. This reduction is coherent with the good pace of economic growth anticipated for next year.

Hence, there are several opposing forces at play with respect to non-food inflation in 2006.

- Thanks to less pressure for exchange rate depreciation, the main downward trends will come - as they have up to now - from the price of tradables.
- Likewise, the inflation expectations measured by surveys and those obtained with the central model tend to decline for next year. This will help to lower tradable inflation and to slow the increase in non-tradable inflation.
- On the other hand, demand will exert upward pressure because of the narrower output gap estimated for 2005 and the forecast for 2006. This being the case, non-tradable inflation will tend to rise throughout the year and remain high in relation to the long-term target for 2007. This is perhaps the most important change in the inflation forecasts on this occasion. Prior to the June report,

non-tradable inflation was expected to remain stable or to drop slightly.

- International fuel prices now exert more pressure on non-food inflation for 2006 and 2007.

In short, the forecast in this report is for a substantial increase in the likelihood of demand-pull inflationary pressures in the years ahead, given the rise in actual and projected economic growth. Added to this are the increases in predictions on fuel and transport within two-year horizons.

Under normal circumstances, these two circumstances would be enough to push up the long-term trend in inflation and to raise the forecasts. Of all the determinants of inflation, demand-pull pressure is the one most likely to influence long-term trends. However, the exercise shows there are two factors that offset these upward pressures, at least on total inflation. The first is a low and declining rate of tradable inflation. The second is a considerable reduction in food inflation. There is a great deal of uncertainty concerning the latter and the forecast errors are usually high.

#### **4. Risk Balance**

Graph 53 shows the central path of the total consumer inflation forecast and its probability distribution, which illustrates the degree of uncertainty surrounding this prediction. Its construction takes into account the main factors that might explain a significant deviation in the final results, compared to those presented in the central forecast.

In general, the risk is towards higher inflation than the forecast in the central scenario. There are several reasons why.

- It is very possible that growth in domestic demand during the remainder of 2005 will exceed what is envisaged in the central path of the forecast. This would imply a narrower output gap in 2005 than the one anticipated in the report, meaning that demand-pull inflationary pressures might be underestimated in the current path.
- The pattern of non-tradable inflation (excluding food and regulated goods and services) is influenced considerably by inflation in rentals, which is a factor the model might not capture appropriately. Inasmuch as there are several indications that rental inflation may be on the rise and that its inertia is high, the best approach is to give the central forecast an upward bias.
- Given the recent trend, food prices could change beyond what is foreseen in the central scenario.

*The likelihood of demand-pull inflationary pressures in the years ahead has increased substantially.*

*Low tradable inflation and a drop in food inflation during 2006 could offset this.*

*In general, the risk is towards higher inflation than the forecast in the central scenario.*

*The risk with respect to the exchange rate is towards less depreciation than was contemplated in the base scenario.*

- In the central forecast scenario, the downward trend in tradable inflation is explained largely by the prospect of limited pressure towards depreciation in 2006. The output gap has little to do with it. However, if for some reason the model does not fully capture the effect of demand-pull pressures, the forecast might be overly optimistic.
- On the contrary, in several alternative scenarios of the balance of payments model, the risks to the exchange rate are towards less pressure for depreciation than what was contemplated in the base scenario. In this case, tradable inflation would be less than what is predicted in the central path, particularly in horizons beyond one year.
- The expectations of inflation might exceed those used to develop the forecast, particularly if inflation at the end of 2005 is near or above the BDBR target range. As we have seen, there are risks in this direction because of food inflation.

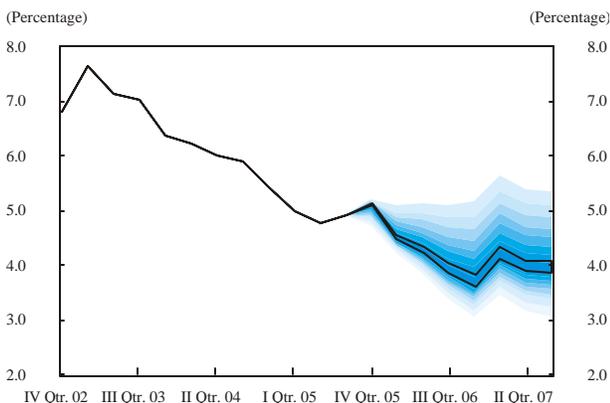
Given the foregoing results, the inflation target for 2005 is likely to be met (Graph 53). However, it is now more conceivable that inflation will be somewhere in the upper part of the target range, due to the risk weighing on food inflation.

*Expectations of inflation may be higher if food inflation is high at the end of 2005.*

In the medium-term, the probability of downward inflation remains high, although less so than the prediction in the June report. Although the central path places total inflation below 4% for the end of 2006 (3.7%), the likelihood that it actually will be below that rate is relatively limited (only 37%). Consequently, in this report, the risk balance has a sharp upward bias (given

GRAPH 53

PROBABILITY DISTRIBUTION OF THE INFLATION FORECAST (FAN CHART)



Source: Calculations by Banco de la República.

ACCUMULATED PROBABILITY OF ACTUAL CONSUMER INFLATION IN THE RANGE INDICATED

Inflation	Probability (%)							
	2005 Dec.	2006				2007		
		Mar.	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.
Above 6.0	0.0	0.2	1.4	2.5	4.3	9.6	5.9	5.1
Below 6.0	100.0	99.8	98.6	97.5	95.7	90.4	94.1	94.9
Below 5.5	94.5	96.2	92.5	91.7	89.5	79.5	86.2	87.5
Below 5.0	29.0	72.4	74.0	78.6	78.0	62.2	72.2	74.4
Below 4.5	0.1	15.3	38.8	55.6	60.2	39.3	52.0	54.9
Below 4.0	0.0	0.0	3.5	25.1	36.9	14.8	27.8	31.3
Below 3.5	0.0	0.0	0.0	2.5	12.2	2.0	7.6	10.4



the low prediction for food inflation and the considerable uncertainty surrounding this forecast and the output gap estimate).

It is important to remind our readers that these forecasts were obtained under an active monetary policy. In other words, intervention rates are adjusted to ensure long-term compliance with the inflation target. As to adjustments in the rates forecast by the model, the fact that they are quite low with respect to historic averages continues to be taken into account. Also, on this occasion, it is assumed the economy is growing faster than what was envisaged in the previous report, at a time when the GDP would be near its potential long-term level and there is less surplus production capacity. As a result, there is more risk of demand-pull inflationary pressures to sway inflation from its targets.

*In the forecasts, the interest rates are adjusted to ensure the inflation target is met.*

## SEVERAL FEATURES OF THE CHANGE IN DEMAND IN THE COLOMBIAN ECONOMY DURING THE LAST DECADE

Andrés Mauricio Velasco \*

The Colombian economy is going through an expansionary phase and 2005 likely will be the third consecutive year to see growth above 4.0%. Given projected growth for 2005, several variables will, for the first time, be similar to those of the mid-nineties. Consumption per capita is a case in point. Its highest level was in 1997 (Graph B4.1).

**GRAPH B4.1  
CONSUMPTION PER CAPITA**



Source: DANE and DNP. Calculations by Banco de la República.

Graphs B4.2 and B4.4 show some of the principal changes in the Colombian economy since 1990 with regard to the structure of demand. One of the most significant is the decline in household consumption as a share of GDP, coupled with the growing importance of public consumption (Graph B4.2). For the most part, this reflects the increase in the size of the State, as a result of mandates originating with the 1991 Constitution. The largest primary public spending hikes between 1991 and 2003 involved transfers to the territories and pensions.

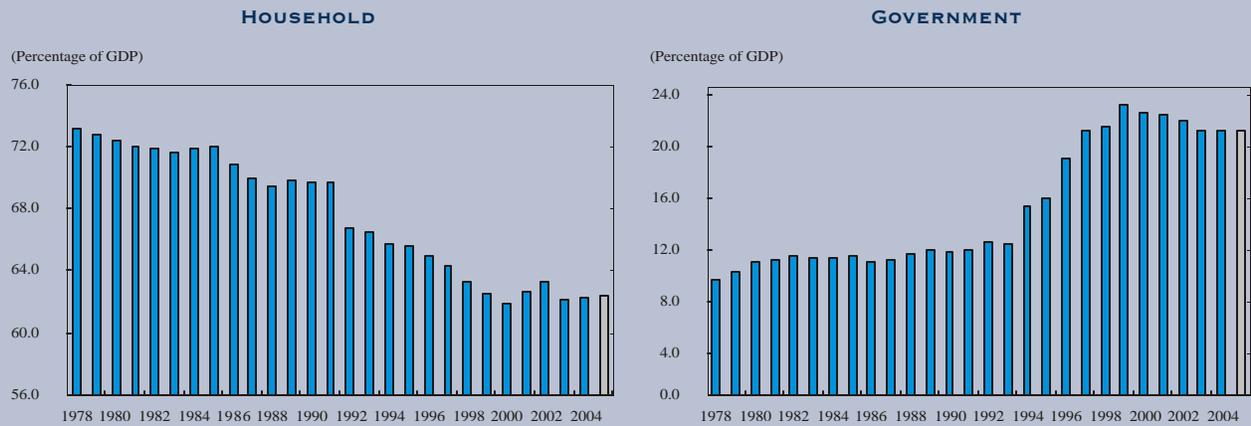
On the other hand, the rate of investment as a share of GDP has recovered steadily following the collapse in 1999. In fact, it could be as high as 22% in 2005, which is well above the historic average (18%). However, the upswing in investment is different than

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it was in the mid-nineties. Most investment is now in machinery and equipment and, to a lesser extent, in construction, which was the strongest item during the investment boom in the nineties (Graph B4.3). The growing importance of machinery and equipment in the current boom could have positive implications from the standpoint of technological change being incorporated into capital and the growth in productivity.

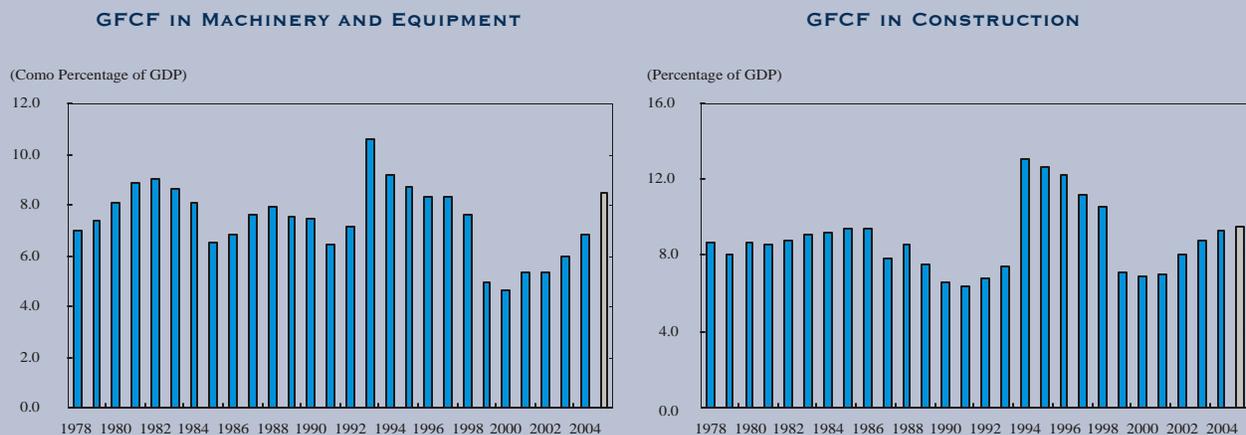
The current surge in the Colombian economy also is characterized by less of a current account deficit that what was generated, on average, during the boom in the nineties (Graph B4.4). This is explained by the increase in remittances, better terms of trade and a higher rate of exports than in the nineties. These factors offset part of the increase in imports (as a share of GDP) (Graph B4.5).

**GRAPH B4.2**  
**CONSUMPTION PER CAPITA**



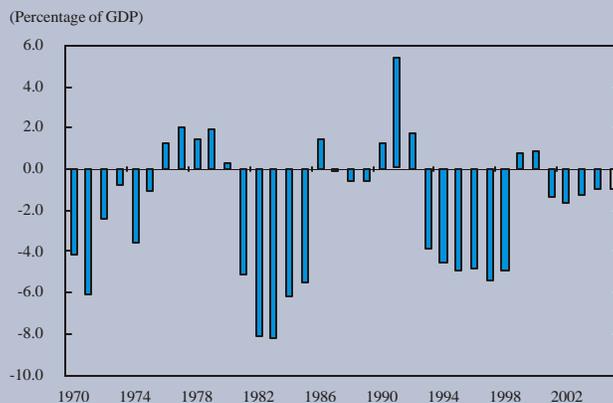
Source: DANE and DNP. Calculations by Banco de la República.

**GRAPH B4.3**  
**GROSS FIXED CAPITAL FORMATION (GFCF)**



Source: DANE and DNP. Calculations by Banco de la República.

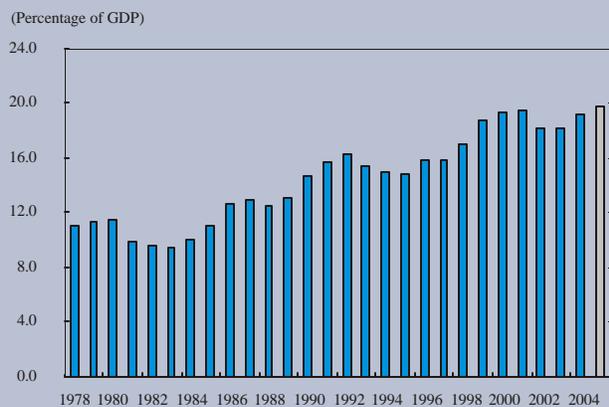
**GRAPH B4.4  
CURRENT ACCOUNT DEFICIT**



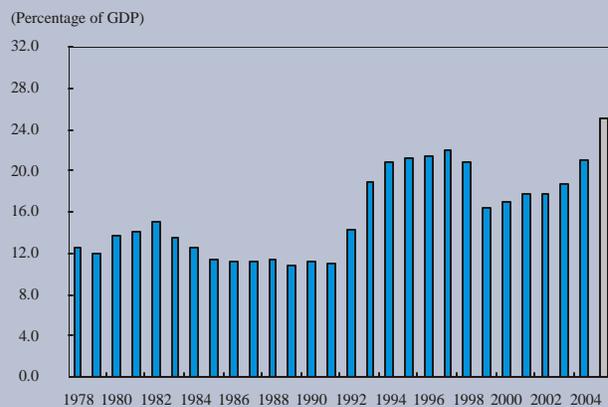
Source: DANE and Banco de la República.

**GRAPH B4.5  
EXPORTS AND IMPORTS  
(ACCUMULATED IN 12 MONTHS)**

**EXPORTS**



**IMPORTS**



Source: DANE and DNP. Calculations by Banco de la República.

## MACROECONOMIC PROJECTIONS BY LOCAL AND FOREIGN ANALYSTS

The following are the latest projections by local and foreign analysts on the country's macroeconomic variables for 2005 and 2006. These projections were developed with information available at September 2005.

### I. Projections for 2005

Table A1 contains the forecasts for 2005. On average, local analysts forecast 4.2% growth, which is an increase of 30 bp (with respect to the prediction last quarter). The foreign analysts raised theirs by 67 bp to 4.3%. None of the nine analysts lowered their forecasts. This suggests they all were more optimistic after seeing the figure for second-quarter growth (5.3% annual), which was a surprise to the market.

In terms of inflation, the local analysts took 10 bp off their forecast, placing it at 5.0% (the average reduction during the past year is 10 bp per quarter). The foreign analysts raised theirs by 18 bp to 5.1% (the same as two quarters ago). Since annual inflation at September was 5.0%, these forecasts assume that inflation will remain at that level for

**TABLE A1**  
**PROJECTIONS FOR 2005**

	Real GDP Growth (%)	CPI Inflation (%)	Nominal exchange rate (end of)	Nominal TDR (%)	Deficit (% of GDP)		Unemployment Rate (13 cities) (%)
					Fiscal (CPS)	Current Account	
<b>Local analysts</b>							
Revista <i>Dinero</i>	4.0	5.3	2,300	7.2	1.6	n.a.	12.6
Suvalor-Corfinura	4.2	4.8	2,316	5.9	1.6	n.a.	12.5
Corfivalle	4.0	4.9	2,306	6.5	1.9	n.a.	13.0
ANIF	4.2	5.0	2,340	7.1	1.6	n.a.	12.5
Fedesarrollo	4.4	5.0	2,294	7.0	1.7	n.a.	11.1
<b>Average</b>	<b>4.2</b>	<b>5.0</b>	<b>2,311</b>	<b>6.7</b>	<b>1.7</b>	<b>n.a.</b>	<b>12.3</b>
<b>Foreign Analysts</b>							
CS First Boston	4.4	5.3	2,315	6.5	1.6	0.5	12.0
IDEA Global	4.3	5.0	2,310	7.0	1.9	0.8	11.8
J. P. Morgan Chase	4.2	5.0	2,350	7.2	2.0	0.0	14.0
Deutsche Bank	4.2	5.2	2,300	6.5	1.2	1.4	n.a.
<b>Average</b>	<b>4.3</b>	<b>5.1</b>	<b>2,319</b>	<b>6.8</b>	<b>1.7</b>	<b>0.7</b>	<b>12.6</b>

n.a. Not available  
Source: Dinero and Consensus Forecast, January 2005.

the rest of the year. As was the case a year ago, all the analysts believe the target will be met. Their forecasts are slightly above the middle of the range set by the BDBR for the end of 2005 (between 4.5% and 5.5%).

As to the exchange rate, all the analysts lowered their forecasts by Col\$80, on average (having done so during the course of the year by an average of Col\$70 per quarter). They now anticipate foreign exchange to appreciate by 3.2% in 2005 with respect to the final price at the end of 2004 (maximum anticipated appreciation is 4.17% and the minimum is 1.69%). One quarter ago, only one analyst thought appreciation was possible. This suggests the duration and magnitude of appreciation continue to surprise analysts and they are incorporating that surprise gradually into their forecasts.

With respect to the TDR, all the analysts lowered their forecasts. The forecasts by local analysts averaged 6.7% and those by foreign analysts, 6.8% (during the year, both local and foreign analysts lowered their forecasts by 43 bp per quarter, on average). This implies, on average, that analysts expect the term deposit rate at the end of the year to be 100 bp less than at the close of 2004. They anticipate a fiscal deficit on the order of 1.7%; that is, 80 bp below the forecast nine months ago. As to the current account deficit, there are no new figures from the local analysts (0.9% one quarter ago). The foreign analysts are predicting 0.7% (as opposed to 1.4% last quarter). Finally, the local analysts lowered their forecast on unemployment in 13 cities by 100 bp to 12.3%; the foreign analysts left theirs at 12.6%.

## **II. Projections for 2006**

Table A2 contains the forecasts for 2006. With respect to growth, the local analysts forecast 4.1% and the foreign analysts, 3.8% (3.9% and 3.7%, respectively, since the beginning of 2005). The local analysts expect 4.6% inflation and the foreign analysts, 4.7% (4.7% and 5.1% one quarter ago). As to the exchange rate, they anticipate 4.1% average annual devaluation with respect to the forecasts for the end of 2005 (5.1% one quarter ago and 6.9% two quarters ago). Consequently, the analysts expect the representative market rate to be Col\$2,410 by the end of 2006 (Col\$2,513 one quarter ago and Col\$2,643 two quarters ago). This is similar to the rate in June 2002.

These forecasts imply 0.8% devaluation of the peso in 2006 with respect to the levels observed at the end of 2004 (5.2% one quarter ago and 11% two quarters ago). Unlike the forecasts in the first two quarters of the year, there is no longer any difference in the distribution of this devaluation. All the analysts anticipate appreciation in 2005 and depreciation in 2006 (at the start of the year, they all expected depreciation in 2005 and 2006). Again, despite exchange intervention, this suggests that appreciation has been far more lasting and stronger than what these analysts expected at the beginning of the year.

**TABLE A2**  
**PROJECTIONS FOR 2006**

	<b>Real GDP Growth (Percentage)</b>	<b>CPI Inflation (Percentage)</b>	<b>Nominal Exchange Rate (end of)</b>
<b>Domestic Analysts</b>			
Revista <i>Dinero</i>	4.2	5.0	2,461
Suvalor Corfinsura	4.3	4.3	2,353
Corfivalle	4.0	5.0	2,389
ANIF	4.0	4.7	2,430
Fedesarrollo	4.0	4.0	2,372
<b>Average</b>	<b>4.1</b>	<b>4.6</b>	<b>2,401</b>
<b>Foreign Analysts</b>			
CS First Boston	3.5	5.0	2,375
IDEA Global	4.0	4.8	2,400
J. P. Morgan Chase	4.0	4.5	2,450
Deutsche Bank	3.7	4.5	2,450
<b>Average</b>	<b>3.8</b>	<b>4.7</b>	<b>2,419</b>

Source: *Dinero* and Consensus Forecast.



MONETARY  
POLICY  
DECISIONS  
IN THE LAST  
THREE  
MONTHS



# MONETARY POLICY DECISIONS IN THE LAST THREE MONTHS

## **Background Information: *Inflation Report* - June 2005**

At June, the situation with respect to inflation confirmed the principal trends seen throughout the year: a reduction in core inflation and expectations of inflation, and the likelihood that the inflation target for 2005 will be met (between 4.5% and 5.5%). On the other hand, the economy entered its third consecutive year of growth at around 4%, fueled largely by investments and exports.

The Board of Directors evaluated the pattern exhibited by the primary determinants of inflation (i.e. inflationary expectations, costs and wages, the exchange rate and the output gap) and their possible development over the next six to eight quarters, which is the period covered by the current monetary policy. The results of the central forecast model were added to this analysis. They indicate the 2005 target for inflation likely will be met (perhaps even in the lower part of the range) and inflation in 2006 will decline towards the announced range (3% to 5%). Given low depreciation in 2006, this was consistent with maintaining a short-term interest rate (IIR) at around 6.3%. In the mid-term and the long-term, the model showed monetary policy will have to abandon its expansionary stance and return to a neutral position.

Based on this analysis, the Board of Directors decided to leave the interest rate on expansion repos at 6.5% and agreed not to reopen the expansion windows or the contraction auctions for short-term liquidity. Given the assessment of the exchange situation, plus the balance of payments projections and the information on foreign direct investment flows (FDI), the Board of Directors decided the Bank would continue to intervene in the exchange market at its discretion. This is intended to adjust the market gradually and to avoid any excessive appreciation of the exchange rate. In pursuit of this policy, Banco de la República purchased US\$841.3 million (m) in the second quarter of the year, bringing the total amount of discretionary purchases between January and June to US\$1,615 m.

## **Monetary Policy Decisions in the Third Quarter of 2005**

The monthly inflation report presented to the Board of Directors in September showed no major changes in the short-term projections for inflation or in the estimated output gap with respect to the macroeconomic forecast in the *Inflation Report* for the second quarter. However, there were significant differences in the exchange rate.

- There was evidence of a more accentuated trend towards appreciation than expected. The representative market rate went from an average of Col\$2,340.6 in April-June 2005 to an average of Col\$2,311.7 in July-September, and the Bank expanded its intervention in the exchange market (average daily purchases increased from US\$15 m in April-June to US\$33 m in July-August).
- The projected balance of payments for 2005 and 2006 shows less of a tendency towards depreciation in the exchange rate, primarily because of the increase in export commodity prices and FDI flows.

According to the projections based on the transmission mechanism model (TMM), if there were no major variation in the exchange rate prior to the first half of 2006, short-term interest rates could be somewhat lower in the fourth quarter of 2005, even if the reduction were only temporary.

This scenario faced two risks that operated in different directions. On the one hand, the output gap, which is an unobserved variable, might have been narrower than the assumption in the basic scenario (-1.3% at September). In this case, rates could not be lowered and, in fact, would have to be raised in the near future. The other risk was that appreciation might be more pronounced and probably longer lasting than expected, due to continued high terms of trade, abundant flows of capital and low risk premiums in relation to historic levels. In this case, the transmission mechanism model (TMM) showed that a larger reduction in interest rates in the fourth quarter of 2005 was possible. The rates would remain low in 2006 and begin to increase in 2007.

In this context, there were two policy alternatives. One was to keep interest rates at the same level, if appreciation was thought to be a temporary phenomenon and the output gap was not regarded as being overly negative. The other was to allow some reduction in rates if the tendency towards depreciation of the peso was considered to be more prolonged. In this last case, the Bank would face the risk of a narrower output gap than the one estimated at the time. Therefore, if rates were reduced, the continuity of that policy would be subject to a revision of the macroeconomic forecast in the *Inflation Report* and to the addition of new information, especially on economic activity.

At a meeting on 16 September 2005, the Board of Directors decided to lower the intervention rate by 50 bp (half a percentage point) on the basis of these factors. (Table A). This placed the minimum expansion auction rate at 6.0%. The Board of Directors also reiterated its commitment to continued intervention in the exchange market and reached an agreement with the national government to sell no less than US\$3 billion in international reserves. The details and dates of these operations were to be announced later.

For the September edition of the *Inflation Report*, there were two important changes that affected the inflation forecast. On the one hand, inflation at September was higher than expected. Secondly, there was evidence of a narrower output gap than the one estimated in earlier reports.

**TABLE A**  
**THE LATEST CHANGES IN BANCO DE LA REPUBLICA'S INTERVENTION RATES**  
**(PERCENTAGE)**

Date		Contraction		Expansion	
		Lombard	Auction	Auction	Lombard
2001	Dec. 17	6.25	7.50	8.50	12.25
2002	Jan. 21	6.00	7.00	8.00	11.75
	Mar. 18	5.25	6.25	7.25	11.00
	Apr. 15	4.25	5.25	6.25	10.00
	May. 20	3.75	4.75	5.75	9.50
	Jun. 17	3.25	4.25	5.25	9.00
2003	Jan. 20	4.25	5.25	6.25	10.00
	Apr. 29	5.25	6.25	7.25	11.00
2004	Feb. 23	5.00	6.00	7.00	10.75
	Mar. 23	4.75	5.75	6.75	10.50
	Dec. 20	4.50	5.50	6.50	10.25
	Dec. 22	n.a.	n.a.	6.50	10.25
2005	Sep. 19	n.a.	n.a.	6.00	9.75

n. a. Not applicable. Monetary contraction operations (auction and Lombard) have been suspended since 22 December 2004.

(\*) The working day immediately after the decision by the Board of Directors.

Source: Banco de la República.

The upsurge in inflation at September was related to price increases for certain major items in the basket of goods and services. These include staple foods, public utilities and rentals. However, the increase was considered in line with the target for 2005 (between 4.5% and 5.5%), and monetary authorities felt it is premature to speak of an upward trend in core inflation and particularly in non-tradable inflation. However, the new inflation figures raised the forecasts for short-term inflation (three and six months), especially food inflation.

The new information concerning the output gap originated on three fronts:

- GDP growth in the second quarter of the year was more than expected. The economy expanded by 5.3% (the highest rate since 1989), while the rise in domestic demand was 9.4% (the highest since 1994).
- DANE raised the economic growth figure for 2003 from 4.12% to 4.27%, mainly because of a larger than expected increase in mining and quarrying.
- A *principal components* exercise was done on a set of indicators of economic activity, capacity utilization figures and information from different surveys. The results of this exercise showed the output gap clearly has narrowed, particularly since 2003.

Moreover, the macroeconomic analysis indicated it was feasible to expect the good pace of GDP growth to continue during the next four to six quarters:

- On the one hand, the external outlook suggested better terms of trade and larger inflows of capital during 2006 (especially FDI) in contrast with the predictions in earlier reports. Contributing to this is the fact that the government's external financing needs for 2006 are virtually covered. As a whole, these circumstances were mirrored in less of a trend towards appreciation of the exchange rate in 2006 and possibly a larger current account deficit.
- On the other hand, the momentum in domestic demand is expected to continue during 2006, thanks to a gradual improvement in employment, the continued rise in investment, and the anticipated growth in public spending. Although based on partial information, different indicators pointed to improvements in the productivity of labor and in total factor productivity.

Based on these elements and recognizing the profound uncertainty surrounding the actual size of the output gap and the pace at which it might be closing, the technical team felt there was evidence of a narrower output gap than the one estimated in earlier reports. In this context, the main risk to inflation during the next six to eight quarters would come from possible demand-pull pressures, given better economic performance and the expectation that it will continue to improve. Even so, it was felt there were factors that could mitigate these pressures, such as the growth in productivity and the sizeable increase in the pace of investment, particularly in machinery and equipment.

The sensitivity scenarios for this variable were assessed in an explicit attempt to include the uncertainty surrounding the size of the gap. The sensitivity scenarios for the exchange rate were evaluated as well. This is another variable with a highly uncertain forecast.

The different scenarios showed the intervention interest rate could not be reduced further (given the reduction one month earlier). On the contrary, apart from the assumptions on the size of the output gap and how the exchange rate would behave in the future, monetary policy would have to abandon its expansionary stance for a neutral position in the medium and long-term in order to keep inflation from accelerating.

The analysis also showed inflation would be fueled by demand-pull pressures or by an upsurge in tradable inflation, if the output gap were positive or if a reversal of capital flows were to fuel accelerated depreciation in the exchange rate. In these cases, earlier and larger increases in interest rates would be needed than those required if the gap were still negative or if the peso were to continue to appreciate during the coming year.

In this context, the Board of Directors agreed at a meeting on 28 October 2005 to keep the interest rate on expansion repos at 6% (Table A). It also reiterated its decision to continue the Bank's discretionary intervention in the exchange market and agreed that the supply of liquidity required by the economy at the end of the year would be provided in keeping with this type of intervention.

Pursuant to its policy on exchange market intervention, Banco de la República made US\$1,935 m in discretionary purchases of foreign currency during the third quarter of the year, for a total of US\$3,550 m discretionary purchases between January and September (Table B). This exceeds all foreign exchange purchased by the Bank in 2004 (US\$2,905 m).

**TABLE B**  
**FOREIGN EXCHANGE PURCHASE-SALE OPTIONS**  
**BANCO DE LA REPÚBLICA**  
**(MILLIONS OF DOLLARS)**

	2004		2005								
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Jan. to Sep. (*)	
<b>Purchases</b>	2,905	268	335	170	408	151	282	225	1,000	710	3,550
<b>Put Options</b>	1,580	0	0	0	0	0	0	0	0	0	0
To accumulate international reserves	1,400	0	0	0	0	0	0	0	0	0	0
To control volatility	180	0	0	0	0	0	0	0	0	0	0
Discretionary Intervention	1,325	268	335	170	408	151	282	225	1,000	710	3,550
<b>Sales</b>	500	0	250	1,000	0	0	0	0	0	700	1,950
National Government	500	0	250	1,000	0	0	0	0	0	700	1,950
<b>Net Purchases</b>	2,405	268	85	(830)	408	151	282	225	1,000	10	1,600

(\*) Accumulated between January and September 2005.  
Source: Banco de la República.