Inflation
report

September 2006

Banco de la República
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Inflation at September and the Outlook

- Consumer inflation went from 3.9% in June to 4.6% by September, and the average for core inflation indicators during the same period rose from 3.7% to 4.2%. These increases do not jeopardize the possibility of compliance with the target for 2006, which is between 4% and 5%.

- The rise in inflation was due primarily to the supply factors that influenced the price of food and regulated goods and services. Tradable inflation also was up slightly, due to second-quarter depreciation.

- Second-quarter growth in the Colombian economy far surpassed expectations. Indicators of productive activity suggest the increase continued during the third quarter with good growth in private demand, investment and consumption. These tendencies were motivated by the sharp increase and acceleration in credit.

- The growth in exports and national income continue to benefit from external demand and terms of trade, while survey results show household and business confidence remains high. This being the case, domestic and external factors are still favorable for growth in aggregate demand. The situation is expected to continue as such during the coming year, but with less growth in world demand and probably a decline in terms of trade, which is expected to be gradual.

- Real interest rates in the financial system remain low for deposit and borrowing, while the loan portfolio continues to grow at a high rate. The performance of these variables is partly due to the fact that financial institutions have shifted their portfolios shift towards loans as opposed to TES and other investments, which has given them an important source of resources for credit.

- Expectations for inflation in 2006 and 2007 are up in response to the third-quarter increases in inflation. There is the possibility of additional inflationary pressures in the coming months and at the start of 2007 due to El Niño, higher prices for regulated goods and services, and possible changes in the value added tax (VAT). Although these factors are likely to have only a temporary impact on inflation, they could lead to higher expectations of inflation. However, the country's monetary authority will try to prevent this and to explain the temporary nature of these price changes to agents in the market.

- Increased productivity continues to curb unit labor costs, although some of that increase might be cyclical rather than permanent. Raw material prices have elevated the cost of doing business, although the recent trend in the exchange rate might slow at push. Nevertheless, if the force of aggregate demand continues, pressure on costs could begin to be more evident. In fact, surveys show the business community expects the cost of raw materials increase.

- In short, real interest rates remain low, economic growth continues, and the credit channel has intensified. Surplus productive capacity would be expected to decline under these conditions. However, not to be ignored is the impact the sharp rise in private investment in machinery and equipment could have on potential output and productivity, which could reduce that risk. In any case, although the exchange rate is not a source of inflationary pressure at the moment, neither does it allow for a sustained reduction in future inflation, as no major appreciation in the central macroeconomic scenario is anticipated for 2007 and thereafter. On the other hand, the hikes in the intervention interest rate have had only a limited impact so far, due to the shift in bank assets from domestic government bonds to loans. If this process does not continue, the effect of these hikes would be expected to begin to exert more of an impact on the pattern of aggregate demand.

- Given these factors as a whole, the Banco de la República Board of Directors (BRBD) raised intervention rates by 25 basis points at its meeting on October 27, setting the base rate for expansion auctions at 7.25%. This measure is coherent with the increases ruled in August and September, and is part of the monetary policy standardization strategy announced by BRBD to ensure stable economic growth and the gradual convergence of inflation towards 2% to 4% in the long term.

Board of Directors
Banco de la República

INFLATION REPORT

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I. The Current Economic Situation

The Colombian economy accelerated during the second quarter, growing more than expected. Private investment and consumption are still the driving force behind that growth. The increase in bank loans, coupled with low interest rates, played an important role in this outcome.

At the external level, Colombia's exports continue to be favored by growth worldwide. The United States economy seems to be headed for a soft landing, as its rate of inflation has slowed. This context spells less pressure on monetary policy in that country.

Fewer expectations about external interest rates helped to stabilize the financial markets as of July. The third quarter saw a reversal, in part, of the devaluation in local assets experienced during the second quarter. This was accompanied by a build-up in the peso, as predicted in the June edition of this report.

The third quarter witnessed an increase in inflation that was not fully anticipated. It was concentrated in food and regulated goods and services, but included other tradables as well. Supply shocks, external prices and, to a lesser extent, depreciation were the factors that contributed the most to this increase. The slight reduction in non-tradable inflation suggests there is little pressure from demand.

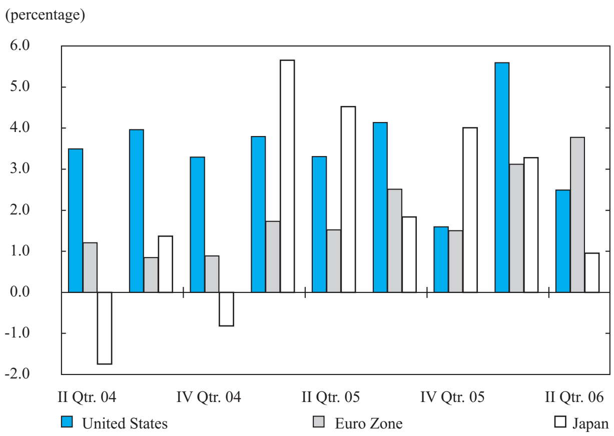
A. External Context

The world economy continued to grow during the third quarter, although not as fast as in previous quarters, above all in the United States. The Euro zone, Japan and other emerging economies maintained their momentum. At the same time, inflation in the major economies ceased to mount and even eased up a bit, thanks to the drop in energy prices. As a result, the interest rate hikes were more gradual that anticipated in the June *Inflation Report*.

During recent months, the market has focused on the slowdown in the United States economy. Second-quarter growth was 2.6%[1] (annualized

Graph 1

Annualized Quarterly GDP Growth: United States, the Euro Zone and Japan



Source: Datastream.

quarterly), due to the drop in home investments, less public consumption and negative net external demand (Graph 1). The latest indicators suggest less momentum, spearheaded by the slowdown in the housing market. The reduction in new and used home sales, among other indicators, has already begun to be reflected in housing prices. Some of the figures on industry and household consumption show a downward tendency as well, although far more moderate than in the housing market. This supports the idea of a soft landing for the United States economy.

The other developed economies, such as the Euro zone and Japan, maintained their growth. During the second quarter, the Euro zone saw its economy increase by 3.8% (annualized quarterly) and Japan, by 1.0%. Although this last figure is well below the growth rate for the Japanese economy in the second quarter of 2006, it could be temporary.[2] The latest indicators for both economies continue to show an important degree of recovery in consumption and private investment.

The emerging economies saw vigorous growth during the third quarter. The increase in the Chinese economy was 10.4%, which is slightly less than the figure reported three months ago. The measures adopted continuously by monetary authorities to avoid the sort of over investment observed in certain sectors apparently are having an effect, although still modest at best. On the other hand, Colombia's principal trading partners maintained their economic growth. For example, the Venezuelan economy increased by 9.2% in the second quarter and the Ecuadorian economy, by 4.8%. These are similar to the growth rates observed in the previous quarter.

Fears about less economic growth in the United States, coupled with favorable circumstances such as the increase in gasoline inventories, the mild hurricane season and a better world geopolitical environment, allowed for a drop of US$16 in the price of oil compared to the peak price three months ago. The price of West Texas Intermediate (WTI) was near US$60 a barrel at the beginning of October, which is less that what was forecast in the last edition of this report (Graph 2).

Colombia's principal trading partners continued to experience good economic growth during the second and third quarters.

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1 Preliminary US economic growth figures for the third quarter were announced at the time this report was being written. They were 1.6% (annualized quarterly) less than what the market expected. As anticipated, the sharpest decline was in the residential sector with -17.4% growth, taking 1.2 percentage points off GDP growth.

2 The slowdown in growth was due to weather factors that had a negative impact on household consumption.

Total inflation indicators for the developed economies, especially the United States, reflect the decline in oil prices. In that country, annual total inflation at September was down to 2.1%,[3] which is less than core inflation (2.9%) (Graph 3). The latter continues to be propelled largely by rentals. Total inflation in the Euro zone and Japan declined substantially, while core inflation has remained low, but with a moderate upward tendency.

Central bank intervention interest rates in several of the developed countries continued to climb, but at far slower pace than was anticipated three months ago. The central banks in the Euro zone and Japan continued their gradual rate hikes. In the United States, however, the combination of less economic growth and signs of fewer inflationary pressures enabled the U.S. Federal Reserve Bank (the Fed) to interrupt its rate-increase strategy. The result was a moderate decline in long-term rates.

All these factors combined allowed for a correction in the volatility of world financial-market indicators. For example, after the sharp drop in late May, the world's principal stock markets saw substantial valuation. Financial markets in the emerging economies also became less volatile. The tendency in their exchange rates has been towards appreciation with respect to the levels registered in June (Graph 4), and their country-risk premiums continued to decline.

B. FINANCIAL VARIABLES

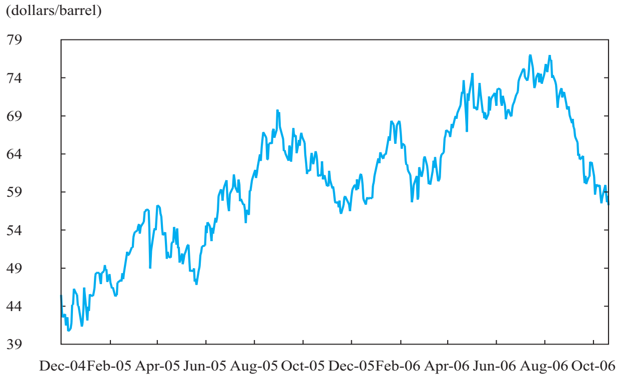
1. The Exchange Rate

The recent trend in the exchange rate in Colombia is consistent with the international context, and is simi-

[3] The statistical effect in September also is important to consider, given the sizeable increase in gasoline price inflation during September 2005 due to the effects of Hurricane Katrina.

GRAPH 2

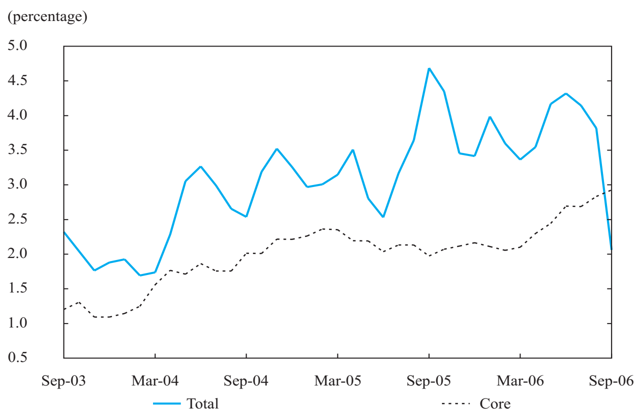
OIL PRICES (WTI) ON THE NEW YORK STOCK EXCHANGE



Source: Bloomberg.

GRAPH 3

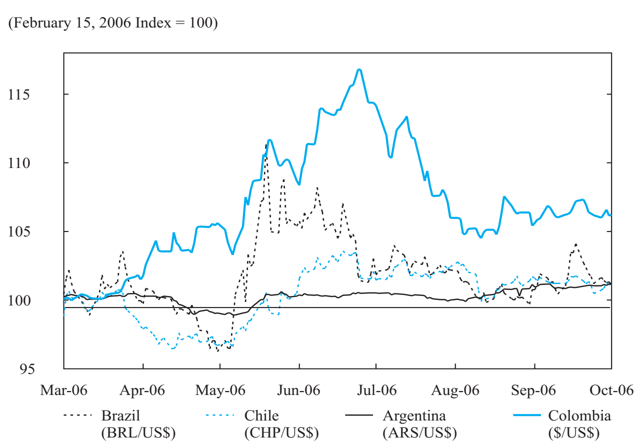
ANNUAL CONSUMER INFLATION IN THE UNITED STATES



Source: Datastream.

GRAPH 4

NOMINAL EXCHANGE RATE OF DIFFERENT LATIN AMERICAN CURRENCIES AGAINST THE DOLLAR



Source: Datastream.

Investor confidence in local assets was restored as of June.

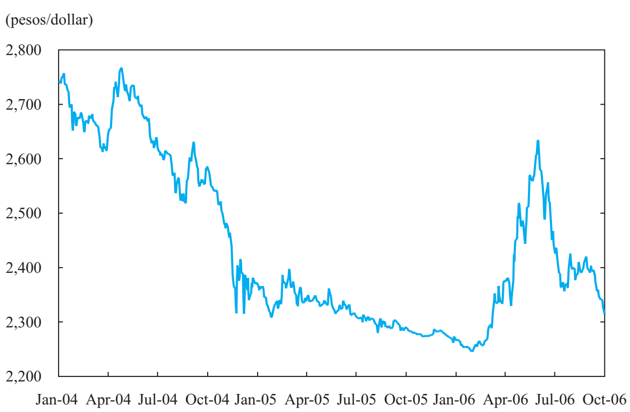
lar to the pattern exhibited by exchange rates throughout Latin America. As mentioned in the June edition of this report, the tendency towards a weaker Colombian peso during the second quarter of 2006 was characterized by the uncertainty sparked on financial markets by the unexpected rise in international interest rates. Outflows of Colombian investor capital were a manifestation of that uncertainty, as was the decline in portfolio investments by foreign investors. With all of this, the exchange rate hit a high for the year at the end of June (Col$2,633 per dollar).

As of July, the Fed's decision not to continue its strategy of interest rate hikes restored investor confidence in the emerging economies, including the Colombian economy. The result has been less pressure on the peso and other currencies in the region, and a reduction in country-risk premiums, which are near to what they were in the first quarter of 2006. In Colombia, news about the sale of state-owned companies and increased foreign investment in the local business sector consolidated the tendency towards appreciation.

This being the case, the country-risk premium for Colombia was 176 bp at the end of October, which is nearly 90 bp less than the high in June. At the same time, the nominal exchange rate for the Colombian peso reached Col$2,315 per dollar on October 31 of this year (Graph 5). Average annual nominal devaluation was 1.95% for the year to October and 3.55% in real annual terms compared to the trading partners (Graph 6).

GRAPH 5

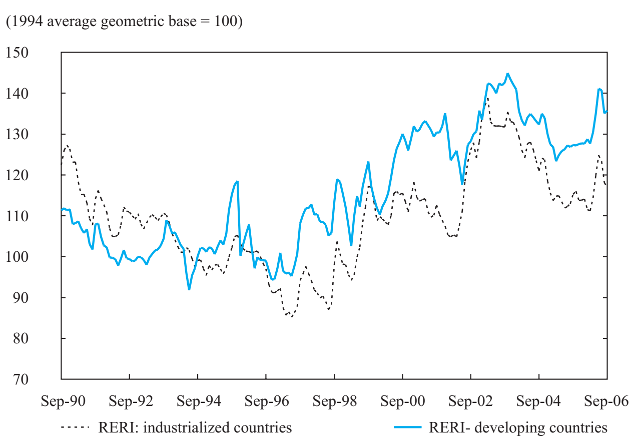
REPRESENTATIVE MARKET RATE OF EXCHANGE a/



a/ Up to October 30.
Source: Banco de la República.

GRAPH 6

REAL EXCHANGE RATE INDEX a/



a/ Calculated with the PPI.
Source: Banco de la República.

2. Monetary Aggregates

The growth in monetary aggregates tended to accelerate during the third quarter (Table 1). The rise in M3 is explained by increases in private M3 and, particularly, by added growth in savings accounts (20.5% annual, on average) and checking accounts (23.4%). This might be associated with the shift in the public TES holdings and with activity in the direction of financial system liabilities, begun in April. However, growth in monetary aggregates has slowed substantially since September, which could mean this process is reversing itself, at least in part, as suggested

Table 1

Average Annual Variation in Monetary Aggregates
(percentage)

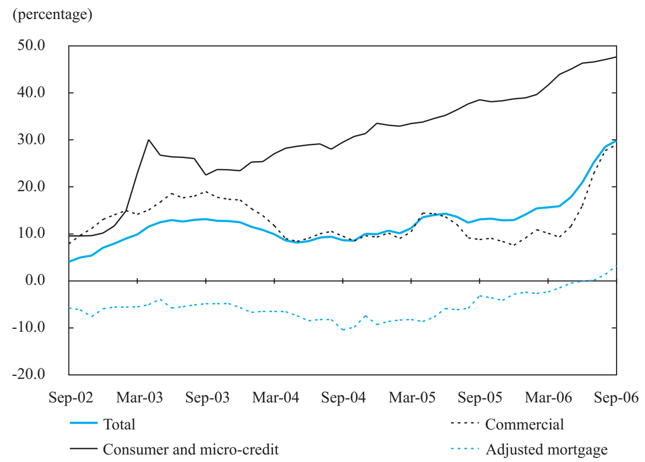
	Base	Cash	M3	LSR
I Qtr. 06	19.42	19.81	15.02	14.33
II Qtr. 06	22.80	24.80	15.55	14.26
III Qtr. 06	27.14	29.60	18.27	16.65

Source: Banco de la República.

by developments on the stock market and the recovery in TES prices.

Graph 7

Gross Portfolio (L/C)
Annual Growth Rates



Source: Office of the National Superintendent of Financial Institutions. Calculations by Banco de la República.

3. Credit and Interest Rates

Credit in the last two quarters accelerated in line with good consumption performance and the growth in financial savings (M3). This momentum applies to all types of loans (Graph 7). For example, the financial system's total loan portfolio in legal currency (L/C) was up by Col$7.5 trillion (t) in the second quarter of 2006 and by Col$6.9 t in the third.

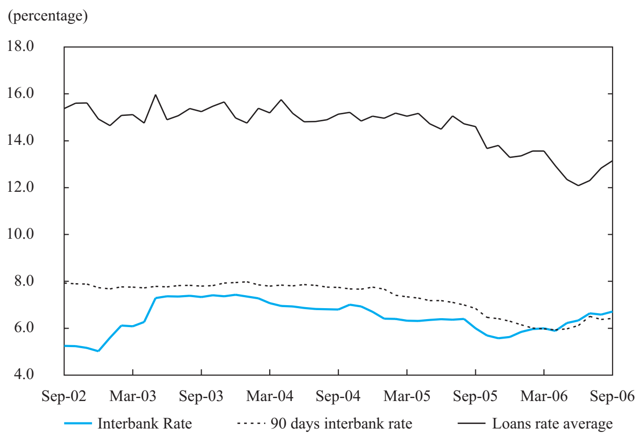
Besides the increased demand for loans, due to the increase in economic activity, the acceleration in the loan portfolio during the last two quarters also is the result of a shift in the make-up of lenders' loan portfolios. In fact, the financial system funded much of the increase in loans with reductions in their investments, particularly in TES. These cuts implied Col$1.5 t and $3 t in sales (cash) during the second and third quarters, respectively. Moreover, the second-quarter growth in the loan portfolio was funded with the increase in deposits, mainly savings. However, this source of funds played a less important role during the third quarter.

During the second quarter, TES sales on the part of banks and the growing demand for deposits, sparked by the decline in the value TES and stocks, created a situation where the increase in loans did not exert a great deal of upward pressure on deposit interest rates, nor did it affect the quality of the loan portfolio. In fact, as Graph 8 illustrates, the rate on ninety-day fixed term deposits (DTF in Spanish) went from a minimum of 5.9% in April to 6.4% in September. It

The financial system funded much of the increase in loans with reductions in its investments in TES.

GRAPH 8

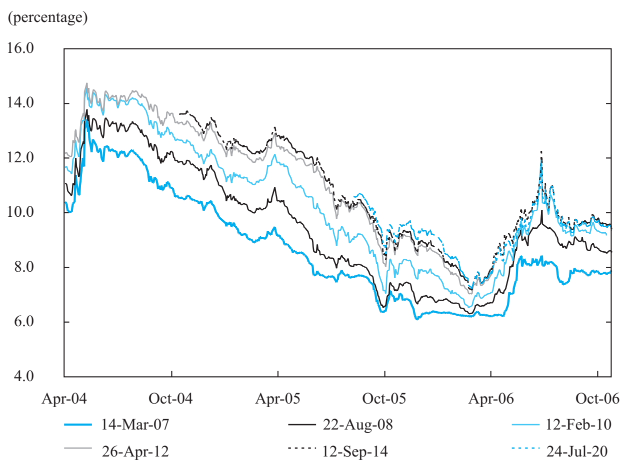
NOMINAL INTEREST RATES



Source: Office of the National Superintendent of Financial Institutions. Calculations by Banco de la República.

GRAPH 9

TES TRADING RATES a/, FIXED RATE ON THE SECONDARY MARKET (SEN)



a/ Data at October 27, 2006
Source: SEN-Banco de la República.

was less than the adjustment in Banco de la República's intervention rates.[4] As was expected, the change in the intervention rate was reflected entirely in the interbank rate.

Only a portion of the Bank's rate increase was passed on to the lending rates. While rates on business loans (treasury and commercial) rose only slightly, rates on consumer and credit-card loans were down again in the third quarter.

As to TES interest rates, those on long-term bonds tended to decline during the third quarter, taking back part of the increase observed in the previous quarter as a result of more perceived risk (Graph 9). Up until early October, the correction in long-term rates was not accompanied by an equivalent reduction in short-term rates. This reduced the difference between the short and long-term sections (yield curve slope), although not to the extent witnessed at the start of the year.

In the mid-term, we can expect more of the Bank's intervention rate to be passed on to interest rates for borrowing and lending, provided the commercial banks continue to maintain their momentum in loan placement, while lowering their rate of TES sales. Under these circumstances, financial institutions would be obliged to fund themselves largely through the demand for deposits, which probably would bring more pressure to bear on deposit rates and particularly those for term deposits (CDT in Spanish). Available evidence suggests there already has been more of an increase in longer term CDT rates than in those for the shorter terms.

4. Asset Prices

During the third quarter, the Colombian stock market recovered part of the momentum it lost after the drastic reductions during the second quarter of 2006

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[4] Banco de la República raised its repo expansion rate by 25 bp on two occasions during the third quarter (August and September). These add up to an increase of 50 bp during the second quarter and, by late September, the repo expansion rate was 7%.

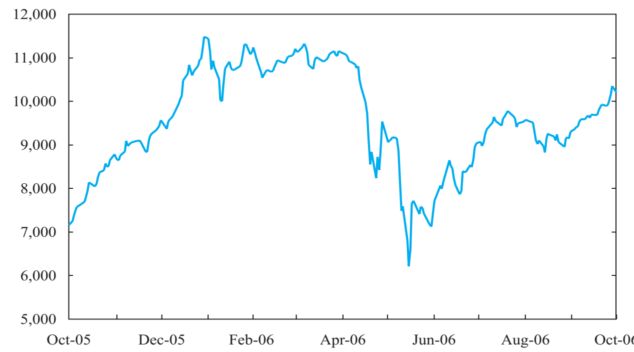
(Graph 10). The rebound in stock prices as of June has been significant (27.2%), although not all losses have been recouped in full. As with the TES market, the recovery in the stock market was associated with fewer expectations of external interest rate hikes and increased confidence in the future profitability of assets issued in pesos.

With respect to new home prices,[5] information released by the National Department of Planning (DNP) shows the continuation of a slight upward tendency so far this year, in real terms. The increase in real home prices since mid-2003 has been slow and has not yet achieved the levels registered in the mid-nineties (Graph 11).

GRAPH 10

COLOMBIAN STOCK MARKET INDEX a/

(July 3, 2001 = 100)

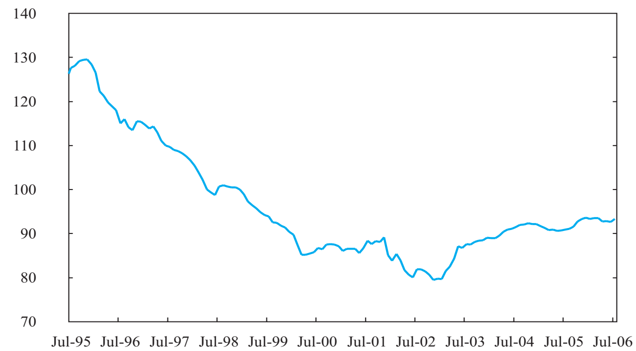


a/ Data at October 30, 2006.
Source: Colombian Stock Exchange.

GRAPH 11

REAL NEW HOME PRICE INDEX a/

(December 1998 = 100)



a/ Weighted average for Bogotá and Medellín.
Source: National Department of Planning (DNP).

C. ECONOMIC ACTIVITY AND EMPLOYMENT

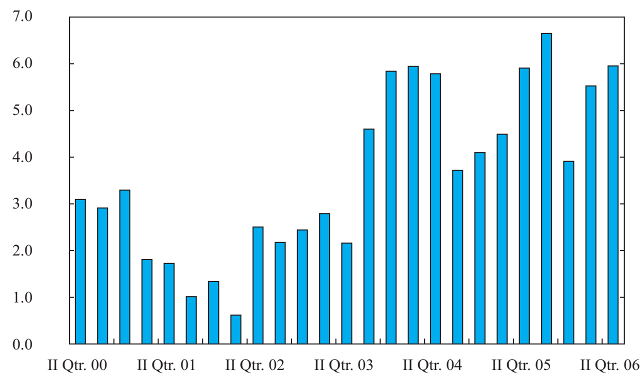
1. Growth During the First Half of 2006

According to the National Bureau of Statistics (DANE), gross domestic product (GDP) rose by 6.0% during the second quarter of 2006, surpassing predictions by analysts and by the Bank's models. When it published the second-quarter figure for GDP, DANE raised the economic growth figures for 2004 from 4.8% to 4.9% and for the first quarter of 2006, from 5.3% to 5.5%. No change was made in the figures for 2005 (5.2%) (Graph 12).

GRAPH 12

REAL ANNUAL GROWTH IN QUARTERLY GDP

(percentage)



Source: DANE. Calculations by Banco de la República.

The significant increase in the construction sector was the big surprise. Measured through DANE's home building census, its variation on the sector side is applied according to type of spending on investment in construction and buildings.

[5] Weighted average price of a new home in Bogotá and Medellín.

Home and building construction, which had remained stable at $730 billion (b) 1994 pesos between the fourth quarter of 2003 and the first of 2006, jumped by nearly $180 billion 1994 pesos during the second quarter of 2006. This is 26% above the previous levels (Graph 13).

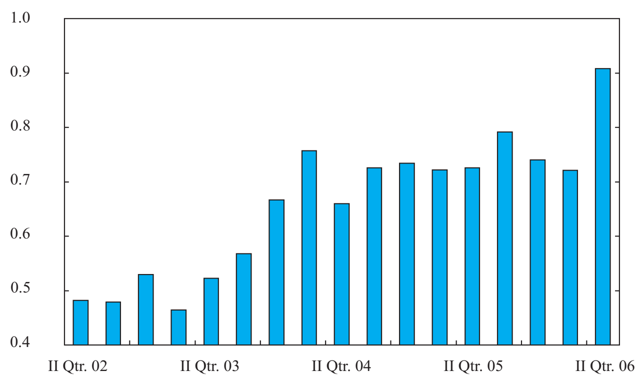
Accumulated GDP for the first six months of 2006 was up by 5.7% in real terms, confirming the economy is in an expansionary phase of the economic cycle. With the second-quarter growth figure for 2006, this completes thirteen quarters with average growth above 5.0%, which is particularly outstanding inasmuch as the average long-term growth rate for the Colombian economy (100 years) is 4.5%. It is 4.2% for the last 50 years and only 3.5% for the last 20 years.

Much of the economic growth witnessed during the first half of 2006 is explained by the momentum in domestic demand (Table 2), particularly the rise in total investment. During that period, total investment increased by nearly 30%. Growth in the industrial sector and in imports of capital goods has allowed investment in machinery and equipment to continue to expand rapidly. At present, this investment item comes to almost Col$2.3 t (in 1994

GRAPH 13

GDP IN HOME
AND BUILDING CONSTRUCTION

(Trillions of 1994 pesos)



Source: Dane. Calculations by Banco de la República.

TABLE 2

REAL ANNUAL GDP GROWTH BY TYPE OF EXPENDITURE
(PERCENTAGE)

	Annual Growth Rates				First Six Months of 2006	
	2004	2005	I Qtr. 06	II Qtr. 06	Growth	Contribution
End Consumption	**4.8**	**4.8**	**4.7**	**4.4**	**4.5**	**3.8**
Household	6.0	4.7	5.3	5.3	5.3	3.3
Government	1.1	4.8	2.9	1.5	2.2	0.4
Gross Capital Formation	**15.6**	**25.6**	**27.4**	**31.7**	**29.7**	**5.9**
Gross Fixed Capital Formation (GFCF)	15.0	18.8	16.0	22.9	19.5	3.6
GFCF without Civil Works	22.0	16.7	15.5	20.7	18.2	2.7
Civil Works	(7.9)	28.2	17.7	33.6	25.2	0.9
Variation in stock	28.0	156.0	372.8	121.3	182.8	2.2
Domestic Demand	**6.6**	**8.5**	**8.9**	**9.9**	**9.4**	**9.6**
Total Exports	**10.0**	**5.5**	**7.1**	**0.8**	**3.9**	**0.8**
Total Imports	**19.8**	**21.7**	**23.1**	**18.8**	**20.9**	**4.7**
GDP	**4.9**	**5.2**	**5.5**	**6.0**	**5.7**	**5.7**

Source: Dane. Calculations by Banco de la República.

pesos), which is 30% more than maximum achieved at the peak of the last expansionary phase (in 1998).

Investment in construction was particularly strong during the second quarter, with a real increase of 25.6%. This offset its poor performance in the first quarter (-0.1% real annual growth).

Investment in construction was particularly strong during the second quarter, showing a real increase of 25.6%. This offset the sector's poor performance during the first quarter (-0.1% real annual growth).

The outcome for the second quarter was due primarily to the number of registered works in progress (including low-income housing) and the number of projects reinitiated between April and June 2006. Construction in recent quarters was spurred by consumer and investor confidence as well as low interest rates.

The first half of 2006 saw an increase of 25.2% in gross fixed capital formation (GFCF) in civil works, thanks to more government investment in roads and mass transit facilities. For its part, the private sector contributed with investment in the telecommunications sector, which should see a major increase in capacity.

Growth in household consumption was stable at 5.3% for the first half of 2006, which is more than in 2005 (4.7%). Durable goods led consumption with an increase of 17.2% in the first six months. The growth in semi-durables was near 6.0%. The increase in consumption of non-durables and services hit a high point. Together they were up by 4.3% in real terms, surpassing the growth rate in 2005 (3.3%).

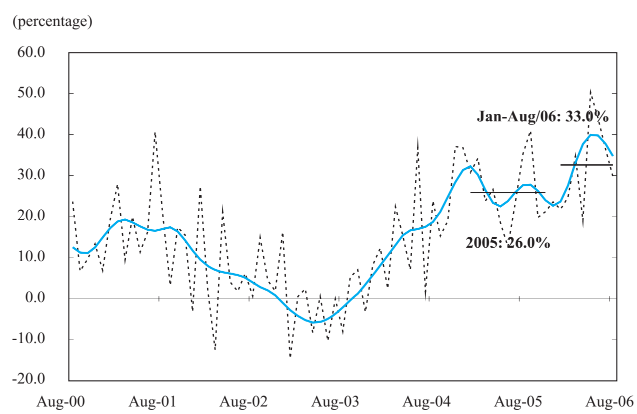
Imports of consumer goods were invigorated by the rise in household consumption between 2005 and 2006, and experienced a substantial acceleration during the period between January and August 2006 (Graph 14). So far this year, imports of durable goods have increased the most (41.2%), while imports of non-durables are up by 23.4%.

Government spending rose slightly during the first half of 2006, primarily because of the impact the Electoral Assurances Act had on government contracting. Demand in the public sector, including civil works, was responsible for only 1.3 pp of the 9.6% increase in domestic demand.

Total exports grew by about 4.0% during the first six months of 2006. This can be regarded as important, considering the three negative supply shocks to foreign sales during that same period; namely, the poor coffee crop in 2005-2006, the Drummond coal strike, which caused an almost 20% reduction in exportable tons of coal between April and May, and the approximate 45% drop in gold mining.

GRAPH 14

ANNUAL GROWTH IN IMPORTS OF CONSUMER GOODS IN DOLLARS



Source: Dane. Calculations by Banco de la República.

The non-tradable sectors were the ones exhibiting the most growth during the first half of the year.

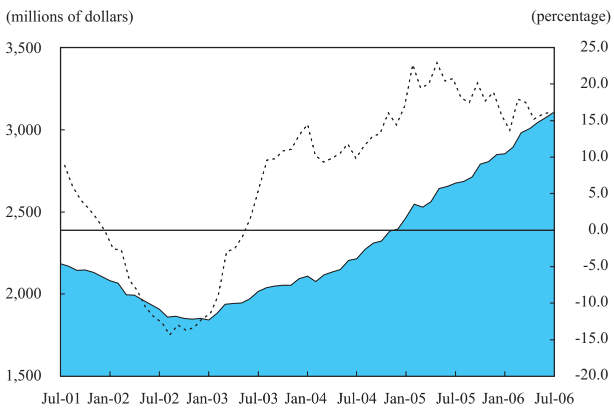
The Bank's technical team estimates that non-traditional exports would have increased by 6% to 10%, in real terms, during the first six month of the year. This is consistent with the figures released by DANE on non-traditional exports in dollars at June 2006, which showed good growth in sales to Venezuela and the United States. Sales to Ecuador stabilized at a monthly level of US$100 million.

On the supply side, non-tradables were the sectors with the most growth during the first half of 2006. They would have expanded by 6.3%, on average, in real terms. The most dynamic non-tradable sectors were construction, commerce and transport (Table 3).

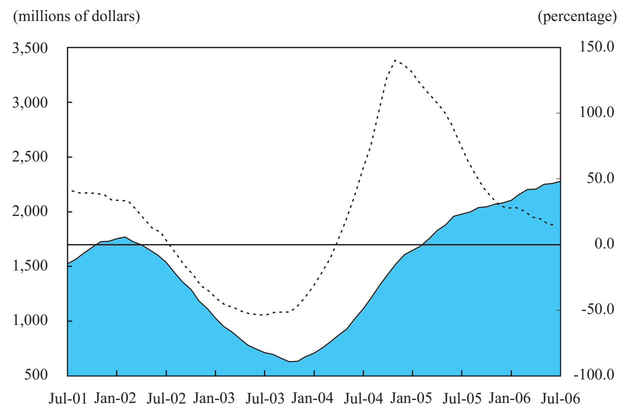
GRAPH 15

NON-TRADITIONAL EXPORTS
(ACCUMULATED IN TWELVE MONTHS)

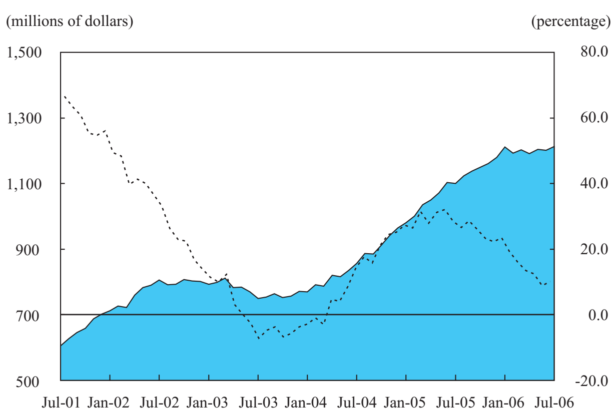
(A) TO THE UNITED STATES



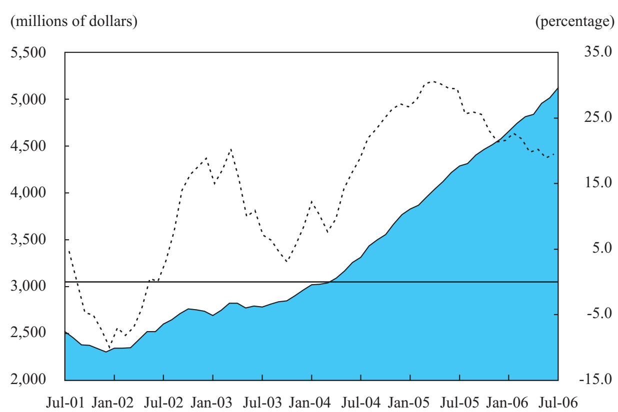
(B) TO VENEZUELA



(C) TO ECUADOR



(D) TO OTHER COUNTRIES



Exports ---- Growth (right scale)

Source: Dane. Calculations by Banco de la República.

Real growth in the tradable sectors during the same period was 4.8%, on average. The increase in agriculture and livestock was affected by a poor coffee crop in 2005-2006, as indicated earlier. Mining suffered the impact of the Drummond strike and the drop in gold production. During the first half of the year, industrial manufacturing was up by 6.8%, on average, boosted by external and domestic demand. In July and August, DANE reported 13% growth in industry. This figure is based on the monthly sample of manufactured goods (MMS).

Growth in agriculture and livestock was affected by a poor coffee crop.

2. Employment

The unemployment rate for thirteen cities continued to decline during the third quarter of 2006, showing a 1 pp reduction. This was prompted by a 2.4 pp drop

Table 3

Real annual GDP Growth by Sector
(percentage)

	Annual Growth Rates				First Six Months of 2006	
	2004	**2005**	**I Qtr. 06**	**II Qtr. 06**	**Growth**	**Contribution**
Agriculture, forestry, hunting and fishing	2.0	3.1	1.5	0.5	1.0	0.1
Mining and quarrying	2.7	2.4	0.5	(4.4)	(2.0)	(0.1)
Electricity, gas and water	2.8	3.2	2.9	0.8	1.8	0.1
Manufacturing industry	7.2	3.9	7.5	6.0	6.7	1.0
Construction	12.4	12.1	6.8	28.2	17.3	0.9
Buildings	29.4	3.6	(0.1)	25.2	12.6	0.4
Civil works	(10.0)	28.2	17.7	33.6	25.2	0.5
Commerce, repairs, restaurants and hotels	7.6	9.4	8.9	9.0	8.9	1.0
Transport, storage and communication	6.2	5.0	10.6	9.9	10.3	0.8
Financial institutions, insurance, real estate agencies and business services	4.8	3.6	6.5	(7.0)	(0.5)	(0.1)
Social, community and personal services	1.4	4.0	2.8	2.1	2.4	0.5
Financial brokerage services measured indirectly	10.3	8.4	12.5	(39.1)	(16.7)	0.7
Subtotal: Aggregate value	4.5	4.7	5.2	5.5	5.4	5.0
GDP	**4.9**	**5.2**	**5.5**	**6.0**	**5.7**	**5.7**
Taxes minus subsidies	10.6	12.8	9.9	11.2	10.6	0.8
Net FBMI(*) financial services [a/]	3.1	2.0	4.7	5.2	4.9	0.6
Tradables [b/]	5.0	4.0	4.7	5.0	4.8	1.9
Non-tradables	4.8	6.0	6.0	6.6	6.3	3.9

a/ FBMI: financial brokerage services measured indirectly
b/ Agriculture and livestock, mining, manufacturing, air and water transport services, both complementary and auxiliary, and certain private services for companies are classified as tradable sectors.
Source: Dane. Calculations by Banco de la República.

There would have been a significant reduction in the labor supply during the third quarter.

in the global participation rate (GPR) with respect to 2005, and offset the lower employment rate, which went from 54.3% in 2005 to 52.8% in 2006. Unemployment was up nationwide. This increase was evident in the municipal seats (other than those included in the group of 13 major cities) and in dispersed rural areas, or the rest of the country. There also was a generalized decline the GPR and the employment rate (the figures are the lowest since 2001) (Table 4).

By in large, the third-quarter figures show a significant reduction in the labor supply, which comes at a time when methodological changes were introduced in the home survey.[6] Consequently, at this point, it is impossible to know if the fluctuations are due to changes in the job market, or if they can be explained by the change in the process used to collect information (sample size and direct informant). If the decline in the GPR continues, the job market would have adjusted more than was anticipated in the June edition of this report.

As indicated in previous editions, a reduction in the labor supply, as suggested by the GPR decline, is to be expected with an improvement in household income, which allows secondary members in the home to withdraw from the job market and dedicate themselves to other activities, such as school

[6] The most important change is the direct informant's response. For details, see the article by Héctor Maldonado, former Deputy Director of DANE, in the October 1, 2006 edition of Portafolio and the press bulletin with the results of the continuous home survey (CHS) in September.

TABLE 4

THIRD-QUARTER JOB MARKET PERFORMANCE IN 2006

	2001	2002	2003	2004	2005	2006
Global Participation Rate						
Nationwide	63.8	64.2	65.0	63.0	62.9	60.5
Municipal Seats	62.4	62.3	63.1	61.7	61.2	59.3
Thirteen Cities	63.8	64.2	65.0	63.0	62.9	60.5
Others	59.2	56.5	59.5	56.7	56.9	53.4
Employment Rate						
Nationwide	52.5	51.4	53.2	52.6	53.2	50.4
Municipal Seats	51.7	51.8	52.9	52.9	53.2	51.2
Thirteen Cities	52.4	52.7	54.0	53.5	54.3	52.8
Others	54.4	50.6	54.2	51.7	53.1	48.0
Tasa de desempleo						
Nationwide	14.7	15.3	14.3	12.8	11.5	12.7
Municipal Seats	17.0	16.9	16.2	14.2	13.1	13.6
Thirteen Cities	17.9	17.9	17.0	15.0	13.8	12.8
Others	8.2	10.5	8.9	8.7	6.7	10.1

Source: DANE Continuous Home Survey.

or childcare. Available information on wages shows their increase has accelerated, as illustrated in the following section. This suggests the issue is one of reduced supply, at least in the thirteen major cities, where the number of unemployed has not increased.

Consumer inflation rose during the third quarter, largely because of supply shocks.

D. INFLATION AT SEPTEMBER

1. General Aspects

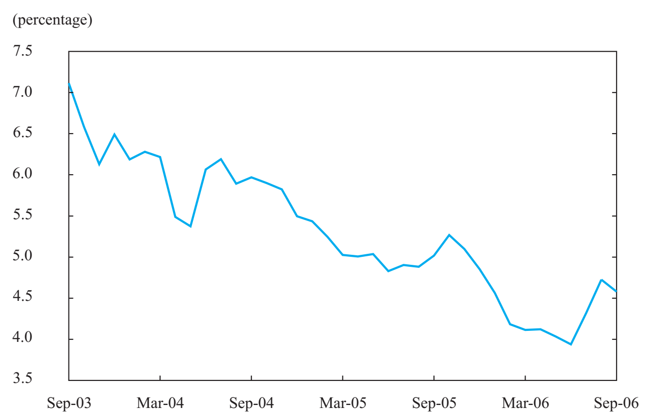
Annual consumer inflation was 4.6% at September. This is within the target range for 2006, but above the rate in June (3.9%) (Graph 16). The rebound in inflation during the third quarter was concentrated in foods and regulated goods and services, and related mainly to supply shocks occasioned by international prices for fuel and certain foods, as well as irregularities in farm production. However, depreciation during the second quarter also was a source of upward pressure (Table 5).

The outcome for September surpasses the forecasts in the June edition of this report (3.9%). The differences originate with foods and regulated goods and services, which exceeded the forecasts, and with non-tradables, which showed less than predicted inflation, while tradables performed as expected (Table 5).

The increase in total inflation was accompanied by higher core inflation. At September, the average of the three core inflation indicators (nucleus 20, CPI without food, and CPI without perishable foods, fuel and public utilities) was 4.2%, as opposed to 3.6% at

GRAPH 16

ANNUAL CONSUMER INFLATION



Source: Dane. Calculations by Banco de la República.

TABLE 5

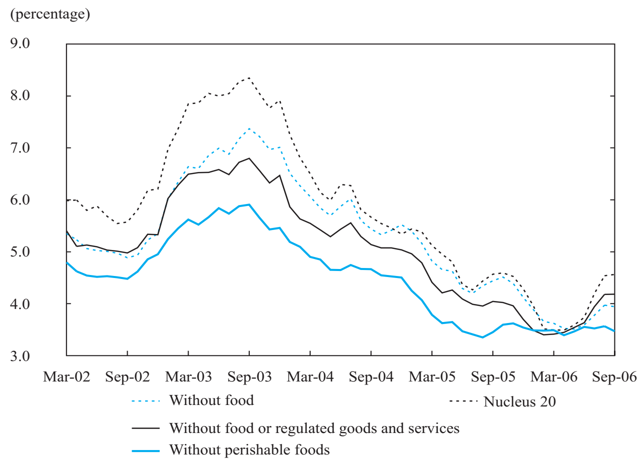
THIRD-QUARTER INFLATION IN 2006

	Inflation		Difference (Sep-Jun) pb	Acceleration pb	June Report Forecast
	Jun-06	Sep-06			
Total	3.9	4.6	64	64	3.9
Food	4.7	6.0	130	39	4.2
Without Food	3.6	4.0	40	25	3.8
Tradables	2.2	2.5	30	8	2.5
Non-tradables	4.6	4.2	(40)	(12)	4.6
Regulated Goods and Service	3.8	6.0	220	29	4.2

Source: Dane. Calculations by Banco de la República.

Graph 17

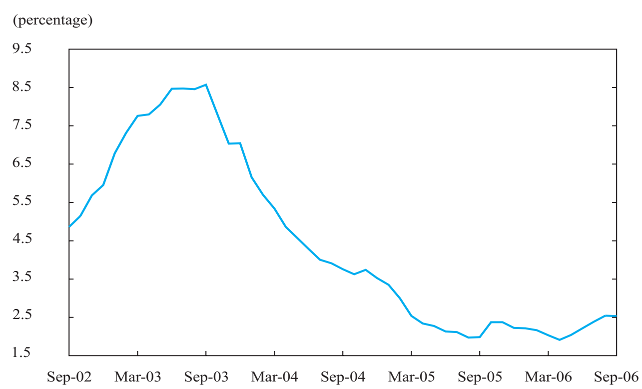
Core Inflation Indicators, Annual Variation



Source: Dane. Calculations by Banco de la República.

Graph 18

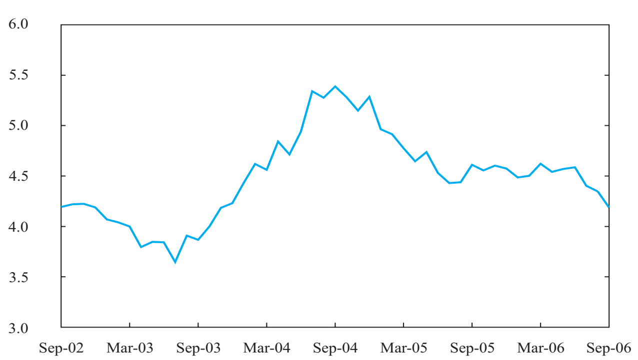
Inflation in Tradables without Food or Regulated Goods and Services, Annual Variation



Source: Dane. Calculations by Banco de la República.

Graph 19

Inflation in Non-tradables without Food or Regulated Goods and Services, Annual Variation



Source: Dane. Calculations by Banco de la República.

June (Graph 17). Despite the rebound, inflation is still below the central point in the target range set by Banco de la República for 2006.

As with the total CPI, some of the supply shocks in food and regulated goods and services also had a varying effect on core inflation indicators. The indicator for inflation without food or regulated goods and services, which is less exposed to these shocks, remained virtually stable during the quarter and, for the most part, so far this year. At September, this inflation measurement was 3.5%, which is no change from the rate in June 2006 and in December 2005.

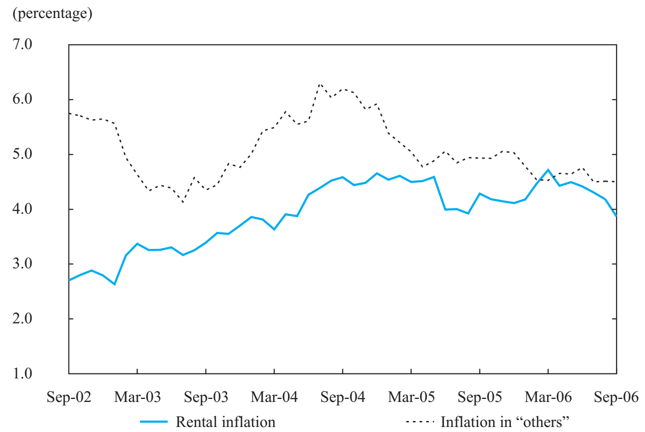
The stability of core inflation, without food or regulated goods and services, was the result of two opposite although not extreme tendencies in the sub-baskets that comprise this indicator: tradables and non-tradables. Tradable inflation without food or regulated goods and services was up by 32 bp during the quarter, an increase attributable to second-quarter depreciation. However, despite the rise (from 2.2% in June to 2.5% in September), it is still very low with respect to the targets (Graph 18).

In contrast, the last three months have seen a decline in inflation in non-tradables without food or regulated goods and services. This indicator was 4.2% at September, as opposed to 4.6% at June (Graph 19). The drop is explained by rentals, which showed 3.9% inflation at September and 4.4% at June (Graph 20). From the standpoint of income brackets, the reduction in rentals is concentrated, above all, in the upper income bracket, particularly in the city of Bogotá, where policies to reactive bank mortgage loans might be doing more to expand the housing supply. The strong increase in building construction during the second quarter is perhaps an indication of this.

Inflation in other goods and services comprising the basket of non-tradables ("others") also experienced a slight dip in the quarter: 4.5% as opposed to 4.8% at June (Graph 21). This decline occurred entirely between June and July, and is attributed essentially to positive performance in the areas of recreation, culture and entertainment. The prices for this sub-basket saw a great deal of stability in recent quarters and even declined in some cases. This could be due to an increase in the supply of these items and/or substitute goods. In this respect, it is important to emphasize the major effort at investment during the last three years in areas related to these services. This could have expanded their installed capacity to a great degree and provided an incentive to the competition.

Graph 20

Inflation in Rentals and "Others"a/. annual variation



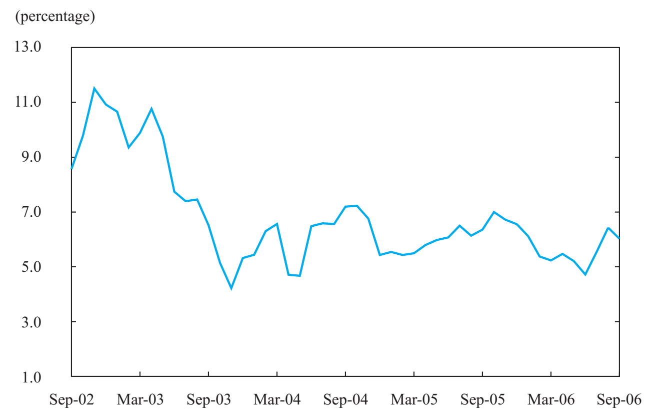
a/ Breakdown of non-tradable inflation without food or regulated goods and services.
Source: DANE. Calculations by Banco de la República.

2. Supply Shocks

As mentioned earlier, the rise in inflation during the third quarter was primarily the result of supply shocks and their impact on food and regulated goods and services. This contrasts with the situation in the first half of the year, when these were precisely the groups that did the most to lower consumer inflation. The March and June editions of this report warned these reductions in inflation might be temporary, and the outcome for September appears to confirm those predictions.

Graph 21

Food Inflation, Annual Variation



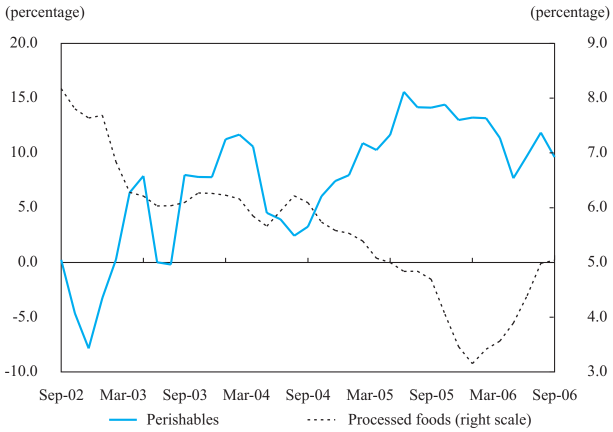
Source: Dane. Calculations by Banco de la República.

By in large, the weather in 2006 seems to have produced an unusual pattern in the country's food supply, making it more difficult to predict how food prices will behave. For example, the normal decline in perishable foods during the third quarter appears to have occurred earlier, towards the second quarter. This is because crops were harvested ahead of time, due to excessive rainfall during the first half of the year. These same weather conditions probably affected the productivity of other farming activities during the third quarter, reducing the harvests at that time year. This prevented the normal drop in the price of perishables and accelerated annual food inflation, which was 6.0% at September. It was 4.7% at June (Graph 21).

On the other hand, not all the acceleration in food inflation was concentrated in perishables, nor can it be attributed entirely to bad weather (Graph 22). Domestic prices for processed foods were up again in the third quarter, probably because of high international prices. Higher production costs due to rising international prices for different types of input (insecticides, herbicides and other products

Graph 22

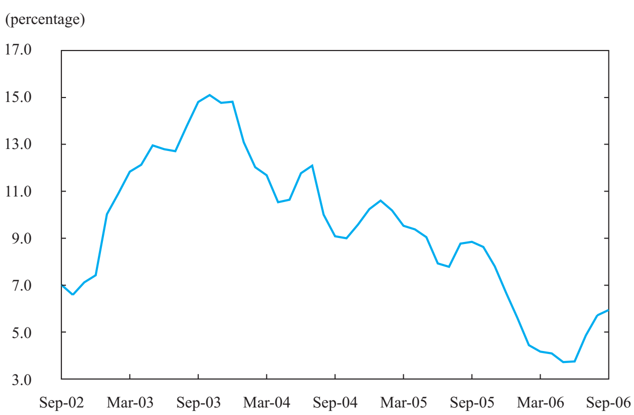
Perishable and Processed Food Inflation, Annual Variation



Source: Dane. Calculations by Banco de la República.

Graph 23

Inflation in Regulated Goods and Services, Annual Variation



Source: Dane. Calculations by Banco de la República.

related to petroleum derivatives) also spelled higher production costs for perishable foods.

By September, inflation in regulated goods and services was 5.9%, up from 3.9% at June (Graph 23) and above the forecast published in the June edition of this report (4.2%). The 220 bp rebound was due to increases in the three components of inflation in regulated goods and services: public transportation rates, fuel prices and the price of electrical energy. A good portion of the price increases seen during the third quarter is associated with higher international fuel prices and a growing exchange rate. Domestic gasoline prices in Colombia continue to lag behind external prices for this item, and the sharp rise in the latter between March and August forced an increase in domestic price hikes, which affected transportation rates.

It also is important to point out that the prices of regulated goods and services during the last two years played an important role in the course of non-food inflation. That period saw a number of shocks (changes in regulations on public utility rates, new criteria for setting transportation rates, the introduction of new types of fuel), which have made it difficult to predict how the items in this sub-basket will behave price wise .

E. Determinants of Inflation

1. The Exchange Rate

In the June edition of this report, the indication was that the effects of depreciation in the exchange rate during the second quarter would be reflected in consumer inflation only during the third and fourth quarters, and that these effects would be modest, given the scope and duration of the shock. The make-up of inflation in recent months appears to confirm those predictions. Inflation without food or regulated goods and services was up by 32 bp, lifting total inflation by just 8 bp, which is consistent with the prediction in the June report. Foods, especially perishables and imported foods, also experienced price hikes that can be attributed to depreciation and to higher international prices.

Among other factors, the increase in food prices can be attributed to depreciation during the second quarter and to higher international prices.

Producer prices were quicker to respond to the fluctuations in the exchange rate than consumer prices. This is demonstrated by the fact that the producer price index (PPI) saw more of an increase during the second quarter (333 bp) than in the third (119 bp). On this occasion, the upward pressure was not so much from the imported PPI as in the production and consumption index, even for goods of industrial origin. Apparently, the recent depreciation has had a delayed effect on producer inflation that was not properly assessed before. At any rate, it is important to bear in mind that part of the rise in inflation in produced and consumed goods can be related to higher external prices, especially for fuels and other raw materials such as iron and steel.

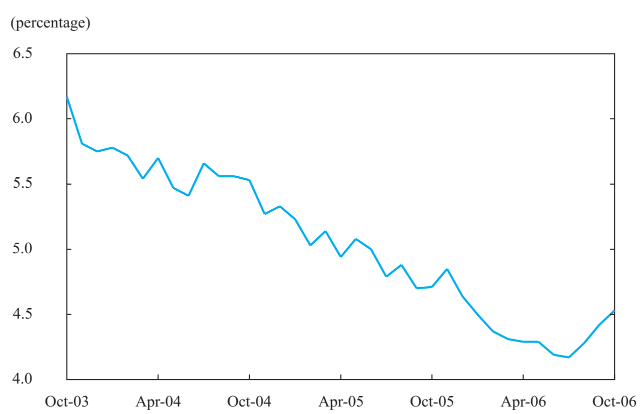
2. Expectations

Various surveys and measurements done by the Bank show expectations of inflation rose during the third quarter, interrupting the downward tendency observed since the start of the year. For example, the monthly survey in October showed the expectation for inflation at twelve months is 4.5%. It was 4.2% in the second-quarter surveys (Graph 24). A similar rise was detected when analyzing the trend in the differential between indexed and non-indexed domestic government bonds (inflation-denominated TES and fixed-rate TES). The expectations estimated at five years went from 4.0% at June to 4.7% at September.

The increase in expectations coincides with the increase in inflation in July and August, and suggests they are still an important adaptive component. Accordingly, this variable should have ceased to be a disinflationary factor during the third quarter, as occurred during the first half of the year.

Graph 24

Expectations on Inflation a Year from Now



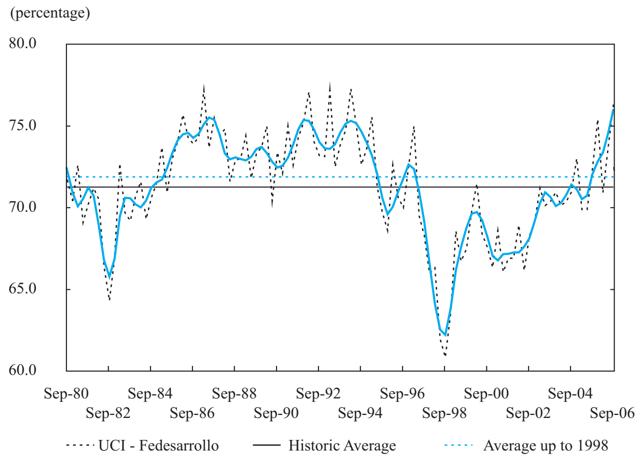
Source: Banco de la República, monthly expectation survey covering banks and stock brokers.

3. Surplus Capacity and Pressures Caused by Demand

So far this year, economic growth has fluctuated around 6%, which exceeds the historic average for Colombia. This is similar to the state of domestic demand, which is up by about 9.5%. Moreover, this momentum comes after more than two years of growth above the historic average.

Graph 25

Use of Installed Capacity



Source: Fedesarrollo.

The sustained force of economic growth would support, in principle, the idea of a major decline in surplus production capacity and an increase in the likelihood of price hikes associated with demand. In fact, the indicators on hand show a major reduction in surplus production capacity in the industrial sector. Even current figures on use of capacity apparently are close to historic highs (Graph 25).

Then again, no clear pressure has been identified so far with respect to demand-pull inflation based on developments in the CPI. The indicator showing the closest correlation with surplus production capacity – annual non-tradable inflation without food or regulated goods and services – has seen some reductions contrary to what would be expected. Up to September, part of these reductions was possible because of the way rentals performed, but also because of lower prices for other services, such as entertainment and other expenses.

Based on the foregoing, one can conclude there may have been factors during the year that helped to avoid pressure from demand, despite the considerable force of economic growth. Strong investment is one of these factors. Another is the pace of capital accumulation, all of which has expanded production capacity not only in the industrial sector, but also in non-tradable sectors such as commerce. Likewise, the momentum in home construction should be quickly adding to the supply in that market, thus curbing possible increases in rentals.

Factors such as heavy investment, productivity gains and few expectations of inflation would have curbed the emergence of pressure on prices so far this year.

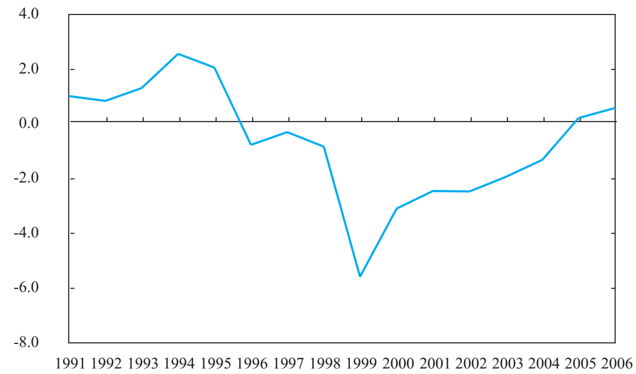
There also is evidence of positive shocks to productivity, although some may be cyclical rather than permanent. This occurs, for example, when companies minimize the adjustment in their workforce for cost reasons and put it to more intensive use to satisfy an increase in demand. However, there also are reasons to believe that some of the rise in productivity is more permanent in nature. For example, many companies imported and modernized machinery and equipment in recent years. This probably raised total factor productivity, as well as installed capacity. There also are signs of increased competition among companies, some of which may be the result of globalization and Colombia's growing involvement in the world economy (See Box 1). In 2006, all these factors would have made way for added growth without a major impact on prices. Finally, we cannot rule out the possibility that surplus capacity in other sectors for which no information is available might be larger than surplus capacity in industry.

The Bank has not changed its output gap estimates with respect to the June report (+0.5 for 2006), even though growth exceeded the predictions (Graph 26). In part, this is because of the positive way non-tradable inflation has performed in the last few quarters and points to the possible presence of the factors mentioned above. By and large, based on this gap, demand-pull inflationary pressures can be said to have been non-existent or very limited up to September. There is still a great deal of uncertainty in calculating this gap, as suggested by the confidence interval that usually accompanies specific estimates. That interval is between -0.8% and -1.8% for 2006.

GRAPH 26

OUTPUT GAP a/

(Percentage of Potential GDP)



a/ The figure for 2006 is projected.
Source: Banco de la República.

4. Wages and Productivity

Increases in wages and other costs can signal the possible appearance of inflationary pressure, which is why they must be taken into account in any situation analysis concerning inflation. Information currently available shows the rise in nominal wages could be accelerating in sectors such as industry and commerce. According to the monthly sample of manufactured gods (MMS), the nominal increase in industrial wages in August was slightly above 9.0%, which is more than in the first and second quarters (7.8% and 8.1%, respectively. The retail trade sample reflects a similar situation with respect to wages in commerce. In principle, if this momentum continues, the risks of pressure emerging in the mid-term could increase.

Even so, the acceleration in wage hikes would appear to have been offset, at least in part, by the productivity gains. As indicated in earlier editions of this report, indicators of this measurement can only be obtained indirectly, through the use of other variables. The following is the situation with output per hour worked, based on the strategy defined in previous reports. For the time being, it is the best indicator of work productivity.

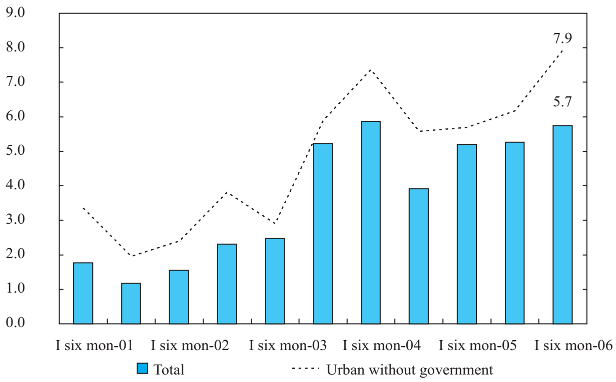
According to information from the quarterly national accounts, urban GDP without government rose 7.9%[7] during the first half of the year compared to the first six months of 2005. The first six months of 2006 also saw an increase of 4.5% in the total number of employed persons in the thirteen major cities. Therefore, it is estimated that output per urban worker (Y/L) would have increased by 3.3% during the first half of the year, and labor productivity (Y/H)

Wage hikes in the industrial and commercial sectors could be accelerating.

[7] Urban GDP without government is defined as total GDP without agriculture and mining activities or government services.

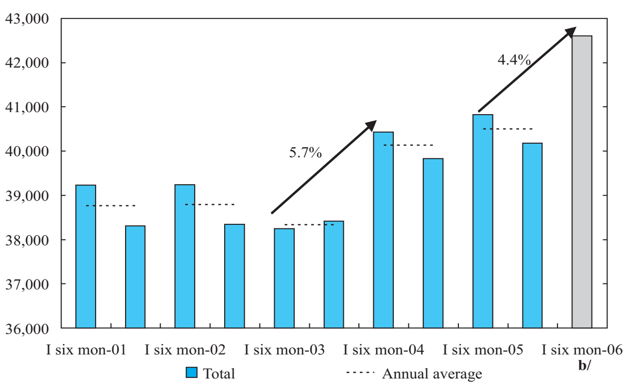
Graph 27

(A) Growth in Output



Source: Dane. Calculations by Banco de la República.

(B) Urban Output per Hour Worked a/



a/ GDP without government services, agriculture and mining.
b/ Projection by Banco de la República
Source: Banco de la República.

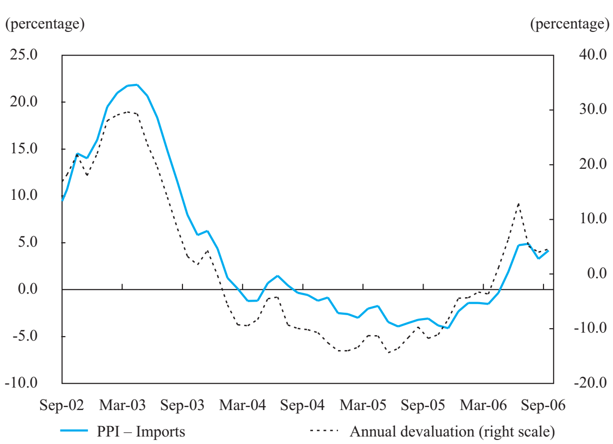
would have grown by 4.4% (H is the total number of hours worked) (Graph 27).

Considering the real indicators available up to August (industrial production, retail sales and building permits), the increase in output could have accelerated during the third quarter of 2006. Moreover, according to the CHS results for September, job creation in the thirteen cities appears to be at a standstill. This means labor productivity in the third quarter could be increasing more than was anticipated in the June report (Graph 20).

As mentioned earlier, there could be a major cyclical component in these productivity gains. In other words, they might not be entirely permanent and would disappear with a slowdown in economic activity, owing, for example, to an external shock, or simply less growth in investment. In this case, some of the productivity gains would invert, as future wage increases at rates similar to the current ones would place more pressure on prices than is now the case.

Graph 28

Annual PPI Import Inflation and Devaluation



Source: Banco de la República.

5. Other Cost Pressures

The second and third quarters saw a rebound in producer inflation, partly because the exchange rate depreciated, although higher prices for various imported raw materials and fuel also contributed to this outcome (Graph 28). These hikes would have brought pressure to bear on production costs in certain sectors, not to mention the transportation bottlenecks that also raised operating costs for a number of companies. So far, these pressures appear to be limited, but they might change in the near future, given recent developments in the exchange rate. Nonetheless, if the growth in aggregate demand persists, the existence of cost pressures could become more evident. In point of fact, the surveys show businessmen expect raw materials to increase in price and regard the cost of these materials as an obstacle to economic growth.

Globalization and Inflation

Martha López P.*

As of the nineties, the world economy has been characterized by obvious integration at the commercial level and in capital flows. This is known as economic globalization and has been accompanied by policies for economic and financial deregulation in many countries and by the revolution in information technology. The strong economic growth in China and India has also advanced the process of globalization.

International trade increased during the nineties in both the industrialized and developing countries (Graph B1). This was due, in part, to geographic deconcentration in the production of manufactured goods and to the growing importance of emerging economies to world trade (Helbling et al., 2006).

One of the most important aspects of economic globalization is its contribution to keeping inflation low, which makes it possible to apply less restrictive economic policies. Nonetheless, the question is whether or not this is a sustainable situation, or if the threat of future inflation exists. To answer this question, one must analyze the channels through which globalization affects inflation. The following are the most important ones.

a. Trade Integration and Lower Prices (Increased Competition)

Globalization has made it easier for foreign producers to access markets. This tends to fuel competitive pricing in local markets and to raise imports. It also prompts the relocation of production for many goods traded internationally and a drop in their relative prices. The reduction in relative prices for textiles is a well-known example and was accompanied by the rapid entry of emerging markets into world trade. Because such prices are a component of the price charged to consumers, their decline helps to lower inflation. The increase in competition also works indirectly to curb local prices to the producer, the price of input and the mark ups in certain industries, given the availability of internationally-produced substitute goods that are close at hand.

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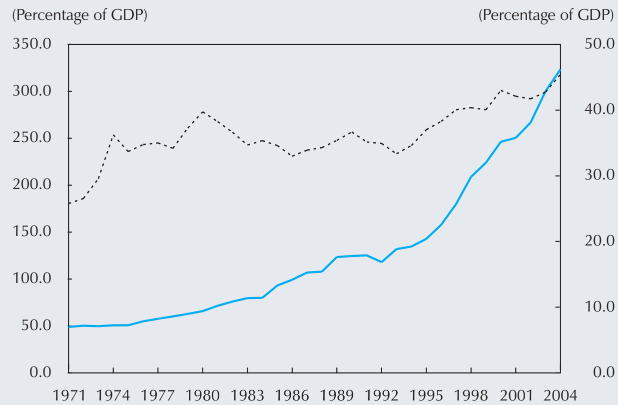
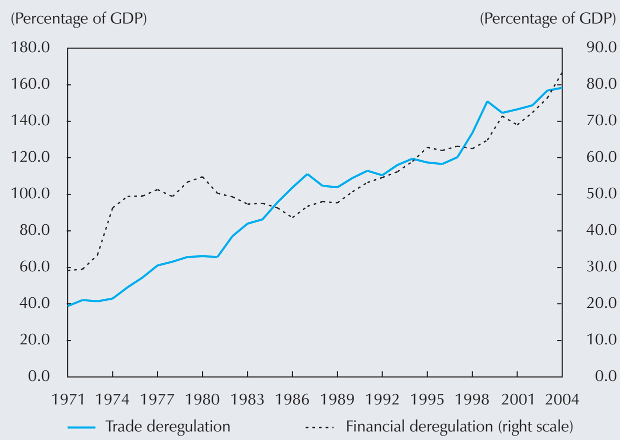
* The author is an expert in macroeconomic models with the Programming and Inflation Department Special Affairs Section. Responsibility for the findings and opinions expressed in this article is hers alone and its contents imply no commitment on the part of Banco de la República or its Board of Directors.

Graph B1
Trade and Financial Deregulation

(A) Industrialized Countries



(B) Emerging Countries



Source: Lane and Milesi-Ferretti (2006).

Just how strong are these effects? The empirical evidence suggests the general level of prices has not been influenced significantly by lower prices for imported goods. According to an IMF study (Helbling *et al*. 2006), for the developed economies as a whole, on average, only about one tenth of a drop in the price of imported goods is passed through to total inflation during the first year, and it practically disappears after two years. When interpreting these findings, it is important remember that the impact of reductions prompted by outside competition are similar in nature to the perhaps more “traditional” effects of so-called supply shocks, such as a change in food and energy prices. If the monetary authority does not modify its policy objectives in the wake of a shock and keeps its interest rates at a level consistent with its objectives, the impact of the shock will be temporary and inflation will return to the target level set by the monetary authority.

In that type of environment, as Rogoff (2006) indicates, the drop in prices in the sectors most affected by globalization will be offset by rising prices in other sectors, partially because consumers will use their increased buying power to elevate their consumption of other goods.

b. Downward Pressure on Domestic Wage Growth

There is evidence that globalization has helped to curb growth in unit labor costs in recent years. Accordingly, the increased supply of relatively unskilled labor associated with the appearance of China and other Asian countries on the world economic scene as low-cost production centers has exerted downward pressure on the growth in nominal wages in other countries.

c. Productivity Growth, Aggregate Supply and Relative Prices

Increased pressure associated with innovation and aspects other than price competition can raise productivity growth. These gains tend to lower prices. This has been a particularly important channel in the developed countries. For example, three of the world's largest economies: the United States Japan and Germany, have shown a tendency towards improved productivity in recent years (O'Neil *et al.*, 2006).

d. Less Response from Inflation to Fluctuations in Domestic Output

Globalization can affect the extent to which inflation responds to fluctuations in output. There are different reasons why this occurs. For one thing, the prices of many goods are determined more and more by external supply and demand, rather than domestic factors (Kohn 2006). By the same token, increased international competition undermines the price-setting ability of local firms, limiting their capacity to raise prices during economic booms.

According to figures on a number of industrialized countries, inflation during the last two decades has responded less to fluctuations in output. Helbling *et al.* (2006) estimated a Phillips curve that relates annual inflation to a lag in the same and a measurement of surplus capacity in the economy for a panel of industrialized countries. Oil price changes were included to tap an important source of major changes in inflation. Also included were measurements of monetary policy credibility. The results suggested that price sensitivity to domestic conditions has declined during the last two decades. Trade deregulation apparently has made prices less responsive to output. The results of the estimates also confirm that better monetary policy management during the last two decades has reduced the persistence of inflation (Table 1).

Table B1
Estimates of Output-Inflation Sensitivity and Persistence of Inflation in Industrialized Countries

Output-Inflation Elasticity	
1960	0.3
1983	0.3
2004	0.2
Persistence of Inflation	
1960	0.6
1983	0.7
2004	0.6

Source: Helbling *et al.* (2006).

e. Growth of Emerging Economies and Recent Increase in Oil and Other Commodity Prices

In the short-term, there are risks of lower or higher inflation worldwide, as a result of globalization. The risks of higher inflation are concentrated primarily with the same momentum that has exerted downward pressure on the price of manufactured goods; that is, the growing integration into the global market of the major emerging economies in the world trade system. China and India are a case in point. Both are obliged to import oil and other commodities to keep their productive apparatus running.

f. Policy Incentives

Monetary policy efforts to keep inflation low and stable are among of the factors that have done much to reduce global inflation in recent decades. Policy-makers, in particular, have learned the lessons of the seventies, when there was an attempt to exploit the trade off between inflation and unemployment. However, the result was higher inflation with more unemployment. As indicated by Helbling *et al*. (2006), globalization can limit the ability of policy-makers to stimulate output through a lax monetary policy, given the adverse effect that sort of policy can have on capital flows. Although central banks in the industrialized countries are not likely to lower their inflation targets as a result of increased globalization (since these targets are already low), in emerging countries caught up in disinflationary processes, globalization can continue to influence inflation because of its impact on the targets set by monetary authorities.

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II. MACROECONOMIC OUTLOOK

The outlook for the world economy in 2007 remains favorable, although with less growth and lower terms of trade for Colombia. The United States economy is expected to see less growth in 2007 than in 2006. No additional rate hikes by the Fed are anticipated for the coming quarters. The price increases forecast for Colombia's principal export products were lowered slightly.

In the central scenario, no pressure towards depreciation in the coming quarters is anticipated. In the mid-term, the current account deficit in the country's balance of payments should remain at around 2.5% of GDP, on average.

The Colombian economy is expected to keep growing. In 2006, growth should be between 5.5% and 6.5%, which implies acceleration with respect to 2005. In 2007, the economy should continue to expand at a good pace.

The inflation target for 2006 is likely to be met. Total inflation at year's end is expected to be within the target range set by the Board of Directors, but above the rate forecast in the last edition of this report (3.9%). Supply shocks on foods and regulated goods and services are responsible for the increase in the prediction.

A. THE EXTERNAL CONTEXT, BALANCE OF PAYMENTS AND EXCHANGE RATE

1. General Aspects

Prospects for world growth during the remainder of the year and in 2007 remain favorable. The likelihood of less growth in the United States economy is the major change with respect to the previous quarter. The Euro zone, Japan and the emerging economies should continue to grow at a good pace, although probably less than they have so far this year.

Prospects for world growth during the remainder of the year and in 2007 remain favorable.

The United States economy will continue to experience slow growth. The unexpected slowdown in the housing market would have major implications for growth at the end of this year and in 2007. Although the preliminary figure for third-quarter growth was far less than what the market anticipated (1.6%), growth during 2006 still is expected to be between 3% and 3.4%. However, the predictions for 2007 were lowered a bit (from 2.8% to 2.6%). Good corporate earnings and non-residential investment are expected to offset some of the decline in residential investment. Household consumption could show some moderation, owing to the negative wealth effect derived from unwinding home prices, although this could be offset in part by the increase in available income that would come from lower fuel prices (Table 6).

The big fear with respect to the United States economy is the impact the slowdown in the housing market could have. The drop in home prices can affect economic growth in two ways. The first and apparently the most important, according to available studies, is the wealth effect. Studies indicate[8] that a

[8] See the October 2006 edition of The Economist for a concise presentation of these findings. Studies such as those by Bayoumi and Edison (2003), Otrok and Terrones (2006), OCDE (2000), Greenspan (1999) and Brayto, Davis and Tupid (2000) offer similar evidence.

Table 6

Growth Forecasts for Colombia's Major Trading Partners a/
(percentage)

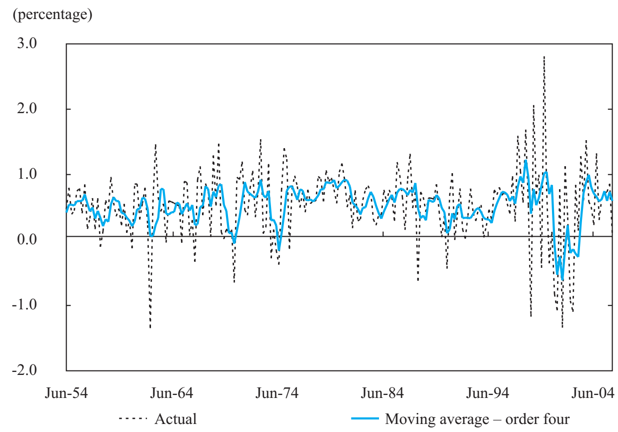
	Actual 2005	Forecast for			
		2006, at:		2007, at:	
		Oct-06	Jul-06	Oct-06	Jul-06
Major Partners					
United States	3.2	3.5	3.4	2.6	2.8
Ecuador	3.9	3.6	3.2	3.4	3.1
Venezuela	9.4	8.7	7.9	6.2	5.3
Other Partners					
Euro zone	1.4	2.2	2.2	2.1	2.1
Japan	2.7	2.8	2.9	2.2	2.2
China	9.3	10.4	9.6	9.1	8.9
Peru	6.1	6.3	5.5	5.3	4.9
Mexico	3.1	4.5	4.1	3.4	3.4
Chile	5.9	5.0	5.4	5.3	5.3
Argentina	8.9	7.8	7.6	5.9	5.3
Brazil	2.5	3.2	3.6	3.5	3.6
Bolivia	3.7	3.4	3.1	3.1	3.1
Developed economies	3.1	3.2	3.2	2.5	2.7
Developing economies	6.3	6.2	5.8	5.0	4.5
Total Trading Partners	**4.8**	**4.7**	**4.0**	**3.4**	**3.1**

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

change of US$100 in household wealth could mean a variation of US$3 to US$5 in household consumption. Thus, in the last fifty years, the increase in wealth has helped to accelerate household consumption by 0.5 pp per year (Graph 29). The second way is through residential investment and its extensive relationship with other economic sectors. Although it accounts for only 6% of GDP, a sharp drop in residential investment could have no small impact on growth, in addition to affecting the increase in related sectors. Some of this already would be evident in the preliminary growth figures for the third quarter.

Graph 29

Additional Growth in Consumption Due to the Wealth Effect



Source: Datastream. Calculations by Banco de la República.

As illustrated, the way the housing market performs is crucial to U.S. economic performance. A dramatic slowdown could seriously weaken the economy, causing monetary authorities to lower interest rates sooner. Then again, because of the uncertainty on this point, our base scenario contemplates a moderate slowdown in the housing sector with a soft impact on household consumption.

The forecast for growth in 2007 In the Euro zone and Japan is slightly less than the rate so far this year (2.1% and 2.2%, respectively). The good momentum in domestic demand, especially investment, will continue to fuel the economies of both these regions. Although net external demand continues to play a positive role in growth, its contribution in 2007 will be less than during the two previous years, since growth in world demand is expected to decline, especially demand in the U.S. economy. More restrictive fiscal policies might be implemented. For example, Germany is expected to increase its VAT and Japan is likely to place controls on public spending. Measures of this type would affect growth.

Nonetheless, the upcoming quarters are likely to see the emerging economies continue to grow, particularly China. For that country, the excellent developments in investment, despite measures adopted by its monetary authority, point to solid growth in 2007 (9.1%), slightly more than was expected three months ago.

The growth projected for other emerging economies and Colombia's major trading partners will continue to be important, compared to the two years before, but will be slower. The forecast for Venezuela is 6.2% growth and 3.4% for Ecuador. It is worth remembering that both these economies are highly dependent on what happens to oil prices. And, if oil prices continue to decline, as they have up to now, the impact on growth could be more than the estimate in this report.

Our major trading partners should experience 3.4% growth in 2007, which is less than the estimate for 2006 (4.7%).

Our assumption in the base scenario is that the Fed will leave interest rates at 5.25% during the remainder of 2006 and the first six months of 2007.

In short, the estimate for the base scenario is 3.4% growth for our major trading partners in 2007. This is less than the estimate for 2006 (4.7%) but more than was predicted in the June report (3.1%). The latest estimate is possible thanks to the increase in growth now expected for Venezuela and Ecuador, which would compensate for the reduction in the U.S. forecasts.

More moderate growth in the United States economy, coupled with the recent drop in energy prices, should help core inflation in that country to move towards levels more consistent with the implicit targets of the monetary authority (between 1% and 2%). In this sense, the outlook for monetary policy with respect to inflation seems clearer today than three months ago and supports the expectation of few or no additional interest rate hikes by the Fed. As a matter of fact, in this report, most analysts lowered their forecasts for U.S. interest rates compared to those published in the June edition. Now, the consensus is that no additional hikes are likely during the remainder of the year and there could be reductions in the second half of 2007. The June report predicted additional increases of 25 to 50 bp with respect to the current rate (5.25%). This being the case, our assumption for the base scenario in this report is that interest rates will remain at 5.25% during the remainder of 2006 and the first six months of 2007. As to the benchmark rates of the central banks in Europe and Japan, gradual increases are expected. These would be consistent with currently moderate inflation and with the good growth anticipated for those economies.

Three months ago, high oil prices were one of the biggest concerns for world inflation. Now, the story is a bit different, given the sharp drop in oil prices to around US$60 a barrel. Even so, there has been no similar reduction in the forecasts for 2007, as the amount of growth still anticipated for the world economy is expected to exert some pressure on prices. Added to this are the risks associated with the demand and supply shocks that might be triggered by the new winter season and recurrent geopolitical conflicts. In keeping with the analysts,[9] our prediction in this report is WTI at US$66 a barrel, on average, during 2007.

Certain commodity prices also have declined, but not as much as the price of oil.[10] According to The Economist Intelligence Unit (EIU) forecasts for 2007 and 2008, commodity prices, based on the World Commodity Forecast (WCF) without energy, would be at levels similar to those in mid-2005 and slightly above those contemplated in the June report. These predictions

A moderate slowdown in the U.S. economy is expected, but with no major repercussions for the emerging economies.

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9 According to the International Energy Agency (IEA), *The Economist Intelligence Unit* (EIU) and the International Monetary Fund.

10 Furthermore, recent weeks began to witness corrections in prices for certain commodities, such as natural gas, gold and nickel, among others.

assume that hedge funds would not be decisive to medium and long-term trends in price (Graph 30).

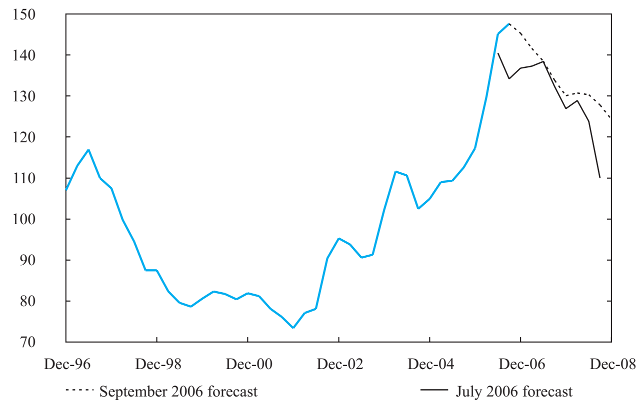
The forecasts made three months ago were lowered somewhat in view of the above. The most important reduction was in the price of oil exported by Colombia, which dropped by more than US$10 dollars for 2007 (Table 7). The forecasts for coal prices declined as well. Even so, the levels expected in 2007 for these and other products are still historically high.

A more pronounced drop in the housing market in the United States is the biggest risk.

Our central scenario anticipates a gradual and moderate slowdown in the United States economy. This would have no major implications for the emerging economies. However, there are two types of risk that could change that scenario. The first, and probably the most likely, concerns a far bigger drop in the housing market than what is anticipated in the base scenario. The result would be a more pronounced slowdown in the U.S. economy than anticipated, and perhaps in the other countries, exerting major downward pressure on commodity prices and on interest rates the world over. The net effect on emerging countries like Colombia would depend on how much terms of trade would suffer. A considerable reduction in the price of major exports, coupled with a sharp drop in world demand, would seriously undermine conditions for the long-term growth of these economies, even if accompanied by lower external interest rates. In fact, this last effect could be neutralized if, at the same time, there is an increase in aversion to risk that moves international capital away from emerging markets.

GRAPH 30

PRICE INDEX FOR ALL COMMODITIES, WITHOUT OIL (WCF)



Source: *The Economist Intelligence Unit* (EIU).

TABLE 7

INTERNATIONAL PRICES

	Average			Forecast for 2006		Forecast for 2007	
	2003	2004	2005	Current [a/]	Previous [b/]	Current [a/]	Previous [b/]
Coffee (ex-dock) (dollars/pound)	0.7	0.8	1.1	1.2	1.2	1.0	1.0
Oil (dollars/barrel)	29.0	37.3	49.8	56.7	59.0	51.6	61.8
Coal (dollars/ton)	28.2	36.1	47.9	47.9	47.9	46.1	50.2
Ferronickel (dollars/pound)	1.4	2.3	2.4	3.1	2.4	2.6	2.2
Gold (dollars/troy ounce)	362.5	409.3	445.0	610.2	560.2	670.3	590.2

a/ Estimated balance of payments at September 2006.
b/ Estimated balance of payments at July 2006.
Source: Banco de la República.

Another risk is a slowdown that is not enough to allow US inflation to drop.

A second risk that has recently come to the attention of many analysts concerns a very moderate slowdown in the United States economy, not enough to allow inflation to drop. In principle, less of a slowdown can have a positive effect on emerging economies. However, in a context of higher inflation, that effect would be short-lived. One would expect monetary policy to be far more contractionary in the medium and long term, and accompanied by an increase in overall risk perception. At present,, this last risk is associated with the downward revision of historic growth figures for the United States, which resulted in a re-estimate of that economy's growth potential at somewhere between 2.5% and 3%, but not above 3%, as was estimated previously.

2. Balance of Payments in 2006 and the Medium Term

The latest revision of the projected balance of payments for 2006 shows a current account deficit of US$2,154 m (1.6% of GDP). The increased deficit with respect to the figure published in the June report (1.2% of GDP) is explained by the vigorous growth in imports, thanks to good economic growth. This would give the Colombian economy a US$237 m deficit in the trade account (-0.2% of GDP) (Table 8).

The current account deficit is expected to be adequately financed, largely with resources from net foreign direct investment, which has been extremely

Table 8

Colombia's Balance of Payments

	Millions of dollars			Percentage of GDP		
	2004	2005 a/	2006 b/	2004	2005 a/	2006 b/
I. Current Account	(938)	(1,981)	(2,154)	(1.0)	(1.6)	(1.6)
A. Goods and non-factor services	(333)	(507)	(2,173)	(0.3)	(0.4)	(1.6)
1. Goods	1,346	1,595	(237)	1.4	1.3	(0.2)
2. Non-factor services	(1,679)	(2,103)	(1,937)	(1.7)	(1.7)	(1.4)
B. Factor income	(4,332)	(5,563)	(4,732)	(4.4)	(4.5)	(3.5)
C. Transfers	3,727	4,089	4,750	3.8	3.3	3.6
II. Capital and Financial Account, and Change in Gross International Reserves	6,021	5,439	2,498	6.1	4.4	1.9
A. Net direct Investment	2,975	5,751	4,047	3.0	4.7	3.0
B. Other capital movements c/	3,046	(313)	(1,549)	3.1	(0.3)	(1.2)

a/ Preliminary.
b/ Projection .
c/ Includes operations in the public and private sectors, errors and omissions, and the variation in gross international reserves.
Source: Banco de la República.

dynamic in the oil, coal, manufactured goods and service sectors. These estimates are based on the assumption that calm will prevail on the financial markets during the second half of the year.

The current account deficit will continue to average 2.5% of GDP during the next few years.

Banco de la República's medium-term projections indicate the balance of payments deficit in the current account will remain at 2.5% of GDP, on average, for the next five years. This scenario is based on the absence of major negative shocks affecting the current account or the flow of external financing. It also assumes relatively stable revenue from oil and coal exports, at around 4.2% and 2.0%, as respective shares of GDP. At any rate if the recent drop in oil prices proves to be more than temporary and continues in the future, the current account deficit could be even higher than the estimate in this report, without reaching levels that are a cause for concern.

B. THE INTERNAL CONTEXT

1. Short-term GDP Forecast

Available figures on domestic demand in the second half of 2006 suggest the momentum observed during the previous quarters will continue. In the absence of the negative supply shocks suffered during the first six months, the second half of the year is expected to see more real growth in exports than the first, and this growth should continue at a good pace, given the force of domestic demand with respect to both consumption and investment.

The central scenario of the GDP forecast points to growth somewhere between 5.5% and 6.5% for 2006. This exceeds the prediction in the June report, which was around 4.8%. Table 9 shows the forecasts on the demand side for the mid-point in that range.

The average increase in household consumption during the first six months of 2006 was 5.3%, and similar growth is forecast for the rest of the year, probably with some acceleration. The stepped-up growth in consumer loans, the increase in retail trade registered by DANE (real rates above 10%) (Graph 31), and available data on imports of goods for household consumption are the elements that suggest this pattern. The indicators in the Fedesarrollo consumption survey remain high, despite a slight dip in the third quarter (Graph 32).

Available figures suggest the momentum in domestic demand has continued during the second half of the year.

The increase in coffee production during the second half of the year is one factor that could have an especially positive impact on available household income and on consumption in particular. The coffee harvest in 2006-2007 is expected to be better than it was last year.

The assumption in the central scenario for the second half of 2006 is that government consumption would be up by nearly 5.0%, implying 3.5% growth for the year. This increased momentum would be possible become the Electoral Assurances Act is no longer in force. It was effective until May,

Table 9

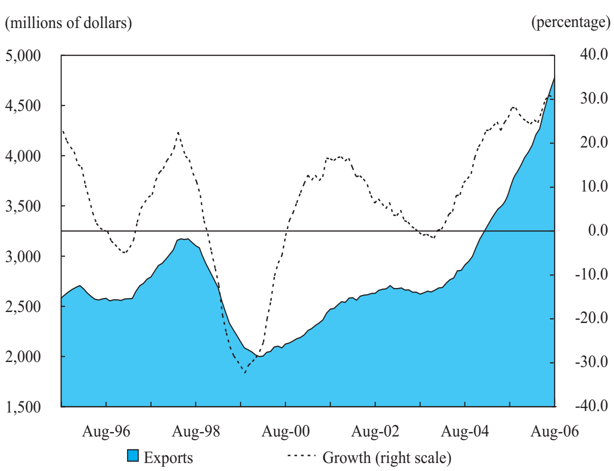
Real Annual GDP Growth by Type of Expenditure
(percentage)

	2004	2005 [a/]	2006 [b/]
End Consumption	**4.8**	**4.8**	**5.0**
Households	6.0	4.7	5.4
Government	1.1	4.8	3.5
Gross Capital Formation	**15.6**	**25.6**	**25.8**
Gross Fixed Capital Formation (GFCF)	15.0	18.8	15.4
GFCF without Civil Works	22.0	16.7	15.9
Civil Works	(7.9)	28.2	13.8
Variation in inventory	28.0	156.0	118.7
Domestic Demand	**6.6**	**8.5**	**9.3**
Total Exports	**10.0**	**5.5**	**6.7**
Total Imports	**19.8**	**21.7**	**21.3**
GDP	**4.9**	**5.2**	**6.0**

a/ Preliminary.
b/ Mid-point projection in the 5.5% to 6.5% range.
Source: Dane. Calculations by Banco de la República.

Graph 31

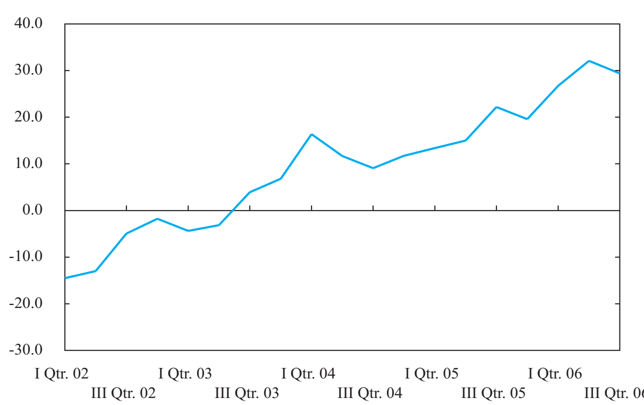
Imports of Consumer Goods
(Accumulated in 12 months)



Source: DANE.

Graph 32

Fedesarrollo Consumption Survey:
Average Index [a/]



a/ Average of several indexes; namely, consumer confidence, consumption expectations, and economic conditions.
Source: Fedesarrollo.

because of the presidential elections. However, there is a great deal of uncertainty about the increase in government spending at the regional level. Accordingly, for 2006, a growth range between 3.0% (low) and 4.0% (high) is defined for the extreme scenarios.

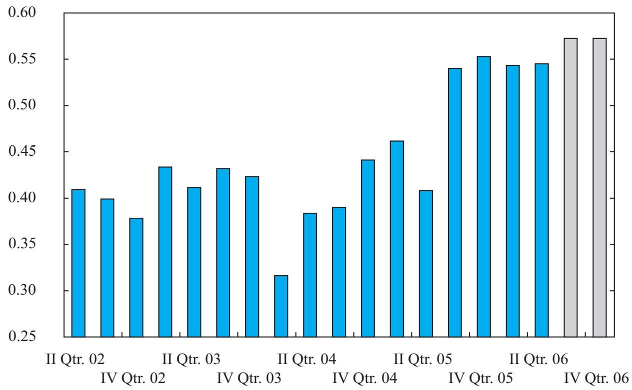
Investment will continue to make an important contribution to domestic demand and to GDP growth during the remainder of 2006. The forecasts point to more investment in civil works during the second half of the year than in the first. Even so, the annual variations would decline (from 25% to 5%), mainly because of a higher base of comparison in the second half of 2005 (Graph 33).

There is considerable uncertainty about how the construction and building sectors will perform during the second half of the year. The DANE construction census shows less of an increase in ongoing works effective in the second quarter than in previous periods. As a result, construction items would contribute less to the aggregate value of this sector during the last six months of the year. However, the surge in home loans and mortgages and the increase in building permits (40% on average between July and August) suggest the momentum observed in the second quarter is likely to continue, at least until the end of 2006.

GRAPH 33

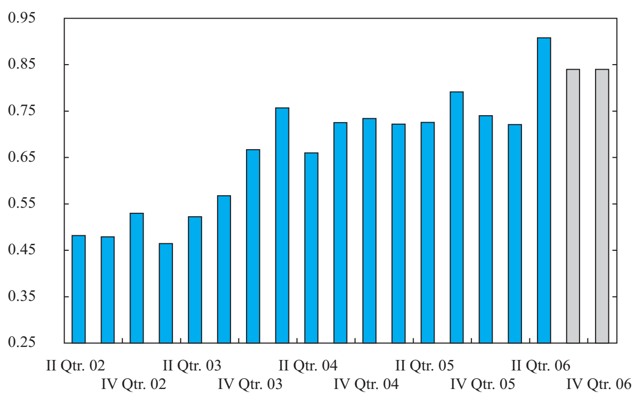
(A) CIVIL ENGINEERING PROJECTS AND WORKS

(Trillions of 1994 pesos)



(B) CONSTRUCTION WORKS AND BUILDINGS

(Trillions of 1994 pesos)



Note: The third- and fourth-quarter figures for 2006 are projections by Banco de la República.
Source: DANE.

Given these elements, an 11.1% increase in construction during 2006 is assumed for the GDP central scenario. There are two alternative scenarios. One is high, with real GDP in home building remaining at levels similar to those in the second quarter of 2006. This would imply annual growth rates near 25% during the last six months of the year. The other scenario is low. It assumes that home building will return to the average levels of the previous quarters (implying about 1.0% real growth during the second half of the year).

Recent years have seen a sharp increase in investment in machinery and equipment (at an average annual rate of above 20% since the first quarter of 2002). The average growth in this item during the last six months of 2006 is expected to be 17.6%; that is, 20.8% in machinery and equipment and 19.9% in transport equipment.

GDP growth in 2006 would be between 5.5% and 6.5%.

The force of investment could continue to boost imports of capital goods.

Unsurprisingly, the increased investment in machinery and equipment was accompanied by growth in imports of intermediate and capital goods (19.5% in dollars during the year to August) and a surge in certain manufacturing sectors. The forecast models show the momentum in imports of capital goods is likely to continue at the pace exhibited so far this year, which could be close to 20%.

As to exports, the models applied by the Bank indicate non-traditional exports would accelerate during the second half of 2006 at an annual rate between 7.5% and 9.5%. Traditional exports are expected to increase at a good pace, mainly because of better figures for coffee production (up by 9.0%, on average, in the second half of the year) and coal (16.8% real annual growth during the same period). In all, total exports are expected to grow by 6.7% during 2006.

Depending on supply, the non-tradable sectors should continue to account for most of the increase in GDP. In particular, for the mid-point of the 5.5% to 6.5% range, the construction sector might increase by nearly 12%, while commerce and transport would increase by more than 9.5% in 2006 (Table 10).

Table 10

Real Annual GDP Growth by Sectors
(percentage)

	2004	2005 [a/]	2006 [b/]
Agriculture and livestock, forestry, hunting and fishing	2.0	3.1	1.6
Mining and quarries	2.7	2.4	0.5
Electricity, gas and water	2.8	3.2	2.8
Industrial manufacturing	7.2	3.9	8.0
Construction	12.4	12.1	12.2
Buildings	29.4	3.6	11.1
Civil works	(10.0)	28.2	13.8
Commerce, repairs, restaurants and hotels	7.6	9.4	9.8
Transportation, storage and Communication	6.2	5.0	9.5
Financial establishments, insurance companies, real estate agencies and business services	4.8	3.6	0.7
Social, community and personal services	1.4	4.0	2.9
Financial brokerage measured indirectly	10.3	8.4	(8.4)
Subtotal: aggregate value	4.5	4.7	5.5
GDP	**4.9**	**5.2**	**6.0**
Taxes, minus subsidies	10.6	12.8	11.7
Net financial services -FBMI [c/]	3.1	2.0	3.8
Tradables [d/]	5.0	4.0	5.7
Non-tradables	4.8	6.0	6.2

a/ Preliminary.
b/ Mid-point projection in the 5.5% to 6.5% range.
c/ Financial brokerage services measured indirectly.
d/ Agriculture and livestock, mining, manufacturing, air and water transport services, including those of a complementary and auxiliary nature, and certain private services for businesses are regarded as tradable sectors.
Source: Dane. Calculations by Banco de la República.

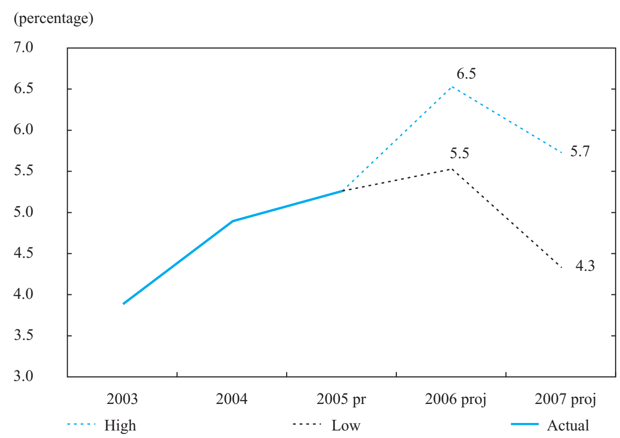
Industrial manufacturing would be the most dynamic of the tradable sectors, with 6.8% annual growth in the first half of the year and increases above 12% in July and August. This is according to the DANE monthly sample of manufactured goods. Growth in industrial manufacturing would be between 8% and 9% growth for the year.

Another possible bias in the direction of added growth is the chance of a better coffee crop, with an annual increase on the order of 15% (high scenario) during the second half of 2006 (above the 9% contemplated in the central scenario).

In short, the supply-side risks point to growth between 5.5% and 6.5% for 2006. As indicated, this prediction is higher than the one in the June report and implies acceleration with respect to the increase in 2005 (Graph 34).

Graph 34

Real Annual GDP Growth (%)



Pr: preliminary.
Proj: Projection.
Source: DANE.

2. GDP Forecast for 2007

The economic simulation exercises for 2007, which are done with a general equilibrium multi-sector model and depend largely on the central balance-of-payments scenario, show growth will continue at a good pace next year. Generally speaking, the anticipated shocks with respect to terms of trade, external demand and capital flow should not prevent the Colombian economy from growing by more than 4.0%.

As to terms of trade, it is assumed that coffee prices will drop by more than 10% (on average, for the year, with respect to those in 2006), the price of Colombian crude oil, -9% and the rest of the mining sector, -4.5% (including coal, ferronickel and gold production). The scenarios point to restrained world inflation at an annual rate of about 3.0%, and 3.2% to 3.4% real annual growth in the world economy and for our major trading partners. This is considerably less than the forecast for 2006 (4.5%).

Although a 2.1% decline in oil production is expected, production in terms of coffee and the rest of the mining sector should increase at respective rates of 0.5% and 5.8%. Workers' remittances, in dollars, would be up by about 6.0%, which is consistent with a soft landing for the United States economy and stable performance in the European Union. Finally, real growth in public spending is expected to be 4.0% and 15% for public investment.

According to the Bank's models, GDP growth in 2007 could range from 4.3% to 5.7%.

Based on these assumptions, we anticipate GDP growth in 2007 to be somewhere between 4.3% and 5.7%. This would imply restraint compared to 2006, largely because of less favorable external conditions (Graph 34).

The forecasts imply an active monetary policy adjusted to ensure that inflation targets are met.

C. INFLATION FORECAST

1. Forecasts

The inflation forecasts in this section were obtained with the transmission mechanisms model (TMM), using the assumptions discussed in the preceding sections with respect to external context, domestic growth, output gap and the balance of payments. No impact from the change in VAT, which would apply next year, was included for the current forecasts. The impact of previous changes in VAT on consumer prices has been varied, resulting in temporary increases in inflation. The effect El Niño might have on the price of perishable foods was not considered in the central scenario. However, according to meteorological agencies (including the Colombian Institute of Hydrology, Meteorology and Environmental Studies-IDEAM), a moderate climatic disturbance of this sort might be in the making and would affect the pattern of rainfall towards the end of 2006 and in early 2007.

As in the June report, the only major shock considered in the central path of the current forecasts was the increase in fuel prices and how it would affect public transportation fares. According to the price-fixing policy on fuel, further increases in the domestic price, above and beyond the targets for inflation, would be needed to place it on par with the international price expected in 2007, which is forecast in this report at around US$60 a barrel for WTI.

The principal results are shown in Table 10. As usual, the forecasts imply an active monetary policy. In other words, they assume interest rates will be adjusted to ensure that inflation targets are met in the long run.[11] The central forecasts assume the interest rate transmission channel will perform as it has in the past; that is, changes in the Bank's intervention rate would affect the market rates (for both lending and deposits) rather quickly.

Inflation for 2006 is expected to be within the target range (from 4.0% to 5.0%).

The central forecast shows that total inflation would be 4.6% at the end of the year. This is within the target range defined by the BRBD but above the forecast published in the June report (3.9%). The increase in the forecasts was concentrated in food and regulated goods and services, since earlier predictions for these sub-baskets were underestimated (Table 11). In the case of non-food inflation, which is the core inflation indicator in the TMM, the central forecast for the end of 2006 is 4%, which is at the bottom of the target range.

The remainder of 2006 is expected to witness no major changes in any of the CPI components. The sense is that tradable inflation (without food or regulated

[11] In the TMM, the changes in monetary policy stance are significant for inflation only beyond three quarters.

Table 11

Transmission Mechanisms Model (TMM)

	Total inflation	Food inflation	Non-food Inflation				Output Gap
			Total	Non-tradables	Tradables	Regulated	
Sep-06	4.5	5.9	3.9	4.2	2.5	5.9	0.6
Dec-06	4.6	5.8	4.1	4.3	2.5	6.3	0.9
Mar-07	4.8	5.8	4.4	4.5	2.5	7.3	1.1
Jun-07	4.7	5.6	4.4	4.6	2.2	7.6	1.2
Sep-07	3.9	4.1	3.9	4.9	1.7	5.9	1.0
Dec-07	3.7	4.0	3.7	4.8	1.2	6.3	0.8
Mar-08	4.1	4.4	4.0	4.8	1.7	7.0	0.6
Jun-08	4.0	4.0	3.9	4.7	1.9	6.6	0.3
Sep-08	3.8	3.8	3.8	4.6	2.1	5.3	0.1

Source: Banco de la República.

goods and services) has already absorbed much of the impact of second-quarter depreciation, and subsequent unwinding of the exchange rate, coupled with the stability anticipated for the next few months, should keep inflation in this sub-basket at the low levels registered in September. There are no substantial changes predicted for non-tradable inflation without food or regulated goods and services, except for a slight surge that could come from higher rents, due to the rapid growth in domestic demand (Table 10).

The first half of 2007 could see the appearance of upward tendencies that would take total inflation to 4.7% by June. Once again, the primary pressure would come from foods and regulated goods and services, but would be largely temporary. In the case of regulated goods and services, above and beyond fuel hikes and how they might affect transportation, there might be a moderate acceleration price hikes for electricity. These would make up for the extremely low increases in 2006. Also, for purely statistical effects, the pace of the annual adjustment in water rates should increase during first quarter of the year (Table 10).

Any rise in food prices at the start of 2007 would be associated mainly with the normal supply cycle for staples, although the appearance of some pressure due to high international oil prices and their impact on the cost of input and on external prices for imported or potentially exportable foods cannot be ruled out. El Niño weather would raise prices even more that foreseen in this report, but that would happen at the start of next year and be largely temporary. And, if El Niño proves to be moderate, the impact should be limited (See Box 2).

This forecast exceeds the one in the June report, because of the supply shocks associated with food and regulated goods and services.

The growth in total consumer inflation during the first half of the year would tend to reverse in the second half, once the shocks in food and regulated goods and services begin to disappear.

By in large, the increase in total consumer inflation during the first half of the year would tend to reverse in the second half, once the shocks in food and regulated goods and services begin to disappear. In the case of food, price increases above the inflation targets and actual total inflation would extend into mid-2007, raising the relative price of items in this group. During second half of 2007, high prices would be an incentive to supply, allowing for smaller increases and a reduction in both total and food inflation.

Even so, as predicted in several previous editions of this report, inflation in non-tradables (without food or regulated goods and services) would exert some limited upward pressure occasioned by the rapid growth in domestic demand. According to the TMM, annual inflation in non-tradables would move away from the Bank's long-range targets in the next three quarters, before beginning to converge again in the second half of 2007, given the monetary policy changes made since April 2006.

One important modification in the current forecast, as opposed to the June report, concerns the role of the exchange rate in tradable and total inflation. Although both reports anticipate relative exchange stability towards the mid-term, the starting point of the exchange rate listed in this report is less, due to appreciation in recent months. With this new forecast, the price of tradable goods and services (without food or regulated goods and services) would exert downward pressure from the start of 2007. Furthermore, it would continue longer than envisioned in the June report, helping to keep total and non-food inflation low beyond 2008.

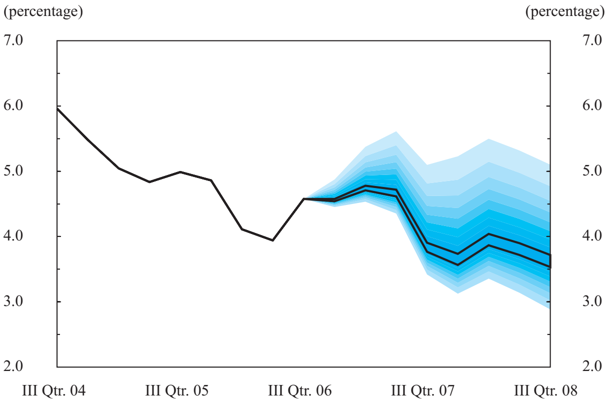
In short, although the forecasts published in this report for the next three quarters are higher than those in the June report, the increase was concentrated primarily with a revision of the supply shocks in food and regulated goods and services. The forecasts for the second half of 2007 anticipate a decline in consumer inflation to levels more in keeping with the targets. This would be the result of less pressure on prices for food and regulated goods and services, coupled with low tradable inflation, given anticipated stability in the exchange rate. Non-tradable inflation would move more slowly towards the long-term goals, to the extent that the effects of the monetary-policy decisions adopted since April of this year are passed on.

Non-tradable inflation would begin to converge towards the target in the second half of 2007, given the changes in monetary policy.

2. Risks

The fan chart (Graph 35) shows the central forecast for total inflation and the probability of its distribution, which is an indication of the uncertainty

Probability Distribution of the Inflation Forecast (Fan Chart)



Source: Calculations by Banco de la República.

Accumulated Probability of Actual Consumer Inflation within the Indicated Range

Inflation Rages (%)	Probability (%)					
	2007			2008		
	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.
Above 5.5	48.7	15.3	13.3	12.2	11.0	11.4
Below 5.5	51.3	84.7	86.7	87.8	89.0	88.6
Below 5.0	14.2	68.3	75.2	77.2	79.3	78.9
Below 4.5	0.1	44.3	58.7	61.7	64.9	64.7
Below 4.0	0.0	16.0	37.9	42.0	46.3	46.5
Below 3.5	0.0	0.9	15.0	19.9	25.0	25.9
Below 3.0	0.0	0.0	1.7	3.8	6.9	8.1

surrounding the central projection. On this occasion, the probability of distribution is up with respect to the June report. Under current economic conditions and those anticipated for the next six to eight quarters, there is more risk of inflation being above the central forecast than below.

The upward bias is particularly evident as of the second half of the year and is due, in part, to the major decline in inflation during that period, according to the central forecast. As noted in the previous section, that reduction is associated with the drop in food inflation. This justifies having a broad and upward-biased range of confidence, as the forecasts in recent quarters have systematically underestimated the current figures.

The following are the chief factors that could raise inflation with respect to the central forecast predicted by the TMM:

- *El Niño:* As indicated earlier, a moderate version of this climatic disturbance would occur in late 2006 and early 2007. For the most part, it is the intense episodes that have had major repercussions on the price of food and other consumer goods and services. Electricity is a prime example. However, according to the historic series and the Bank's models, a moderate episode also would have some effect on prices, at least temporarily.

- *The change in VAT:* So far, it is difficult to determine how consumer inflation might be affected. The outcome will depend largely on the number of items in the basket that are directly affected by the change.

El Niño and the change in VAT are the primary factors that could raise inflation with respect to the central forecast.

...Both factors have a temporary impact on inflation, provided they are not passed on to expectations.

As with *El Niño*, its direct impact is strictly temporary and would be manifest throughout the year in annual inflation. However, as with any temporary shock, the repercussions of a change in VAT can be permanent if it raises inflationary expectations.

- *Probability of further economic growth:* In this report, the estimate for total growth in 2006 is between 5.5% and 6.5%. The figure for 2007 is less, but favorable all the same. However, a number of sector indicators for production and consumption point to the risk of growth in the upper part of those ranges. If that happens, the pressure on prices as a result of demand might exceed the pressure contemplated in the central forecast.

- *Wage hikes:* Recent months have seen wage increases at around 18% in certain segments of the labor market. Up to now, such hikes would have been limited to the modern sectors of the economy (industry and commerce) and would have been offset by productivity gains. Nevertheless, if wage increases well above the long-term targets extend into sectors where the productivity gains are less clear, or are not maintained, pressure on prices could emerge.

The following are the main factors that would explain an inflation forecast below the one in the central scenario.

- *Exchange rate appreciation:* The assumption in the central scenario is that the exchange rate will remain stable. Nevertheless, it would appreciate if expectations of fewer interest rate hikes in the United States and other developed economies are borne out, if exports maintain their momentum, and if the flow of capital to the emerging economies increases. With a lower exchange rate, tradable inflation would be less than the forecast in this report.

- *Lower fuel prices:* The principal scenario is one where the international price of oil would cease to decline and would increase slightly towards the mid-term. Given these levels, the rise in domestic fuel prices would exceed the targets and would explain the higher rate of inflation in regulated goods and services during 2007. Nonetheless, if external prices keep falling, pressure on domestic prices would be less and inflation in regulated goods and services might also be lower.

The exchange rate would appreciate if expectations of lower interest rate hikes are borne out, if exports maintain their momentum, and if the flow of capital to emerging economies increases.

- *The negative shock if ATPDEA is not extended:* The present report anticipates no major shock to the external sector. However, there is the risk that tariff preferences (ATPDEA) for Colombian exports to the United States might not be extended for 2007. Growth in some tradable sectors would be affected as a result. This, in turn, would likely reduce economic growth and the pressure on inflation.

- *Effects of globalization:* Globalization might have been important to controlling inflation in recent years by exposing domestic companies to international competition and by lowering the price of raw materials and imported end products. There is a wealth of evidence to this effect at the international level (See Box 3). Globalization might continue to curb some of the upward pressure on prices, which is not contemplated in the central forecast of this report.

The likelihood of inflation being under 4.5% at the end of 2007 is relatively high.

El Niño and Its Possible Impact on Colombia

Edgar Caicedo G.*

Meteorological authorities in Colombia; namely, the Colombian Institute of Hydrology, Meteorology and Environmental Studies (IDEAM), and in other counties recently warned about the presence of a moderate El Niño event in Colombia. This climatic disturbance appears to have begun in August 2006 and probably will last until mid-2007. According to IDEAM, it could reduce the amount of rainfall by 30% to 50% on the Caribbean coast and by 20% to 30% in the Andean highlands. On the other hand, it could mean more rain for southern Colombia and the Eastern Plains. According to meteorological authorities, some decline in rainfall was detected in the interior of the country during September and early October, but not on the Caribbean coast.

I. What is El Niño and how often does it occur?[1]

El Niño is a marine and atmospheric event that involves an abnormal warming of the ocean surface in the central and eastern tropical Pacific Ocean, off the coast of northern Peru, Ecuador and southern Colombia. Depending on its intensity, El Niño can affect the climate worldwide.[2] For the most part, this surface warming of the Pacific Ocean is recurrent, although not periodic, and happens every two to seven years. Occasionally, it begins and then reverses. In the case of Colombia, more often than not, the rainy periods tend to become more moderate and the dry periods, more pronounced. When it occurs, El Niño lasts for 12 months, on average, although shorter events (seven months) and longer ones (28 months) are on record. Graph B2.1 shows the episodes of El Niño that had an impact on Colombia.

II. The General Effects of El Niño

Detrimental consequences have been identified at different levels. From the standpoint of inflation, the most important one is El Niño's impact on the supply of farm products, which is reduced because of less rain, and on food prices,

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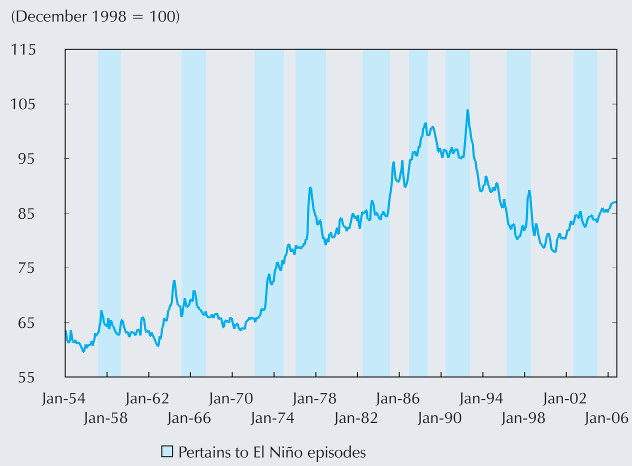
* The author is an expert on inflation and works with the Inflation Section of the Programming and Inflation Department. The opinions expressed in this article his alone and imply no commitment on the part of Banco de la República or its Board of Directors.

1 This article is based on IDEAM (2002), IDEAM (2006) and http://www.pmel.noaa.gov/tao/elnino/el-nino-story.html.

2 The opposite event is known as La Niña.

Graph B2.1
Relative Food Prices Deflated by Total Non-food CPI



Source: DANE and IDEAM.

which rise temporarily. Depending on the intensity of the event, it also can jeopardize marine fishing (smaller catches), shipping (10% to 25% less cargo volume transported by river), the hydroelectric sector (lower levels in reservoirs and dams) and human health (increase in tropical diseases).

III. Effects on Production and the Price of Farm Products

The principal effects of El Niño are felt by the agricultural sector. Variations in harvests depend largely on technological and economic factors, but also on natural phenomena, particularly those of climatic origin. The decline in precipitation as a result of El Niño is a case in point: studies confirm the tendency to reduce agricultural production. According to calculations by the Ministry of Agriculture, El Niño can reduce agricultural output by nearly 5%. For permanent crops, the impact is slightly higher (5.5%) than for temporary ones (4.4%). When the episode lasts two calendar years, the negative impact on farm production has proven to greater during the second year. [3]

Historically speaking, the crops most affected are sisal, cassava, African palm, barley, rice and potatoes (Graph B2.2). In the case of milk, historically its production has dropped by 4.9%, on average, with each episode of this nature. In the case of coffee, the effect has been less significant.[4]

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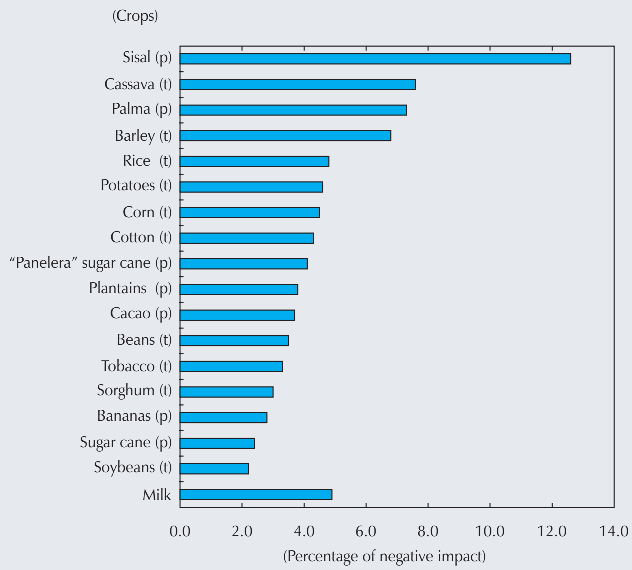
3 Agriculture Ministry (2006).

Graph B2.2
Index of the Probable Effect of El Niño on Agricultural Yields in Colombia: 1970-1996



(t) Temporary **(p)** Permanent
Sources: DANE and IDEAM.

As to prices, a look at the historical series shows El Niño can raise the price of farm products and food substantially, especially in the case of perishables. Graph B2.1 illustrates how the presence of this phenomenon in the last fifty years coincides with increases in the relative price of foods, measured according to the CPI.

Table B2.1 summarizes the pattern of consumer inflation during the same period, differentiating the years when El Niño occurred from those when it did not. Between 1960 and 2005, average inflation in the years without El Niño episodes was 15%, as opposed to 19.5% in years with these episodes. Moreover, the annual variation in food prices was less in years free of El Niño (15%) than in years when this climatic disturbance occurred (21%).[5] The average annual variation in the relative price of foods was nil when this event was excluded and 1.0 pp when it was included. On average, food accounts for 30.6% of inflation in years with El Niño, as opposed to 27.5% in years without a climatic event of this type. When El Niño occurs, total inflation tends to be concentrated far more in the first six months of the year.[6]

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4 According to Cenicafé (2006), the fact that the El Niño episode expected at the end of this year and the beginning of 2007 would coincide with the period of less rainfall in the coffee region might even be favorable to the bloom of next year's coffee crop. Cenicafe recommends no new planting be done during that period.

5 Non-food inflation also increases by nearly 5 pp with episodes of El Niño, because agricultural input for industry becomes more expensive, as does electricity.

6 See Banco de la República (2004).

Table B2.1
Consumer Prices during El Niño Episodes

	Inflation				Share of Food Inflaction
	Total	Food	Non-food	Relative Price of Food	
Averages					
Total (1955-2005)	16.6	17.3	16.4	0.5	28.9
Without El Niño	14.9	15.1	14.9	0.1	27.5
With El Niño	19.5	20.8	19.0	1.0	30.6

Source: DANE. Calculations by Banco de la República.

The impact of El Niño on total consumer inflation has declined over time, partially due to changes in the structure of household consumption, especially the fact that food now accounts for a smaller share of that consumption. For the most part, its effect on prices is usually temporary. On various occasions, less supply and higher prices were followed by a sharp increase in production. This is particularly true of perishables and results in lower prices and rates of inflation.

IV. What can be expected of El Niño in 2006 and 2007?

The current episode is expected to have only a limited impact on consumer prices. To begin with, the food group carries less weight than in the past. Secondly, there is a 60% chance of this episode being moderate, with limited economic impact. There is a 10% likelihood of a serious episode and 30% likelihood of a weak one. Finally, there is every indication that its inflationary impact on food is temporary. For the most part, it would be concentrated in the first half of 2007, and would disappear in the latter half. As to the possible impact on electrical power generation, there is expected to be no or little difference from what occurred during past episodes.[7]

Although IDEAM has confirmed the presence of El Niño, it will not necessarily gain strength or last until the second quarter of 2007. On several previous occasions, the process stopped midway through. Therefore, its impact on prices and its duration remain highly uncertain.

[7] This was the case in September 1991, when the reservoirs were 57% full at the onset of El Niño. By March 1992, they were down to just 17%. However, the reservoirs are now 80% full and the country has far more thermal energy generating facilities. For more information, see the web site of the Ministry of Mines and Energy: www.minminas.gov.co.

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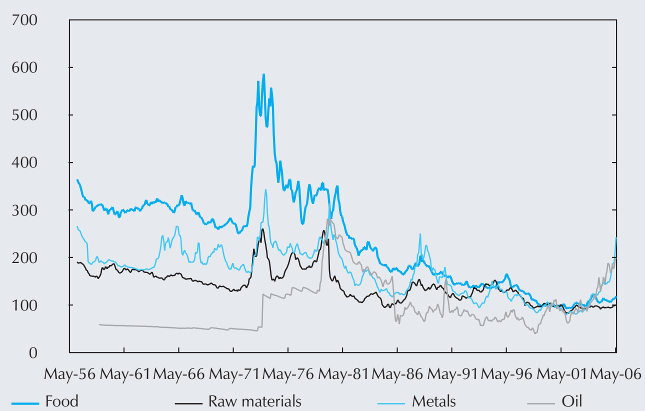
What Has Happened to International Commodity Prices?

Luz Adriana Flórez*

I. Introduction

International commodity prices have increased sharply in the last four years. The real price of energy rose 95% and metals, 78% between 2002 and 2005 (Graph B3.1).[1] However, in September, nominal prices dropped sharply, particularly in the case of oil (12.4%), natural gas (31%), gasoline (21.4%) and other commodities such as gold (5.2%). Although this unwinding is attributed to certain shocks (e.g. a milder hurricane season, an increase in the reserves of several developed economies, among other factors), there are doubts about whether this marks the start of a new long-term tendency. The present article looks briefly at the stylized events found in literature to understand the behavior of commodity prices now and in the future.

Graph B3.1
Commodity Prices, without Energy



Source: IMF. Calculations by Banco de la República.

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* The author works with the Inflation Section of the Programming and Inflation Department. The opinions expressed in this article are hers alone and imply no commitment on the part of Banco de la República or its Board of Directors. The comments by Luis Eduardo Arango are gratefully acknowledged.

1 A comparison between the figures at May 2006 and those in 2002 show respective growth rates of 126% and 143%. These estimates are based statistics published by the International Monetary Fund, which are available only up to May 2006.

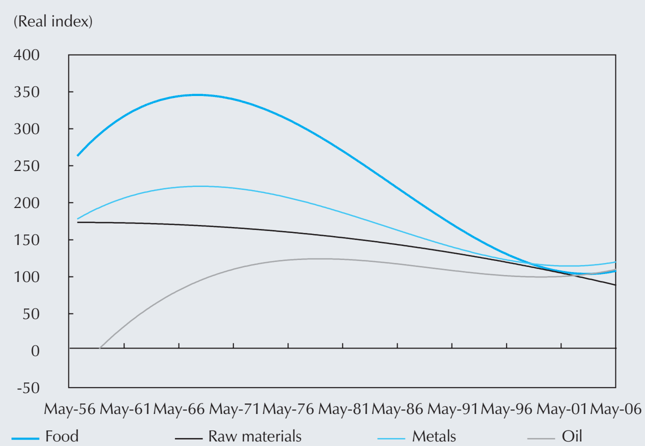
II. Stylized Events

Literature on commodities is concentrated on analyzing long-term tendencies, variability, persistence, non-linearity in cycles, and how it relates to world economic growth.

A. Long-term Tendencies

Although commodity prices have increased in recent years, their long-term tendency has been just the opposite. An analysis as of 1957 shows a downward tendency,[2] particularly from the highs observed in the seventies. In the case of metals and oil, their tendential component has increased in recent years, but not beyond the level registered in the seventies. As to raw materials and food, their prices continued to decline (Graph B3.2).

Graph B3.2
Long-term Component of Commodity Prices



Source: IMF. Calculations by Banco de la República.

Having studied the long-term behavior of commodity prices, Cashim and McDermott (2002) also found an almost 1% real decline in this tendency, per year, over the last 140 years, with little evidence of a structural break. These findings and the seasonality of the series would enable us to validate the hypothesis put forth by Prebisch and Singer (1950).[3] Their suggestion is that more competition

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2 The long-term component was calculated with second and third degree polynominals, depending on the case. In other words, the following estimate was done for the price of each item: $p_1 = c + dt^2 + dt^3$, where p1 is the price of each commodity and dt is the time or tendency variable.

3 According to these authors, terms of trade declined historically, given the differences between growth in demand and the production structure for the raw materials market and market for manufactured goods (quoted in Wayne, 1990).

in the commodities market, compared to others, allows for a long-term decline in prices.

B. *Volatility*

Prices also have become less volatile. In the case of food, the deviation during the last decade has declined from its high point, which occurred in the seventies. The same is true of raw materials. In the case of metals and oil, the last five years saw a moderate rise in volatility, although it appears to be more uniform throughout the sample (Table B3.1). These results are similar to what the IMF found (*World Economic Outlook,* 2006). According to its report, the high degree of diversification in food crops and the use of more advance technology in these sectors have made it possible to reduce variations in price.[4]

Table B3.1
Standard Deviation
(2000 real index = 100)

	Foods	Raw Materials	Metals	Oil
1957-1970	19.5	14.1	24.7	2.9
1971-1980	84.7	35.1	34.8	66.6
1981-1990	33.3	15.3	29.2	51.6
1991-2000	18.8	15.9	16.2	15.3
2001-2006	7.7	4.4	36.5	38.5
1957-2006	**102.4**	**35.4**	**50.9**	**52.7**

Source: IMF. Calculations by Banco de la República.

C. *Persistence* [5]

Using advanced techniques, Cashin *et al*. (2000) found strong evidence of persistence in all commodity prices. Considering their analysis is annual, these authors found that: "[…] most individual commodities require more than five years for half the initial price shock to disappear" (pg. 182). To verify these findings, a first order autoregressive model was used for each group. In all the exercises, the coefficient was significant and close to 1, showing high persistence.[6]

[4] Cashin and McDermott (2002) found an increase in price volatility as of 1971. However, these results were obtained by analyzing an aggregate index (*Index of Industrial Commodity Prices*, calculated by *The Economist*).

[5] In this case, persistence is understood as the memory a variable has of its own history.

D. *Non-linearity and Relation to the Economic Cycle*

Besides high price persistence, Cashin *et al.* confirmed the existence of non-linearities[7] in price cycles, and even found that recession periods are more prolonged than growth periods.

A high correlation between the commodities cycle and world growth is found in literature. Studies by the International Monetary Fund (2006), Normand (2006) and others emphasize this point. To validate these results, the industrial production series for the major developed economies was used as a proxy for world growth and the following was found: historically, there is an important connection between economic cycles and raw materials and metals: the correlation with foods is much less. As to oil prices, a significant relationship was found only as of the nineties (Table B3.2).

Table B3.2
Correlation Coefficient between Industrial Production in Developed Countries and Commodity Prices
(Annual variations)

	Food	Raw Materials	Metals	Oil
1958-1970	0.32	0.63	0.56	0.10
1971-1980	0.53	0.77	0.44	(0.13)
1981-1990	0.48	0.49	0.49	0.17
1991-2000	(0.01)	0.13	0.63	0.48
2001-2006	0.52	0.71	0.78	0.76
1958-2006	**0.36**	**0.52**	**0.42**	**0.04**

Source: IMF. Calculations by Banco de la República.

It is important to point out that the correlation of all prices to the cycle increased dramatically in the last five years. Some analysts (IMF, 2006; Normand, 2006) argue that China's entry, along with other emerging economies, has propelled this momentum. Our calculations show the correlation between China's economic growth and commodity prices[8] in the last five years was 0.92% in the case of raw materials, 0.77% for metals and 0.86% for oil. These correlations far exceed those in the foregoing table (Table B3.3).

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6 Using additional lags, it was found that persistence is greater in the case of foods and raw materials, although in any case the minimum is six lags.

7 Deaton and Laroque (1992), Cashin, et al. (1999), among others.

8 This exercise was done with annual figures as of 1979. Although the series is quite short, it demonstrates important evidence of China's impact on the increase in commodity prices during the last four years.

Table B3.3
Correlation Coefficient between China's Growth and Commodity Prices
(Annual variations)

	Food	Raw Materials	Metals	Oil
1979-1990	0.2	0.2	0.2	(0.3)
1991-2000	0.4	0.6	(0.0)	(0.3)
2001-2006	0.6	0.9	0.8	0.8
1979-2006	**0.2**	**0.3**	**0.2**	**(0.2)**

SSource: IMF. Calculations by Banco de la República.

E. Other More Recent Events

In addition to the huge demand for commodities on the part of China and other emerging economies, there also has been a sharp increase in speculative investments in goods of this type (hedge funds, pension funds and individual investors). Analysts have called attention to the behavior of these investment funds, which flock to investments, particularly in energy commodities, in search of higher returns. With the drop in oil and gas prices during recent weeks, some of these funds have begun to show losses.

III. Mid-term Expectations

The high persistence and low volatility in commodity prices suggest gradual movement in the future. In addition to the high correlation between international prices and economic cycles, this would appear to indicate the current decline in prices for certain commodities will not be a long-term event, as world demand is expected to remain strong in the years ahead.

However, some analysts have begun to call attention to the impact the slowdown in the U.S. economy might have on world economic growth and, ultimately, on commodities. This effect is regarded as moderate. On the contrary, the increased momentum of emerging economies such as China and India, in addition to that of developed economies such as Europe and Japan, could compensate for less demand from the United States.

In conclusion, even though the behavior of some investment funds and the possible diversification of their portfolios could ease some of the pressure on commodity prices, the impact probably would be moderate and the persistence of strong world demand would continue to keep prices favorable. In this sense, most analysts do not expect to see commodity prices drop sharply during the next two years (The Economist Intelligence Unit, 2006).

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Macroeconomic Projections by Domestic and Foreign Analysts

The following are the latest projections by domestic and foreign analysts with regard to the main variables of the Colombian economy in 2006 and 2007. When consulted, the analysts had access to data available up to September 2006.

I. Projections for 2006

The forecasts for 2006 are shown in Table A1. On average, the domestic analysts expect 5.6% economic growth, which is 81 bp more than last quarter's forecast. The foreign analysts anticipate 5.4% (72 bp more). Apparently, expectations continue to improve, probably because of good industrial performance, which averaged an increase of 8.8% in the first eight months of the year and continues to surprise even the most optimistic analysts. The solid growth in credit and the fact that Fedesarrollo's consumer confidence index remains near its historic high also could be a determining factor and foretells good growth in private consumption.

Table A1
Projections for 2006

	Real GDP Growth (percentage)	CPI Inflation (percentage)	Nominal exchange rate (end of)	Nominal TDR (percentage)	Fiscal Deficit (percentage of GDP)	Unemployment Rate (% for 13 cities)
Domestic Analysts						
Corredores Asociados	5.5	4.8	2,300	7.0	n.a.	n.a.
BBVA Ganadero	5.9	4.5	2,275	n.a.	n.a.	11.9
Bancolombia-Suvalor	5.1	4.5	2,387	6.9	0.8	n.a.
Corficolombiana-Corfivalle	5.9	4.5	2,447	6.6	n.a.	n.a.
Banco de Bogotá	5.5	4.9	2,350	6.5	1.5	n.a.
Fedesarrollo	5.6	4.5	2,450	6.6	1.5	11.8
Average	**5.6**	**4.6**	**2,368**	**6.7**	**1.3**	**11.9**
Foreign Analysts						
CS First Boston	5.3	4.5	2,440	n.a.	3.0	n.a.
Bear Stearns	5.9	4.6	2,278	n.a.	n.a.	n.a.
J.P. Morgan Chase	5.4	4.3	2,400	n.a.	1.0	n.a.
Goldman Sachs	5.3	4.8	2,500	7.0	1.0	n.a.
Deutsche Bank	5.2	4.4	2,440	6.9	1.0	n.a.
Average	**5.4**	**4.5**	**2,412**	**6.9**	**1.5**	**n.a.**

n.a. Not available
Source: Banco de la República, based on information from the analysts.

As to inflation, the domestic analysts raised their forecast for 2006 by 28 bp to 4.6%; the foreign analysts increased theirs by 20 bp to 4.5%. Inasmuch as annual inflation at October 2006 was 4.18%, these forecasts seem to confirm that no one anticipated last month's decline. As was the case during the past eight quarters, all the analysts believe the inflation target will be met (between 4% and 5% for 2006).

With respect to the exchange rate, the domestic analysts, on average lowered their forecasts by Col$166 (to Col$2,368); the foreign analysis reduced theirs by Col$12 (to Col$2,412). In other words, on average, the domestic analysts expect foreign exchange to depreciate by 3.5% and the foreign analysts, by 5.3%, compared to the price at the end of 2005 (overall, the maximum expected depreciation is 8.6% and the minimum is -0.4%). Unlike the second quarter and in line with the situation during the last six quarters, the forecasts have been revised downward. This change probably was influenced by the sharp drop in the exchange rate during the quarter, which offset the entire second-quarter increase in foreign exchange. At the same time, there was a decline in risk aversion on world markets and expectations, for the most part, are that the Fed's next move would be to lower the intervention rate.

On average, the analysts anticipate interest on term deposits (DTF in Spanish) to be 6.7% by the end of the year. The consolidated fiscal deficit is expected to be around 1.4%. This is 20 bp more than last quarter (and similar to what was anticipated two quarters back). It also is slightly less than the CONFIS projection (2% for the consolidated public sector). The forecast for unemployment in 13 cities was raised by 80 bp, on average, to 11.9%, which could suggest that analysts expect the recent increases in DANE's measurements to be maintained in the future.

II. Projections for 2007

The domestic analysts expect 4.8% growth in 2007; the foreign analysts, 4.6% (Table A2). For inflation, both the domestic and foreign analysts predict 4.3%, which is near the top of the target range set by the BRBD for 2007 (3% to 4.5%). The forecast in the next measurement might be lower, thanks to current figures on inflation and the Bank's recent rate hikes.

As to the exchange rate, annual devaluation, on average, is expected to be 4.6% compared to the forecasts for the end of 2006. This means the representative market rate (TRM in Spanish) would be Col$2,500 by the end of 2007, which is akin to what it was in July 2006 and July 2002.

Compared to late 2005, these forecasts imply 9.5% accumulated peso devaluation between 2006 and 2007. On average, 48% of this devaluation is expected to occur in 2006 and 52% in 2007. Last quarter, it was predicted that 76% would occur this year.

Table A2
Projections for 2007

	Real GDP Growth (percentage)	CPI Inflation (percentage)	Nominal Exchange Rate (end of)
Domestic Analysts			
Corredores Asociados	5.0	4.9	2,450
BBVA Ganadero	4.4	3.7	n.a.
Bancolombia-Suvalor	4.5	4.2	2,339
Corficolombiana-Corfivalle	5.0	4.5	2,687
Banco de Bogotá	4.4	4.7	2,420
Fedesarrollo	5.2	4.0	2,500
Average	**4.8**	**4.3**	**2,479**
Foreign Analysts			
CS First Boston	4.8	4.5	2,530
Bear Stearns	5.0	4.0	n.a.
J.P. Morgan Chase	4.5	4.9	2,475
Goldman Sachs	4.0	4.3	2,540
Deutsche Bank	4.6	4.0	2,540
Average	**4.6**	**4.3**	**2,521**

n.a. Not available.
Source: Banco de la República, based on information from these analysts.

Monetary Policy Decisions in the Last Three Months

Monetary Policy Decisions in the Last Three Months

Background Information: The June 2006 *Inflation Report*

During the second quarter, the most important change in the external context was the added expectation of interest rate hikes by the Fed and by other developed economies. This prompted a portfolio shift towards investments in foreign exchange and implied considerable movement of the exchange rate in the regional economies. These factors also sparked an escalation in interest rates on domestic government bonds and in country-risk premiums on the sovereign debt. These variations were particularly important in Colombia. The exchange rate was Col$2,633 per dollar at the end of June, which is equivalent to 15.4% depreciation so far this year. The increases in the exchange rate activated automatic auctions of call options on six occasions to control volatility. The result was US$944.3 m in sales of foreign exchange (Table A).

Although it was to be expected that less international liquidity would cause the peso to depreciate, an assessment of the external context showed no deterioration in the foundations of the Colombian economy that would explain a larger adjustment than the one experienced by other economies in the region. For this reason and based on the balance-of-payments forecasts, the assumption in central

Table A
Foreign Exchange Purchase-Sale Options, Banco de la República
(Millions of dollars)

	2005	2006					
		I Qtr.	II Qtr.	Jul.	Aug.	Sep.	Accumulated: Jan-sep
Purchases	4,658.4	1,196.7	0.0	180.0	213.8	0.0	1,590.5
Put Options	0.0	0.0	0.0	180.0	213.8	0.0	393.8
To accumulate international reserves	0.0	0.0	0.0	0.0	0.0	0.0	0.0
For volatility control	0.0	0.0	0.0	180.0	213.8	0.0	393.8
Discretionary Intervention	4,658.4	1,196.7	0.0	0.0	0.0	0.0	1,196.7
Sales	3,250.0	1,000.0	944.3	0.0	0.0	0.0	1,944.3
Call Options	0.0	0.0	944.3	0.0	0.0	0.0	944.3
For volatility control	0.0	0.0	944.3	0.0	0.0	0.0	944.3
National Government	3,250.0	1,000.0	0.0	0.0	0.0	0.0	1,000.0
Net Purchases	1,408.4	196.7	(944.3)	180.0	213.8	0.0	(353.8)

Source: Banco de la República.

macroeconomic forecast of the June report is that the exchange rate would undergo a partial reversion with respect to the levels observed during those months.

Consideration of the possible negative portfolio effects associated with the devaluation in TES and stocks caused no fundamental change the forecasts for growth of the Colombian economy in 2006. Existing indicators and expectations surveys are testimony to this fact. They showed that that household and business confidence remained high. Furthermore, external demand and terms of trade continued to favor an increase in exports and national revenue. Under these conditions, the economy maintained its growth momentum, backed by domestic demand, which was up by an annual rate of 8%, particularly because of the acceleration in household consumption and the high rate of investment. The acceleration in loan growth, especially as of mid-year, probably expanded the impact the existing monetary stimulus had on aggregate demand. Part of this expansion was associated with the shift in bank assets towards loans and away from investments, particularly in TES because of heightened market risk. For this reason, the rise in extended loans was accompanied by a decline in lending rates (in real and nominal terms).

Given these circumstances, the reasons noted in the March *Inflation Report* for gradually reducing the monetary stimulus and making it compatible with the goal of long-term price stability would continue to be valid. Based on this analysis, the Board of Directors raised the intervention rates from 6.25% to 6.50% in June, but did not change them at its meeting in July. The result is a total increase of 50 bp so far this year.

Monetary Policy Decisions in the Third Quarter of 2006

The figures published by DANE in September on GDP growth in the second quarter surpassed all expectations and raised the growth forecasts for 2006. The figures showed the economy continued to expand, backed by a strong increase in domestic demand, owing to household consumption and investment growth.

Furthermore, the possibility of lower interest rate hikes in the United States, due to more moderate growth and better inflation indicators, led to revaluation of a number of local assets and a drop in exchange rates and TES interest rates. By the end of September, the exchange rate had pulled back to Col$2,394 per dollar, having averaged Col$2,526 in June and July. The dollar's performance probably also was associated with news of more direct foreign investment (DFI) in Colombia. These conditions, coupled with favorable developments in exports and terms of trade, plus the sharp increase demand, forecast continued robust economic growth during the remainder of the year and thereafter.

This being the case, one would expect the economy's surplus productive capacity to continue to decline. However, the pattern of this variable was highly uncertain.

For example, while a range of indicators (mainly for industry) showed substantial reductions in surplus capacity, others such as non-tradable inflation (without food or regulated goods and services) would suggest more surplus productive capacity and/or significant productivity gains. As a matter of fact, acceleration in the growth of productivity in the Colombian economy was likely, considering the high rate of investment in machinery and equipment in recent years and the possibility of added pressure from competition. However, some of the improvement in production is temporary, insofar as it reflects cyclical variations in economic activity.

Furthermore, the monetary policy stance during the quarter continued to contribute to the increase in economic activity, since real interest rates in the financial system, on deposits and lending, remained low with respect to their historic averages and long-term levels. At the same time, there was a considerable increase in lending and, by September, annual growth in the loan portfolio was 29.9%. The escalation in consumer loans (47.7%) was a high point in this respect. A more vigorous credit channel meant the broad prevailing stance of monetary policy not only stimulated the growth in aggregate demand, through the interest rate, but this effect was amplified by the availability of credit in the market.

Only part of the Bank's intervention rate hikes was passed on to other rates in the economy, despite the momentum in loans. For example, although the Bank's intervention interest rate and the TIB have experienced a real increase of about 100 bp so far this year (to the end of September), the DTF (at ninety days) is up by 37 bp and the average lending rate calculated by the Bank is now 14 bp higher. This is explained partly by the fact that financial institutions shifted some of their holdings from TES and other investments to loans, which give them an important source of funds for credit. Another factor that contributed to the increase, as of the second quarter, was the supply of deposits from households and companies that reduced their positions in stocks and particularly in domestic government bonds. The acceleration in annual M3 growth and in LSR (liabilities subject to reserve requirements) during the third quarter reflects these adjustments, although early September saw the beginnings of a major revision in this tendency.

The third quarter witnessed more inflationary expectations, probably because consumer inflation went from 3.9% in June to 4.6% in September. This increase in inflation is explained by supply factors manifest in food and regulated goods and services, and, to a lesser degree, by the impact of peso depreciation on tradable inflation during the second quarter. The BRBD took into account the possibility of additional inflationary pressures in the coming months and at the beginning of 2007, due to El Niño weather, higher prices for regulated goods and services, and possible changes in VAT. In principle, these factors have a temporary effect on inflation. Even so, the monetary authority must do what it can to prevent them from resulting in higher expectations of inflation.

The price of raw materials fueled the increase in costs for companies during the third quarter, partially because of the temporary rise in the exchange rate. However, it is recognized that these cost pressures could become more evident in the future, if the momentum in aggregate demand continues. As a matter of fact, the business surveys show the cost of raw materials is expected to increase. On the other hand, because of productivity gains, unit labor costs did not increase. Yet, some of these gains might be temporary, as mentioned earlier.

In short, the macroeconomic assessment showed the economy grew more than expected, the increase in domestic demand remained strong, real interest rates stayed low, and the credit channel intensified. The growth in monetary aggregates accelerated and the impact of intervention interest rate hikes has been limited, as least up to now. This set of factors, coupled with the increase in inflationary expectations and the possibility they will remain high for the next two or three quarters, in view of declining inflation targets in the future, suggests the monetary stimulus to the economy must continue to be reduced to consolidate healthy growth, while inflation continues to decline towards its long-term target in the 2% to 4% range.

Given this context, the BRBD raised intervention rates by 25 bp at each of its meetings in August, September and October, placing the interest rate on expansion auctions at 7 %(Table B).

Table B
Changes in Banco de la Republica's Intervention Rates
(Percentage)

Date [a]		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
	Feb. 23	5.00	6.00	7.00	10.75
2004	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
2006	May 2	n.a.	n.a.	6.25	10.00
	Jun. 21	n.a.	n.a.	6.50	7.50
	Aug. 22	n.a.	n.a.	6.75	7.75
	Oct. 2	n.a.	n.a.	7.00	8.00
	Oct. 30	n.a.	n.a.	7.25	8.25

n.a. Not applicable. The Bank suspended all monetary contraction operations (auction and Lombard) as of December 22, 2004.
a/ The working day immediately after the decision by the BDBG.
Source: Banco de la República,