Inflation
Report

September 2007

Banco de la República
Central Bank of Colombia
Bogotá. D,C,. Colombia

ISSN - 1657 - 7973

The Inflation Targeting Strategy in Colombia

Objectives

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

Horizon and Implementation

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

The Decision-making Process

Monetary policy decisions are based on an analysis of the current state of the economy and its prospects for the future and on an assessment of the forecast for inflation compared to the targets. If the assessment suggests, with enough certainty, that inflation will deviate from its target under current monetary-policy conditions, and that the deviation would not be due to temporary shocks, the BDBR modifies its policy stance. This is done primarily by changing the intervention interest rate (charged by Banco de la República on short-term liquidity operations).

Communication and Transparency

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

Contents

Graphs and Tables 6

Assessment of Inflation and Policy Decisions 9

I. Recent Developments in Inflation 15

A. Recent Inflation Trends 15

B. Factors that Determine Inflation 20

Box 1: Exports to Colombia's Two Major Trading Partners: 2005-2007 30

II. Financial Markets 37

A. International Context 37

B. Financial Markets 39

III. Macroeconomic Prospects 47

A. The International Context 47

B. 2007 Balance of Payments 51

C. Local Growth 52

D. Inflation Forecasts 55

Box 2: Description of Economic Cycles: The Colombian Case 61

Attachment: Macroeconomic Forecasts by Local and Foreign Analysts 65

Graphs and Tables

I. Recent Developments in Inflation

Graph 1	Annual Consumer Inflation and Targets	16
Graph 2	Annual Variation in Core Inflation Indicators	17
Graph 3	Tradable and Non-tradable CPI, Excluding Food and Regulated Prices	18
Graph 4	Regulated CPI	19
Graph 5	Food CPI	19
Graph 6	Food Inflation: A Breakdown	19
Graph 7	Real Annual GDP Growth	20
Graph 8	Real Annual Growth in GDP and Local Demand, and the Balance of Payments as a Percentage of GDP	21
Graph 9	Total Traditional and Non-traditional Exports in Dollars (Annual Growth in the Last 12 Months)	22
Graph 10	Annual Tradable and Non-tradable GDP Growth	23
Graph 11	Demand Expected in the Next Twelve Months Compared to Installed Capacity	24
Graph 12	Output Gap	25
Graph 13	Heavy Construction Wage Index	25
	Nominal Wage Costs in Industry and Commerce	25
Graph 14	Employment in Industry and Commerce	27
Graph 15	Total PPI	28
	PPI by Components	28
Graph 16	Inflation Expected at Three, Six, Nine and Twelve Months	28
Graph 17	TES-Derived Inflation, Monthly Average	29
Table 1	Inflation Breakdown Showing Upward Pressures	16
Table 2	Actual and Forecast Inflation for September 2007	17
Table 3	Real Annual GDP Growth by Type of Expenditure and Contribution to Growth	21
Table 4	Real Annual Sector Growth in GDP	24
Table 5	Percentage of Beneficiaries per Annual Wage Increase Negotiated for 2007	26

Table 6	Labor Market Indicators	26
Table 7	Social Security Indicators in the National Total	27

II. Financial Markets

Graph 18	Monetary Policy Rate in the United States, Euro Zone and Japan	38
Graph 19	Stock Market Indexes	38
Graph 20	Risk Aversion Indexes (VIX) and Embi+ Colombia	38
	Embi+ and High Yield Spread	38
Graph 21	Nominal Dollar Exchange Rate of Several Latin American Currencies	39
Graph 22	Annual Growth in Monetary Aggregates	39
Graph 23	Average Monthly Amount in Certificates of Deposit	40
Graph 24	Annual Growth in the Total Loan Portfolio	41
Graph 25	Gross Loan Portfolio: Monthly Variations and Moving Average	41
Graph 26	Loan Portfolio/GDP (Quarterly)	43
Graph 27	Time Deposit Certificates: Monthly Office and Corporate Client Share	44
	Total Monthly TCD Rate: Office and Corporate Clients	44
Graph 28	Real DTF Interest Rate (Non-food CPI)	45
	Real Lending Rate (Non-food CPI)	45
Graph 29	Real Interest Rates	46
Table 8	Nominal Interest Rates	45

III. The Macroeconomic Outlook

Graph 30	Price of Oil (WTI) on the New York Stock Exchange	50
Graph 31	Total Commodity Price Index without Oil (WCF)	50
Graph 32	Real Annual GDP Growth	52
Graph 33	Household Consumption and the Fedesarrollo Consumer Survey	53
Graph 34	Capital Goods Imports (Last Three Months)	54
Graph 35	Probability Distribution of the Inflation Forecast (Fan Chart)	60
Table 9	Growth Forecasts for Major Trading Partners	48
Table 10	International Prices	51
Table 11	Real Annual GDP Growth by Expenditure Type	53
Table 12	Central Model Forecasts (TMM)	56

Assessment of Inflation and Policy Decisions

Annual consumer inflation declined from its high point in 2007 for the fifth month in a row. The rate in September (5.01%) was 102 basis points (bp) less than during the previous quarter and 125 bp below the rate in April, when inflation was the highest so far this year. During the quarter, the average of the three traditional core inflation indicators declined by 35 bp to 4.75%.

The slowdown in food price increases explains most of the reduction in inflation. Less inflation in regulated prices and tradables also was a contributing factor, but not as much.

The reduction in food supply due to El Niño weather caused food prices to rise sharply during the first five months of 2007. However, this trend reversed in the third quarter, when food inflation dropped sharply. Although predicted in earlier reports, both the increase and subsequent drop in food prices were more than estimated. In fact, annual food inflation peaked in May 2007 (10.0%), then declined steadily until September (6.96%).

Regulated price inflation in September (5.96%) was down by 149 bp in the third quarter, thanks to lower rate hikes for public utilities. Inflation in tradable goods, excluding food and regulated prices, went from the high point in April 2007 (2.10%) to 1.19% in September (57 bp below the rate in June). However, the reaction of this last basket to accumulated peso appreciation during the last twelve months remains limited (11.7%).

Annual non-tradable inflation, excluding food and regulated prices, continued on the upward course initiated a year ago. Its annual growth rose by 43 bp in the third quarter to 5.55%, a level similar to the forecast in the June report. However, this indicator was stable between August and September 2007.

For the most part, the decline in inflation during the third quarter of 2007 surpassed the forecast in the previous report and what the market expected, on average, according to the quarterly survey conducted in June by Banco de la República. The accumulated increase in the benchmark interest rate (325 bp), coupled with the other monetary-policy measures that accompanied these hikes, are having an effect and will help to curb price growth next year.

However, some of the inflation pressure sparked by the momentum in local demand persists. At the same time, other external factors have emerged that could influence our economic growth and the price level next year. These events, which are described in this report, add to the uncertainty surrounding the forecasts for inflation and economic growth in 2008. The following summarizes how the major determinants of inflation are expected to perform in the coming quarters.

1. With the exception of tradables, excluding food and regulated prices, the other CPI classifications continued to register annual inflation above the target range for 2007. Coupled with the likelihood that this year's inflation target will not be met, this could generate inertia in inflation expectations and affect the development of prices and wages in 2008. Moreover, both the quarterly and monthly surveys done by economic analysts show they still expect inflation in 2008 to exceed the target range for 2007.

2. Prices for commodities such as oil, soybeans and other farm products used to produce bio-fuels continue to rise. This has a positive impact on the economies of many of our trading partners (Venezuela, México, Brazil, etc.), but can cause additional inflation pressure in Colombia.

3. The pass-through of peso appreciation to inflation in tradable goods and services has been limited and could weaken if the exchange market becomes more volatile. In this respect, it is important to remember that the peso/dollar exchange rate, of late, has been among the most instable in the region and that preliminary forecasts point to an increase in the current account deficit during 2008.

4. According to the economic indicators, the growth in aggregate demand likely will remain high. Household consumption, which rose by nearly 8% during the second half of the year, could maintain its momentum. This is indicated by the opinion polls, consumer loan portfolio growth, and the substantial increase in household imports. Accordingly, there is still the risk that the increase in local demand will be slower than expected to return to rates that are consistent with keeping inflation on target.

5. At June 2007, the indicator of financial depth, measured as the quotient between the loan portfolio and GDP, shows retail and commercial loan rates have surpassed their historic highs, while the level of the mortgage portfolio remains low. Although the gross loan portfolio increased less during the third quarter of 2007, it continues to grow at rates above the increase in nominal GDP. The build-up in credit helps to keep growth in aggregate demand high, but also reinforces the ability of monetary policy to influence household and company decisions on spending.

6. The increase in interest rates on lending and deposits during the third quarter of 2007 shows pass-through to the credit channel has gained speed. In September, real interest rates on deposits (known in Spanish by the acronym DTF) and those on commercial, preferential and treasury

loans were similar or slightly above their historic average. However, they continue to rise, partly because the usury rate is up, and are likely to exceed that average in October.

7. A solution to the mortgage market crisis in the United States could be slower in coming, which means it would have more of an impact on world economic growth than anticipated initially. In that case, our trading partners might experience less growth, which would exert downward pressure on our export products. Aggregate demand in the Colombian economy could decline as a result and the peso would tend to depreciate. This last effect would be even greater if changes on the international scene reduce the flow of capital into Colombia.

In view of the foregoing, the Board of Directors decided, at a meeting in August 2007, to hold off on further hikes in the Bank's benchmark interest rate until more is known about how the volatility on international markets could affect the Colombian economy and the impact monetary policy could have on aggregate demand and prospects for inflation.

Board of Directors
Banco de la República

Inflation
REPORT

Prepared by:

The Programming and Inflation Department of the Economic Studies Division

TECHNICAL MANAGEMENT
Hernando Vargas
Deputy Technical Governor

DIVISION OF ECONOMIC STUDIES
Jorge Hernán Toro
Chief Officer

PROGRAMMING AND INFLATION DEPARTMENT
Carlos Huertas
Department Head

INFLATION SECTION (*)
Adolfo León Cobo
Head

Alejandro Reyes
Édgar Caicedo
José David Pulido
José Luis Torres
Luz Adriana Flórez
Sergio Olarte

(*) This report was prepared with the help of Gloria Alonso, Macroeconomic Programming Section Chief; Daira Garrido, Juan Nicolás Hernández and Luis Hernán Calderón, who are experts in the Macroeconomic Programming Section; Martha López of the Special Affairs Unit in the Macroeconomics Models Department; Andrés González, Macroeconomics Models Department Chief; and Eliana González, Norberto Rodríguez, Diego Rodríguez and Juan David Prada, who are experts in the Macroeconomic Models Department.

I. Recent Developments in Inflation

The decline in annual inflation during the third quarter was more than anticipated in the June report and is explained primarily by the slowdown in food price hikes and, to a lesser extent, by a smaller amount of inflation in regulated prices and tradables.

All the core inflation indicators registered a decline in their annual variation. However, the average for the three traditional indicators calculated by Banco de la República is running above the target range for the year.

Inflation expectations declined. However, they continue to exceed the range set by the Board of Directors to determine the mid-point of the inflation target for 2008 (between 3% and 4%).

Economic growth during the second quarter (6.9%) was less than in the first. However, the growth in local demand and household consumption remained high and surpassed the GDP growth rate.

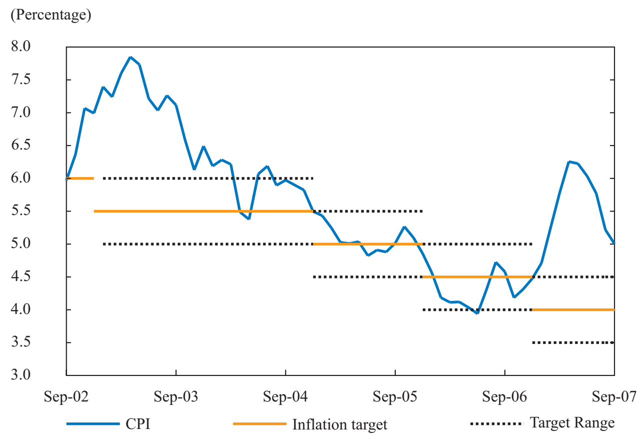
A. Recent Developments in Inflation

Annual inflation at September 2007 was 5.0%. This is 102 basis points (bp) less than in June and adds up to five consecutive months of a decline in this indicator from the recent high in April (6,3%) (Graph 1). However, despite the slowdown during the last two quarters, inflation continues to top the target range set by the Board of Directors of Banco de la República (BDBR) for 2007 (4.5%).

As anticipated in past reports, the decline in annual consumer inflation between April and September was associated largely with less of an increase in food prices. The drop in non-food inflation also was a contributing factor, but less so (Table 1). In the case of food, the items affected by adverse weather 3at the start of the

Graph 1

Annual Consumer Inflation and Targets



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

year, due to El Niño, contributed the most to that decline. Imports were a factor as well; their local prices are tied closely to international prices and the exchange rate. In contrast, the food prices that were affected by the momentum in local and external demand continued to pressure the recent upswing in inflation.

With respect to the non-food consumer price index (CPI), its contribution to lowering inflation during the last five months was concentrated in regulated prices and tradables. In the case of the former, the decline in inflation was possible thanks to less of an adjustment in energy and gas prices, while the favorable performance of tradables, without food and regulated prices, was due to accumulated appreciation in the exchange rate. On the other hand, because of the temporary nature of the depreciation registered in July and August, no upward pressure was exerted on the items in this basket.

Although annual consumer inflation continued to decline during the third quarter, as Banco de la República and the market anticipated, the actual reduction exceeded the estimate in the June report, when 5.3% inflation was predicted for September. The forecast error was primarily because the increase in food prices was overestimated. In contrast, the projection for non-food inflation was slightly below the official figure. The forecasts for this last basket were higher than the

Table 1

Inflation Breakdown Showing Upward Pressures

Description	Weight	Annual Growth:				Share of:		
		Dec-06	Apr-07	Jun-07	Sep-07	Slowdown between April and September	Current Year Build-up: At June	Current Year Build-up: At September
Total	**100.00**	**4.48**	**6.26**	**6.03**	**5.01**	**100.00**	**100.00**	**100.00**
Non-food	**70.49**	**3.95**	**4.55**	**4.38**	**4.12**	**24.01**	**18.15**	**31.06**
Tradables	24.67	1.71	2.10	1.76	1.19	17.65	0.31	(12.06)
Non-tradables	36.77	4.75	5.09	5.12	5.55	(10.91)	7.64	33.62
Regulated prices	9.04	6.12	7.74	7.40	5.96	17.26	10.20	9.50
Food	**29.51**	**5.68**	**10.04**	**9.69**	**6.96**	**75.99**	**81.85**	**68.94**
El Niño	7.15	2.79	9.40	7.06	1.35	57.72	24.89	(12.04)
International prices	5.35	9.62	10.73	9.22	6.61	17.36	(0.63)	(19.95)
Local demand	9.52	5.83	8.18	8.56	8.10	0.57	15.99	28.36
External demand (Venezuela)	7.48	5.81	12.57	14.57	12.40	0.34	41.60	72.57

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

actual outcome for tradables (excluding food and regulated prices), but underestimated non-tradable inflation (excluding food and regulated prices) and, particularly, inflation in regulated prices (Table 2).

Table 2

Actual and Forecast Inflation for September 2007

	Forecast at June 2007	Actual Inflation	Forecast Minus Actual Inflation
Total inflation	**5.30**	**5.01**	**0.29**
Non-food inflation	**4.00**	**4.12**	**(0.12)**
Non-tradables	5.50	5.55	(0.05)
Tradables	1.30	1.19	0.11
Regulated prices	5.30	5.96	(0.66)
Food inflation	**8.20**	**6.96**	**1.24**

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

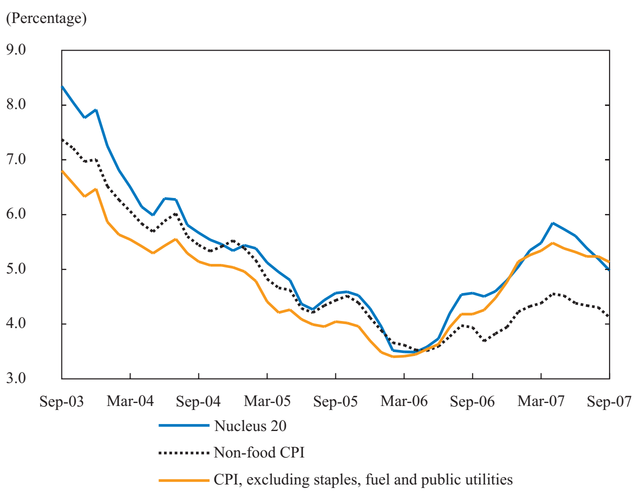
In general, the third quarter continued to witness prices hikes for fuel and transportation. Coupled with the rise in non-tradable inflation (excluding food and regulated prices), which was well above the Bank’s target, this could indicate the presence of demand-pulled inflation pressures. As has been the case for several quarters, increases in the price of these items continue to be offset by tradable inflation, which remains low thanks to accumulated appreciation in the exchange rate. There also has been a sharp reduction in the extent of price hikes for public utilities as of May, partly because the formula for adjusting those prices contemplates the changes in the producer price index (PPI), which has experienced deflation as a result of appreciation in the exchange rate.

1. Core Inflation

As with total inflation, the average of the three core inflation indicators (4.7%) monitored regularly by Banco de la República declined compared to the figure at the end of the second quarter (5.1%). It was highest last April (5.3%) and has topped the target range since the beginning of the year (Graph 2). The three indicators declined as of April and, by September, were at their lowest point for this year. Nucleus 20 was 5.0%, non-food CPI was 4.1% and CPI, excluding staple foods, fuel and public utilities, was 5.1%.

Graph 2

Annual Variation in Core Inflation Indicators

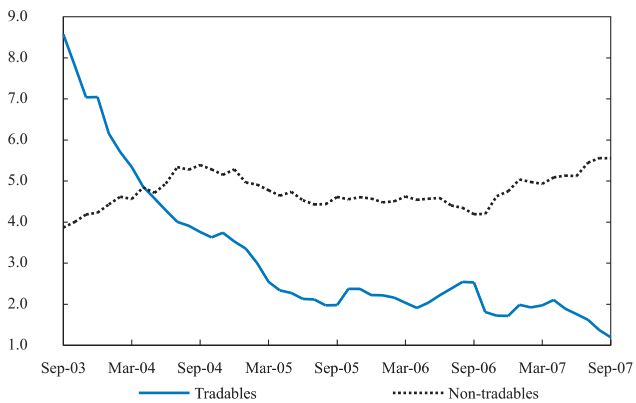


Source: DANE. Banco de la República's calculations.

Graph 3

Annual Variation in Tradable and Non-tradable CPI, Excluding Food and Regulated

(Percentage)



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

A look at the basic components of the most common core inflation indicator (non-food CPI) shows two opposite developments. The first concerns non-tradables, which have experienced a build-up in inflation since late last year. The other concerns tradables and regulated prices; inflation in these items has declined steadily since the second quarter of 2007.

Non-tradable inflation, excluding food and regulated prices, went from an annual rate of 4.2% in October 2006 — the most recent low— to 5.1% in June and 5.6% in September 2007 (Graph 3). Most of the items in that sub-basket, including rentals, rose during the third quarter and were above the target range (4.5%). Past reports had anticipated an upswing in this indicator, given estimates of the output gap, which placed it in positive terrain since last year, and considering the time it normally takes for changes in monetary-policy to have an impact (about six quarters).

In the Colombian case, the figures show that prices for non-tradables, excluding food and regulated prices, usually are quicker to respond to changes in demand than to the price of other CPI components. Therefore, growth in this indicator denotes the likelihood of demand-pulled pressures on prices in past months, which have not been dispersed completely. This interpretation is reinforced by the fact that non-tradable inflation, excluding food and regulated prices, is currently running above the top of the target range, as it has for several quarters. This was not the case in past years.

Tradable inflation, excluding food and regulated prices, also was up slightly by April 2007 (2.11%), but has declined steadily ever since, ending September at 1.2%, which is 57 bp less than the rate at June (Graph 3). Given appreciation so far this year (9.6%), the Bank's forecasts predicted a more pronounced drop in inflation for this group, which could indicate that other factors are now in play, such as local and external demand. These elements might be lessening the impact of appreciation on inflation.

The slowdown in annual regulated price inflation during recent months has offset part of the increase in the non-tradable CPI. In September, regulated inflation was 6.0%, which is 144 bp below the rate in June (Graph 4). This subgroup benefited from the low rate hikes for public utilities, partly because a fraction of those prices depend on changes in the PPI, which allowed for less growth. However, the corrections have not been enough to keep regulated price inflation within the target range, to some extent because of the increase in transportation fares.

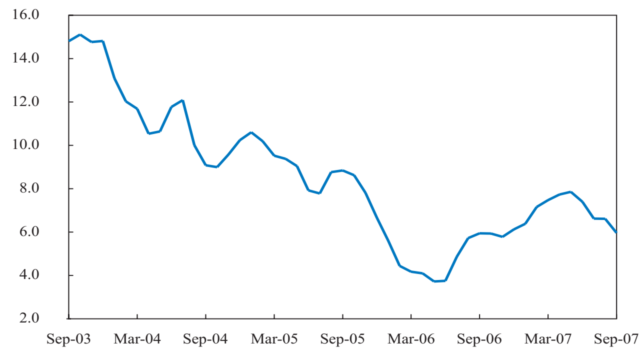
2. Food Inflation

As predicted in earlier reports, food inflation began to decline after the negative supply shock caused by El Niño weather during much of the first half of the year. The most recent peak was in May (10.0%); after that, food inflation fell steadily until September (7.0%) (Graph 5). Although this indicator has been declining in Colombia, it is important to remember that food has become a driving force of inflation this year in many other parts of the world. The surge in demand for bio-fuels and the growing demand for commodities in China and India, coupled with the consolidation of economies in countries such as Russia, Indonesia and Brazil, are now factors that could keep food prices high for quite some time, or at least at historically high levels.

The slowdown in annual food inflation as of May 2007 is associated with the dip in prices for perishables, especially fruits and vegetables. Prices for processed foods also fell during the third quarter, although less so than prices for perishables (Graph 6). Lower inflation in prices for meat and meat substitutes was a particularly important component of processed food prices. The supply of those products apparently has benefited from government control over exports and the return to normal rainfall as of the second quarter. A larger supply is another factor that helped to curb prices, particularly in the case of chicken, thanks to more investment in the

GRAPH 4

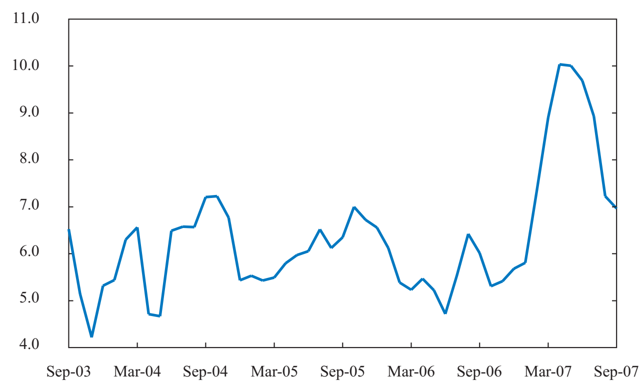
REGULATED CPI
ANNUAL VARIATION



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

GRAPH 5

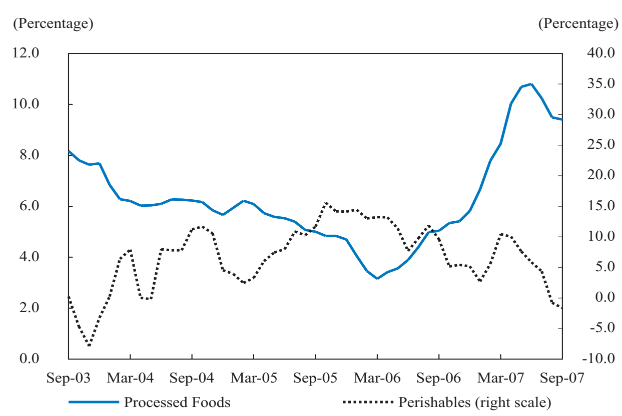
FOOD CPI
ANNUAL VARIATION



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

GRAPH 6

FOOD INFLATION: A BREAKDOWN
ANNUAL VARIATION



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

The price of foods affected by demand continued to exert pressure on inflation.

country's poultry industry as a response to the steady increase in local and foreign demand (mainly in Venezuela).

Food accounts for 69% of the build-up in inflation between December 2006 (4.48%) and September 2007 (5.01%) (Table 1). A look at food CPI in terms of the four baskets that are subject to different price pressures shows the agricultural supply affected by El Niño weather was an important cause of higher annual inflation between January and June. After that, and until September, it contributed to disinflation. Once again, foods influenced by international prices exerted downward pressure on inflation during the third quarter, thanks to recent appreciation of the peso. This offset high food prices on international markets. In contrast, food prices that are sharply affected by external demand (Venezuela) remained a major factor with respect to inflation, as was the case with foods that are sensitive to local demand.

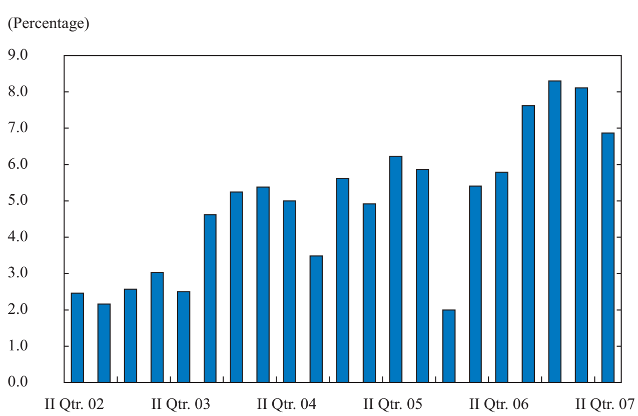
B. Factors that Determine Inflation

1. Aggregate Demand

According to the latest figures released by the National Bureau of Statistics (DANE), economic growth slowed from 8.1% to 6.9% during the second quarter of the year (Graph 7). This figure was no surprise to the technical team at Banco de la República. The changes in GDP during the first two quarters suggest the build-up in growth registered during the first half of 2006 is tapering off and the economy is returning to more moderate growth. Even so, economic expansion in Colombia remains high compared to the average for the decade (4.0%) and the average for the past 40 years (4.1%).

Graph 7

Real Annual GDP Growth



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

Although the increase in local demand slowed from 11.1% in the first quarter to 9.6% in the second, it continues to fuel growth. The increase in local demand is running at a rate above that of gross domestic product (GDP), as it has since 2004. Consequently, the trade deficit, in real pesos, continues to widen and was 9.1% of GDP in June (Graph 8).

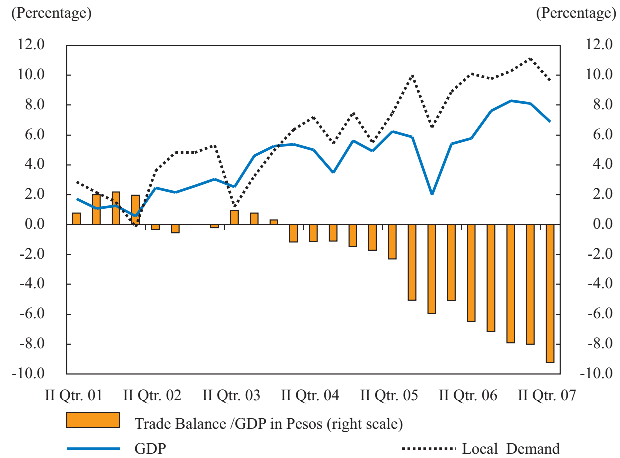
The increase in local demand was led by household consumption (7.9%) and by total investment (20.2%). Government consumption accounted for only a small portion, despite its recovery compared to the previous quarter (from -0.6% to 1.6%) (Table 1). Its limited momentum is consistent with the government's consolidated deficit targets for this year (de -0.7%).

The item that contributed the most to GDP growth during the second quarter was household consumption: 5.0 percentage points (pp). Durable goods were the component with the largest increase (27.3%), continuing the sharp upward trend initiated in mid-2003. The second component to experience the most growth was semi-durables consumption (7.3%). The other two components of private consumption showed important momentum, although not as much. Non-durable goods, which accounted for a significant share of household consumption, are a case in point. Their annual increase came to 5.5%, while services such as home rentals, social, community and personal services, and commerce – the second leading component – were up by 5.4% (Table 3).

Total investment was the second item to contribute the most to the annual variation in GDP during the second quarter: 4.9 pp. Investment in transport equipment remained the most dynamic, but has slowed with respect to earlier quarters.

Graph 8

Real Annual Growth in GDP and Local Demand, and the Balance of Payments as a Percentage of GDP



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

Table 3

Real Annual GDP Growth by Type of Expenditure and Contribution to Growth (Percentage)

	I Qtr. 07	II Qtr. 07	Contribution
End Consumption	**5.9**	**6.5**	**5.3**
Household	7.9	8.0	5.0
Government	(0.4)	1.6	0.3
Gross Capital Formation	**30.1**	**20.2**	**4.9**
Gross fixed capital formation (GFCF)	27.8	13.9	3.0
GFCF without civil works	24.6	12.8	2.2
Civil works	39.9	18.2	0.8
Variation in inventory	51.1	74.8	1.9
Local demand	**11.1**	**9.6**	**10.3**
Local demand without variation in inventory	**10.2**	**8.0**	**8.3**
Total exports	**8.6**	**4.3**	**0.8**
Total imports	**21.0**	**16.3**	**4.2**
GDP	**8.1**	**6.9**	**6.9**

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

Household consumption was the item that accounted for most of the growth.

However, investment in machinery and equipment and in civil works also continued to perform quite well, having grown by 22.2% and 18.2%, respectively. The increase in investment in the agricultural sector was modest (1.8%) and similar to what it was in the first quarter. Investment in buildings, apart from civil works, was the only component in the group to see negative growth (-1.5%). According to DANE, this was due to a lesser amount of progress in ongoing works.

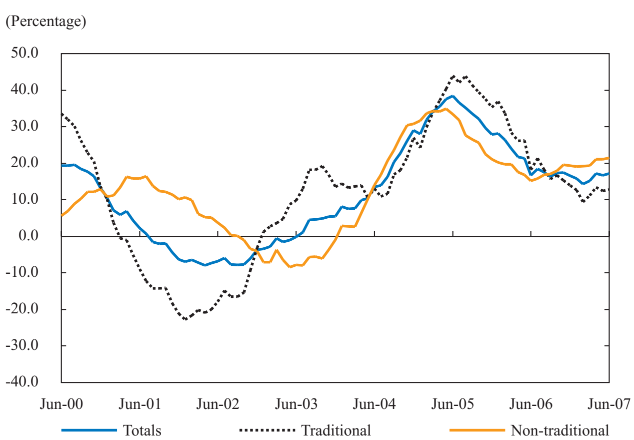
Total imports, in real pesos, were up by 16.3% compared to the second quarter of 2006. This is 4.7 pp less than the increase registered during the previous quarter. In dollars, CIF imports of consumer goods increased the most (31.0%). This is consistent with the sharp rise in household consumption. Imports of capital goods and raw materials, in dollars, also saw considerable growth during this period: 20.5% and 27.7%, respectively. This strong momentum is backed by more investment in machinery and equipment and in civil works (as described earlier).

Exports in constant pesos slowed during the first and second quarters of 2007 (from 8.6% to 4.3%, in that order). This was due mainly to weak oil export performance so far this year, but also to the sharp drop in service exports (17.5%) measured in real pesos. The calculations for these exports were affected by peso appreciation during the first half of 2007.

No major change in growth was registered for exports in dollars during the second quarter. The accumulated increase in merchandise exports for the previous 12 months was 17.2%, spearheaded by non-traditional exports, with 21.5% growth, while traditional exports rose 12.8% (Graph 9). Ferronickel and coals were the most important components of this last item, registering 125.1% and 31.6% growth, respectively. Coffee exports have recovered throughout the year, thanks to higher international prices and their impact in terms of boosting supply. The annual increase in coffee exports was 16.5% by June. In contrast, the value of oil exports in dollars dropped 8.4% during the second quarter with respect to same period in 2006. This decline is explained by less exportable supply and lower international prices during those months.

GRAPH 9

TOTAL TRADITIONAL AND NON-TRADITIONAL EXPORTS IN DOLLARS (ANNUAL GROWTH IN THE LAST 12 MONTHS)



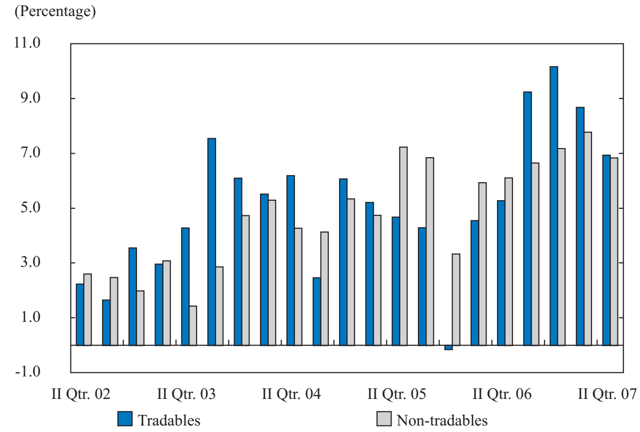
Source: DANE and Banco de la República's calculations.

In terms of destination, Venezuela is still our most dynamic trading partner. Between January and July, the accumulated figure for the annual increase in exports to that country, in dollars, was 73.1%. In contrast, exports to the United States fell by 5.5% during the same period, possibly because of less growth in US demand and the increased in competition Colombian products (particularly textiles and clothing) face from Asian and European manufacturers (See Box 1).

From the standpoint of supply, the slowdown in GDP during the second quarter of 2007 involved both tradables[1] and non-tradables[2]. The increase in tradables went from 8.7% during the first quarter to 6.9% in the second, while non-tradables slowed from 7.8% to 6.9% (Graph 10). The reduction in tradable GDP growth was due largely to the drop in oil production, while dwindling growth in the building construction sector was primarily responsible for the slowdown in non-tradables.

Graph 10

Annual GDP Growth in Tradables and Non-tradables



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

A breakdown by sectors shows industrial manufacturing was still responsible for the largest contribution to growth (1.8 pp), followed by commerce, repairs, restaurants and hotels (1.3 pp) and transport, storage and communication (1.0 pp). Unlike the first quarter, construction made little difference in GDP growth (having contributed 0.4%), because of the drop in building GDP (mentioned earlier) and a slowdown in civil works, which plunged from 39.9% growth in the first quarter to 18.2% in the second. The agriculture, livestock, forestry, hunting and fishing sector remained weak, accounting for only 0.3 pp of the variation in GDP (Table 4).

2. Surplus Production Capacity

Available indicators in the second and early third quarters of 2007 suggest that surplus production capacity continues to decline and production is growing, as it has for more than a year. The expected demand/ installed company capacity ratio, published in the Fedesarrollo Business Opinion Survey, is clear in that respect.

Exports to Venezuela have been the most dynamic.

1 The tradable sectors are agriculture and livestock; forestry, hunting and fishing; mining and quarries; industrial manufacturing; water, air, supplementary and auxiliary transport services; and company services (excluding financial and real estate services).

2 The non-tradable sectors are electricity, urban natural gas and water; construction; commerce and repairs, restaurants and hotels; land transport services; postal services and telecommunications; financial intermediation and related services; real estate and home rental services; social, community and personal services.

Table 4

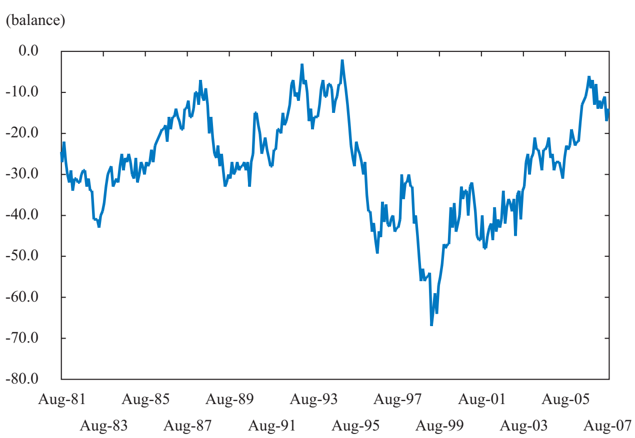
Real Annual Sector Growth in GDP
(Percentage)

	I Qtr. 07	II Qtr. 07	Contribución
Agriculture, forestry, hunting and fishing	1.9	2.8	0.3
Mining and quarries	(0.5)	4.8	0.2
Electricity, gas and water	3.8	1.8	0.1
Manufacturing industry	14.5	12.1	1.8
Construction	27.1	6.2	0.4
Buildings	17.8	(1.7)	(0.1)
Civil works	39.9	18.2	0.5
Commerce, repairs, restaurants & hotels	11.6	10.8	1.3
Transport, storage & communication	10.3	12.1	1.0
Financial, insurance, real estate and business service companies	5.0	15.7	2.5
Social, community and personal services	0.4	1.8	0.3
Financial intermediation, measured indirectly	8.5	80.2	2.3
Sub-total: Aggregate value	7.4	6.1	0.0
GDP	**8.1**	**6.9**	**6.9**
Tradables [a/]	8.7	6.9	0.0
Non-tradables	7.8	6.8	0.2

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

Graph 11

Demand Expected in the Next 12 Months Compared to Installed Capacity



Note: Seasonally-adjusted series.
Source: Fedesarrollo. Banco de la República's calculations.

Although this variable has not increased in recent months, it is still high from a historical perspective. Consequently, businessmen are likely to use more of their resources and installed capacity to meet the current demand (Graph 11).

In the past, extensive use of production resources was accompanied by inflation pressure, which might now be the case as well. The surge in the various core inflation indicators between May 2006 and May 2007, and the increase since November 2006 in non-tradable inflation, excluding food and regulated prices, are evidence to this effect. Both these signals denote the presence of demand-pulled pressures during the second and third quarters, which were not contained fully by expectations or by productivity gains. If factor utilization continues at the levels witnessed so far, the presence of inflation pressures in the months ahead cannot be ruled out.

In short, the central scenario for this report takes into account the high production-capacity-utilization rates observed in the third quarter, which are similar or even more than those in the second quarter. Although some of the indicators began to stabilize, or declined somewhat on this occasion, it is still unclear if this movement implies a generalized break in trend.

Taking this into account, plus the growth witnessed during the first half of the year and the data on investment and the increase in employment, the various methods Banco de la República uses to estimate the output gap place the average for 2007 between 1.3% and +3.9%, with 2.6% being the most likely (Graph 12). These results are similar to those published in the June report and suggest the output gap, although high, would not continue to grow during the latter half of 2007.

Implicit in the foregoing estimate is potential GDP growth above 5% for 2007. However, according to the production function approach, this is explained largely by more intensive use of production factors (capital and labor) rather than by productivity gains.

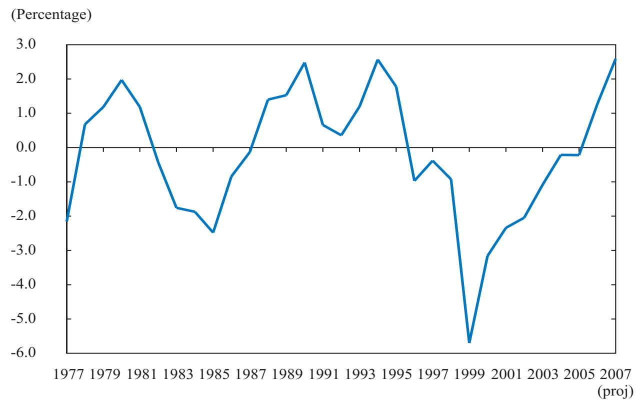
3. Wage Costs and the Labor Market

So far this year, most wage-cost indicators show less annual variation compared to the same period in 2006. Construction was the only exception. Wages in that sector have soared because of wages for less-skilled labor. The annual wage increase in commerce remained stable, but the increase in industrial wages slowed (Graph 13). At the same, the wage-hike indicators based on collective bargaining agreements show that most increases in 2007 were under 6%, which is below the average increase bargained in 2006 (Table 5).

Employment figures, on the other hand, suggest the labor market continues to tighten. The unemployment rate, which had not fallen since mid-2006, coinciding with the change in the method DANE used for its Job Survey, declined once again in recent months. Urban unemployment was 11.1% in August, which is 1.5 pp less than in August 2006. At the time this report was

GRAPH 12

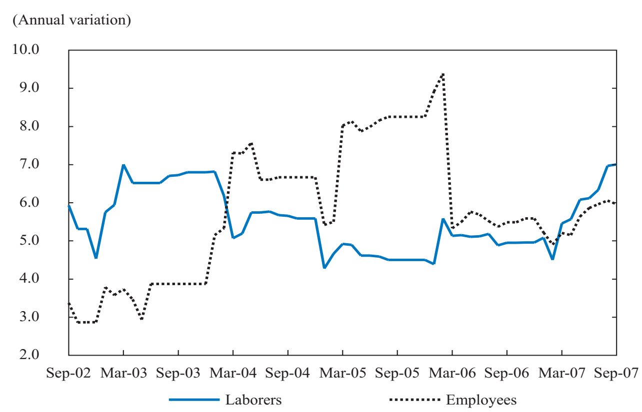
OUTPUT GAP



(proj) Projected
Source: Banco de la República.

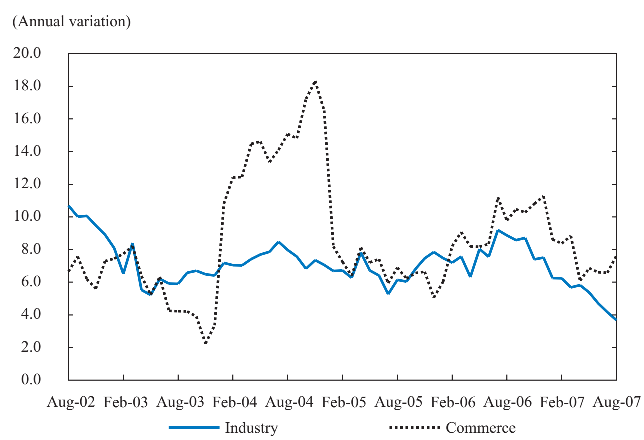
GRAPH 13

HEAVY CONSTRUCTION WAGE INDEX



Note: Laborers include foremen, manual workers, craftsmen and factory hands.
Employees include chief engineers, assistant engineers, clerks, accountants and watchmen
Source: ICCP-DANE.

NOMINAL WAGE COSTS
IN INDUSTRY AND COMMERCE



Source: DANE-MMCP-MMM.

written, DANE released the figures for September, which confirm the downward trend in unemployment, particularly in the urban areas. This is due to a higher occupation rate, particularly in September, which offset the recent recovery in the labor-force participation rate (Table 6). The figures for August and September are the first that can be compared to the data obtained in the Overall Household Survey (known in Spanish by the acronym GEIH). The annual variation is similar to the one reported before the method was changed.

Other employment indicators for the third quarter corroborate the trends reflected in the GEIH. For example, the surveys of industry (MMM) and commerce (ECM) show significantly more employment in those sectors: 2.6% and 7.4% in August, respectively. The August edition of the Commerce Survey confirms the steady build-up in this variable since early 2004, while the industrial sample reflects a bit of a slowdown in industrial employment throughout the year (Graph 14). Social security is another source of information that shows considerable momentum in

TABLE 5

PERCENTAGE OF BENEFICIARIES PER WAGE HIKE BARGAINED FOR 2007

	<5	[5.6]	[6.7]	[7.8]	[8.9]	>9
Bargained in 2006 (figures at June)	19.31	23.82	50.97	5.89	0.01	0.00
Bargained in 2007 (figures at June)	28.76	28.95	31.68	10.43	0.17	0.00

Source: Ministry of Social Protection. Banco de la República's calculations.

TABLE 6

LABOR MARKET INDICATORS

	September					
	2003	2004	2005	2006	2007	Difference between 2006 and 2007
Global participation rate						
National	63.0	60.0	60.0	56.3	57.6	1.3
Thirteen cities	65.1	62.8	62.8	60.0	61.7	1.
Occupation rate						
National	54.3	52.5	53.3	49.0	51.4	2.4
Thirteen cities	54.6	53.4	54.3	52.3	55.1	2.9
Unemployment rate						
National	13.9	12.5	11.2	12.9	10.8	(2.2)
Thirteen cities	16.1	14.9	13.5	12.8	10.6	(2.2)

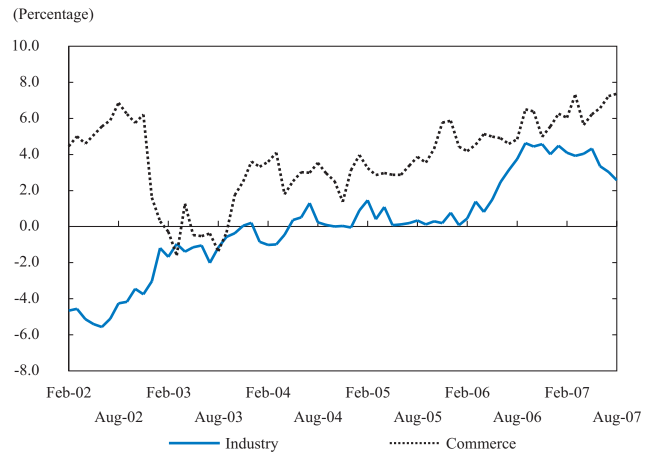
Source: DANE-GEIH.

job creation. In July, the number of workers contributing to social security was up by 9.1% compared to the same month in 2006. These figures suggest there has been an improvement in formal employment (Table 7).

Although employment is advancing at a good pace, especially in the country's urban areas, and has pushed unemployment to the lowest levels of the decade, we have yet to see clear and generalized signs of pressure on wage costs. Even so, the latest figures indicate that employment is gaining speed. This raises the risk of wage pressures emerging in the next few quarters. Various NAIRU measurements point to gradual tightening in a labor market that can no longer be considered loose.

GRAPH 14

EMPLOYMENT IN INDUSTRY AND COMMERCE
(ANNUAL VARIATION)



Source: DANE-MMCP-MMM.

TABLE 7

SOCIAL SECURITY INDICATORS IN THE NATIONAL TOTAL

Subsystems	July		Variation between July 2007 and July 2006	
	2006 a/	2007 a/	Absolute	Percentage
Workers affiliated with family subsidy funds	4,643,509	5,109,824	466,315	9.13
ARP affiliates	5,338,733	5,882,252	543,519	9.24
Active pension fund affiliates (ISS + AFP)	4,659,015	5,124,734	465,719	9.09
Active ISS affiliates	1,958,288	1,870,840	(87,448)	(4.67)
Workers contributing to mandatory pension funds	2,700,727	3,253,894	553,167	17.00

a/ In the case of ARP affiliates, the figure is for June.
Source: Ministry of Social Protection.

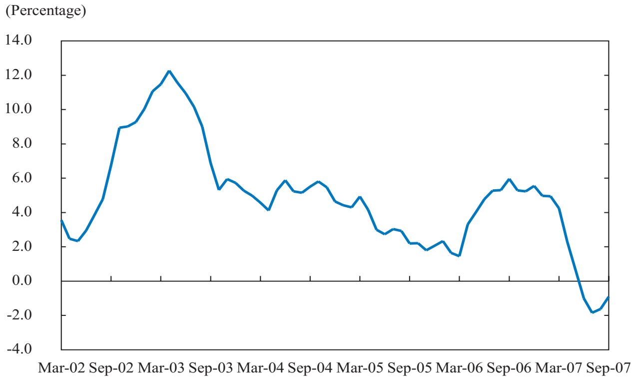
4. Other Costs

The total PPI does not suggest the presence of non-wage cost pressure during the third quarter. In September, the PPI registered negative annual growth (-0.91%) for the fourth month in a row, although deflation was less during the last two months. A look at the data for the different branches of economic activity shows annual growth at September remained low for agriculture (1%) and industry (-1.8%), but increased in the mining sector (to 8.6%) (Graph 15).

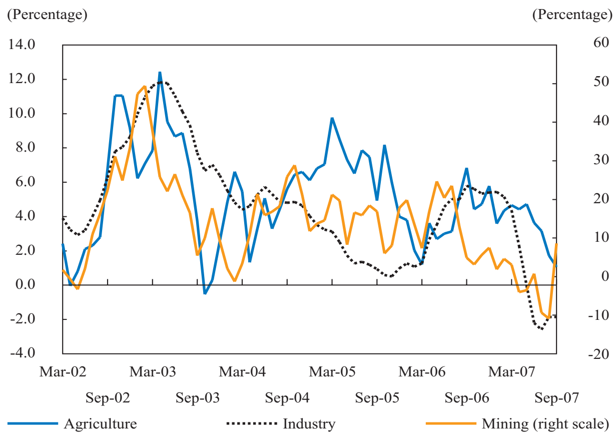
On the one hand, the PPI reflects a slowdown in agricultural prices as of the second quarter of 2007, coinciding with the return of normal weather. On the

Graph 15

Total PPI
(Annual variation)



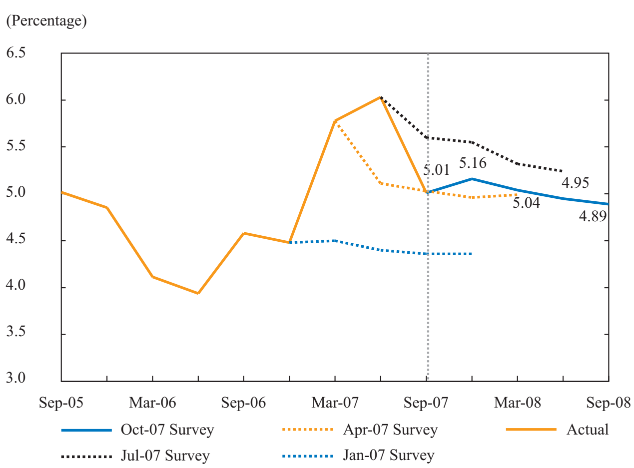
PPI by Components
(Annual variation)



Source: Prior to December 2006, Banco de la República, and after December 2006, DANE and Banco de la República's calculations.

Graph 16

Inflation Expected at Three, Six, Nine and Twelve Months



Source: Banco de la República, Quarterly Expectation Survey.

other, it reflects a change in the trend in mining prices, which are being affected by higher prices for oil, natural gas and coal. If this trend continues it could imply more inflation pressure in the future compared to the predictions in earlier reports. The figures also show that recent appreciation of the peso has lowered costs for local producers. Negative imported PPI inflation in the last few months is evidence of this fact. The annual rate in September was -12.7%.

5. Inflation Expectations

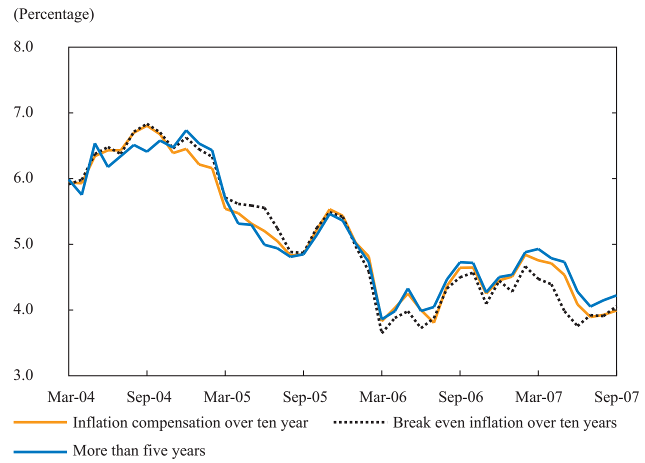
Year-end inflation expectations varied little in recent months, staying at around 5%. This is suggested by measurements based on the monthly survey of financial market operators and the quarterly survey of the business community, trade unions and academics. The results of these surveys are show in Graph 16. Both the monthly and quarterly inflation expectation surveys at December and for the 12 months declined compared to the situation registered at mid-year. Those interviewed for the quarterly survey expect inflation to be 5.2% by December of this year and 4.9% next September.

Expectations based on the yield differential between fixed-rate TES and inflation-indexed TES (denominated in real value units: UVR) indicate much the same, showing a reduction in the variable as of March 2007 (Graph 17). One thing to bear in mind with respect to this measure is that the increase in inflation registered since the start of the year raised expectations slightly, but less than with other measurements and never above 5%. Moreover, in this case, the increase was more temporary, and less than the one caused on previous occasions by temporary price shocks. This might indicate the financial market is more confident about the monetary authority's commitment to low inflation, and that compliance with the targets has become more credible. This supports the idea that expectations are anchored at lower levels than in the past.

It is important to remember that all the measurements show inflation expectations running above the target range set by the Board of Directors to determine the mid-point for 2008 (between 3% and 4%). In addition to the possibility that inflation will end 2007 above the top end of the target range (as discussed in Chapter Three of this report), wage and price adjustments might be induced that would make it difficult to stabilize prices.

Graph 17

TES-Derived Inflation Expectations, Monthly Average



Source: Banco de la República.

Exports to Colombia's Two Major Trading Partners: 2005-2007

Dayra Garrido
Juan Nicolás Hernández A.*

The annual increase in total Colombian exports between January and July 2007, in millions of dollars,[1] came to 16.1%.This is, respectively, 0.5 percentage points (pp) and 11.8 pp less than the increase in 2006 and 2005 (Table B1.1). Yet, despite the slowdown, every export sector other than petroleum and its by-products registered positive growth this year, up to July, particularly the industrial sector (23.8%). It accounted for 54.7% of the increase in total exports.

Table B1.1
Total Colombian Exports

	Millions of Dollars: January-July			Annual Growth Rate: January-July		Contribution to the Variation: January-July
	2005	2006	2007	2006	2007	2007
Total exports	**11,551**	**13,463**	**15,627**	**16.6**	**16.1**	**100.0**
Traditional exports	**5,786**	**6,745**	**7,509**	**16.6**	**11.3**	**35.3**
Coffee	919	790	935	(14.0)	18.3	6.7
Coal	1,540	1,539	2,138	(0.1)	38.9	27.7
Ferronickel	464	486	1,083	4.6	122.9	27.6
Petroleum and its derivatives	2,862	3,930	3,353	37.3	(14.7)	(26.7)
Fuel oil and its derivatives	754	1,152	650	52.7	(43.5)	(23.2)
Crude oil	2,108	2,778	2,702	31.8	(2.7)	(3.5)
Non-traditional exports	**5,765**	**6,718**	**8,118**	**16.5**	**20.8**	**64.7**
1. Agricultural sector	1,201	1,239	1,501	3.2	21.2	12.1
2. Industrial sector	4,351	4,979	6,163	14.4	23.8	54.7
Chemical industry	1,023	1,143	1,384	11.7	21.1	11.2
Food, beverages and tobacco	626	678	752	8.2	11.0	3.5
Base metal industry	407	579	673	42.2	16.3	4.3
Garments	523	534	659	2.2	23.4	5.8
Transport material	411	422	618	2.7	46.6	9.1
Machinery and equipment	297	368	511	23.8	39.0	6.6
Graphic arts and publishing	296	349	427	18.0	22.4	3.6
Non-metallic minerals	222	288	325	29.6	12.6	1.7
Yarns, threads and fabrics	169	173	229	2.6	32.1	2.6
All others	379	447	585	18.0	30.9	6.4
3. Mining sector	213	499	454	134.7	(9.0)	(2.1)
Gold exports by private parties	297	204	133	(31.4)	(34.7)	(3.3)

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

* The authors are, respectively: a balance-of-payments expert and professional with the Programming and Inflation Department. They wish to thank the Programming and Inflation Department, particularly Carlos Huertas and Gloria Alonso, for their valuable comments and suggestions. Víctor Hernández's assistance in providing data also is much appreciated. The opinions expressed in this article are those of the authors and imply no commitment on the part of Banco de la República or its Board of Directors.

1 Information taken from DANE statistics on FOB exports.

Most of the slowdown in total exports is due to less momentum in sales to the United States, which is the country's major trading partner. However, this decline has been offset, in part, by the increase in exports to Venezuela, which is Colombia's second most important trading partner.

Up to July 2007, the increase in exports to the United States was negative by 5.5%, which is 28.4 pp below the average for 2005 - 2006. As illustrated in Table B1.2, there were major reductions in petroleum and its derivatives (-14.3%), and in industrial products (-11.2%). Fuel oil and light oil had the most impact on exports of petroleum and its by-products. According to the Ministry of Commerce, Industry and Tourism (Mincomercio),[2] the United States is consuming less fuel oil and more natural gas. As to crude oil, the decline in exports is expected to be 4.8% compared to the same period in 2006. The reduction in crude-oil export values is solely a question of price: more volume was exported for less value.[3]

The industrial sector accounted for 36% of the drop in exports to the Untied States. The industries that contributed the most to that decline were garments (17.0%); food, beverages and tobacco (5.7%) and base metals (7.0%). Mincomercio says the reduction in Colombian textile and garment exports to the United States is due to a loss of market share to Asian and some European countries.

Table B1.2
Total Exports to the United States

	Millions of Dollars: January-July			Annual Growth Rate: January-July		Contribution to the Variation: January-July 2007
	2005	2006	2007	2006	2007	
Total exports	**4,535**	**5,833**	**5,510**	**28.6**	**(5.5)**	**100.0**
Traditional exports	**2,906**	**3,944**	**3,755**	**35.8**	**(4.8)**	**58.6**
Petroleum and its derivatives	2,081	3,064	2,625	47.2	(14.3)	136.0
Fuel oil and other derivatives	355	694	367	95.5	(47.0)	101.0
Crude oil	1,726	2,371	2,258	37.3	(4.8)	35.0
All others	824	880	1,130	6.8	28.4	(77.3)
Non-traditional exports	**1,630**	**1,888**	**1,755**	**15.9**	**(7.1)**	**41.4**
1. Agricultural sector	623	650	689	4.3	6.1	(12.2)
2. Industrial sector	965	1,038	922	7.5	(11.2)	36.0
Food, beverages and tobacco	108	109	90	0.7	(17.0)	5.7
Yarns, thread and fabric	11	9	7	(21.0)	(20.1)	0.6
Garments	292	252	197	(13.8)	(21.8)	17.0
Wood and manufactured wood products	17	16	13	(7.1)	(16.8)	0.8
Base metal industry and base metals	120	171	148	42.4	(13.4)	7.0
All others	417	482	466	15.6	(3.3)	4.9
3. Mining sector	41	201	144	384.4	(28.3)	17.6

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

2 Office of Economic Studies (2007).

3 The average WTI price for the year to July went from price US$68.0/barrel in 2006 to US$63.3/barrel in 2007.

China, Pakistan, Indonesia, Cambodia, Italy and even Canada are gaining ground as suppliers of those products to the US market.

In contrast, exports to Venezuela are up by 73.1% (Table B1.3). The industrial sector accounts for most of that growth (85%). Agriculture also contributed, but less so (14.3%). The industrial sub-sectors responsible for much of the evolution in growth are the automotive industry (19.4%), garments (18.7%), the chemical industry (9.1%), and machinery and equipment (8.6%). In the agricultural sector, the demand for beef was what contributed the most (8.0%) to the increase in exports to Venezuela.

Non-traditional exports[4] to Venezuela have been the most dynamic sector. Although traditional exports to that country remain negative (in terms of the accumulated figure for the previous 12 months), they are gaining speed and have reached increasingly higher levels (Graph B1.1).

All of this has changed the composition and share of Colombian exports to our trading partners. Between 2005 and 2006, 41% of all Colombian exports, on average, went to the United States. The

Table B1.3
Exports to Venezuela

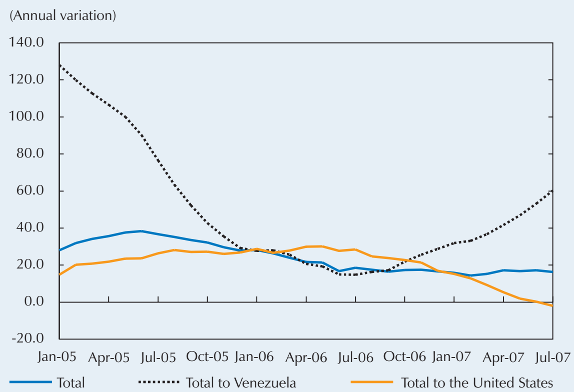
	Millions of Dollars: January-July			Annual Growth Rate: January-July		Contribution to the Variation: January-July
	2005	2006	2007	2006	2007	2007
Total exports	**1,134**	**1,329**	**2,301**	**17.2**	**73.1**	**100.0**
Traditional exports	**11**	**5**	**6**	**(53.9)**	**24.9**	**0.1**
Non-traditional exports	**1,123**	**1,324**	**2,295**	**17.9**	**73.3**	**99.9**
1. Agricultural sector	160	185	324	16.1	75.0	14.3
Fruits, vegetables and tubers	10	19	38	102.4	95.1	1.9
Beef	6	31	109	382.4	247.7	8.0
All others	144	135	177	(6.3)	31.9	4.4
2. Industrial sector	957	1,135	1,961	18.5	72.8	85.0
Food, beverages and tobacco	93	118	150	27.1	26.8	3.3
Yarns, thread and fabric	55	56	98	1.8	75.2	4.3
Garments	74	103	285	39.3	176.4	18.7
Leather and leather goods	13	17	61	28.1	256.5	4.5
Graphic arts and publishing	54	71	126	31.6	76.7	5.6
Chemical industry	183	214	303	16.7	41.5	9.1
Machinery and equipment	78	116	200	49.3	71.9	8.6
Transport material	280	280	469	(0.0)	67.5	19.4
All others	127	159	270	25.5	69.6	11.4
3. Mining sector	6	4	10	(28.4)	140.1	0.6

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

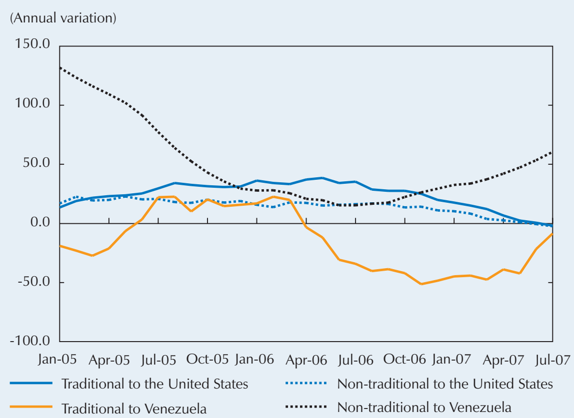
[4] As defined by the Technical and Economic Information Department of the External Sector Division at Banco de la República, non-traditional exports are those that do not include coffee, petroleum and its derivatives and coal.

Graph B1.1
Export Growth
(Accumulated Figure for 12 Months)

A. To the United States and Venezuela



B. Traditional and Non-traditional



Source: Banco de la República's calculations.

figure is 35.3% for this year, up to July. Exports to Venezuela began to accelerate in the second half of 2006[5] and account for 14.7% of the total in January-July 2007. The averages for 2005 and 2006 were 10.3% and 10.4%, respectively.

One of the elements contributing to the slowdown in exports to the United States is the general decline in its purchases. As illustrated in Table B1.4, total imports into the United States (Cost Insurance and

---

5 Less growth in exports to Venezuela throughout 2005 does not imply unusually low export levels in dollars. In fact, the recovery in exports to Venezuela during 2004 and 2005 resulted in US$135 million (m) and US$174 m in average monthly exports for those years.

Freight —CIF— prices) were off by nearly 4 pp/year between 2004 and 2006. From January to August 2007, imports increased 3.6% in relation to the amount registered for the same period in 2006. This is discreet compared to their recent historic average. The figures in Table B1.4 also confirm the drop in US imports of Colombian goods, which went from 14.4% growth in 2004 to 4.3% in 2006 and to -8.7% in January-August 2007.

Table B1.4
Growth in United States Imports, by Country of Origin
(Variation in percentage)

Country	2004	2005	2006	Jan-Aug 2007
Argentina	18.4	21.6	(13.5)	5.8
Brazil	19.9	15.3	6.9	(3.6)
Canada	14.1	12.4	5.4	1.0
Chile	25.4	37.3	38.2	(0.2)
China	29.0	23.4	17.7	14.0
Colombia	**14.4**	**21.3**	**4.3**	**(8.7)**
Costa Rica	(2.2)	2.8	13.4	3.5
Dominican Republic	1.8	1.8	(1.5)	(4.7)
Ecuador	54.8	32.5	21.8	(19.2)
Germany	13.6	9.9	4.9	5.1
Honduras	10.2	3.0	(0.7)	7.0
Japan	10.0	6.5	7.3	(1.0)
Mexico	13.0	9.3	16.3	4.0
Peru	52.1	37.9	14.1	(16.2)
Philippines	(8.7)	1.2	4.6	(5.4)
United Kingdom	8.9	9.9	4.3	4.3
Venezuela	45.6	34.1	8.8	(8.6)
All Others	17.3	12.8	11.4	2.8
Total	16.9	13.6	10.8	3.6

Source: United State International Trade Commission.

Although the general trend is towards a slowdown in United States imports, Colombian sales to that country are not among the most affected (Table B1.5). Colombia's share, which was approximately 0.52% between 2004 and 2006, has declined by 0.06 pp. compared to January-August 2006 and 2007. This is not all that different from the drop calculated for countries with a share of the US import market similar to Colombia's, such as the Philippines, Ecuador and Chile. On average, their share has declined by 0.05 pp. On the other hand, China has gained, while other relevant trading partners such as Canada, Japan and Mexico have lost ground.

As to what determines export demand, some authors have found a positive relationship between foreign sales and economic growth in the importing country. While this is not the only determinant (the real interest rate is another), different estimates for Colombia coincide in the sense that developments in the trading partner's output are all-important to demand.[6] In this respect, it is important to emphasize that

[6] J. N. Hernández (2005) estimates that industrial exports to the United States would have real exchange rate elasticity between 0.86 and 0.55, while elasticity to the GDP in the United States would be close to 6%. In the case of Venezuela, exchange rate sensitivity is greater: between 1.7 and 2.1, and income sensitivity (industrials without sugar) is approximately 3.5. In any case, a percentage variation in GDP compared to a similar variation in the real exchange rate has more of an effect on exports.

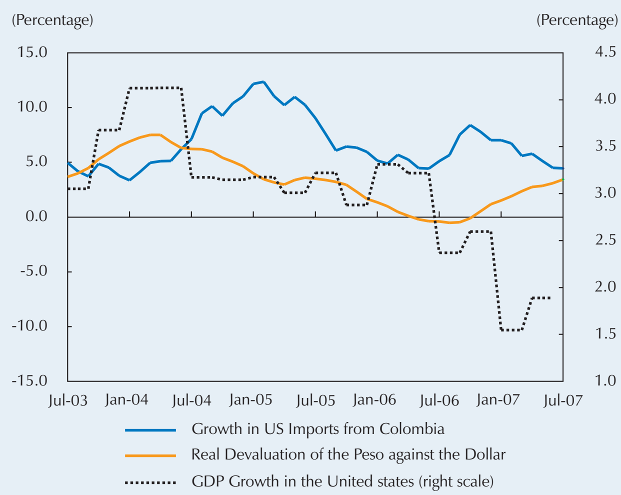
Table B1.5
Share of United States Imports, by Country
(Percentage)

Country	2004	2005	2006	Jan-Aug 2006	Jan-Aug 2007
Argentina	0.27	0.29	0.22	0.22	0.23
Brazil	1.49	1.51	1.46	1.47	1.37
Canada	17.03	16.85	16.04	16.34	15.94
Chile	0.36	0.43	0.54	0.55	0.53
China	13.80	15.00	15.93	15.01	16.51
Colombia	**0.51**	**0.54**	**0.51**	**0.55**	**0.48**
Costa Rica	0.23	0.21	0.21	0.22	0.22
Dominican Republic	0.30	0.27	0.24	0.24	0.22
Ecuador	0.31	0.36	0.39	0.40	0.31
Germany	5.19	5.02	4.75	4.79	4.86
Honduras	0.25	0.23	0.20	0.20	0.21
Japan	8.74	8.19	7.93	7.87	7.53
Mexico	10.35	9.96	10.45	10.48	10.52
Peru	0.26	0.31	0.32	0.32	0.26
Philippines	0.63	0.56	0.53	0.53	0.48
United Kingdom	3.13	3.02	2.85	2.86	2.88
Venezuela	1.73	2.04	2.00	2.12	1.87
All Others	35.45	35.22	35.42	35.83	35.58
Total	100.00	100.00	100.00	100.00	100.00

Source: United State International Trade Commission.

annual growth in the United States economy has slowed from 3.64% in 2004 to 2.2% in the first half of 2007. This last figure might explain some of the decline in Colombian exports to the United States (Graph B1.2).

Graph B1.2
Annual Variation in Real United States Imports from Colombia Compared to the Variation in the Real Exchange Rate and GDP in the United States



Note: Does not include petroleum and its by-products. The imports statistics are accumulated figures for the 12 months.
Source: Bureau of Economic Analysis (BEA) and Banco de la República's calculations.

In conclusion, the slowdown in exports to the United States in recent years is part of a global trend, some of which is explained by less economic growth in that country. In the case of Colombia, the drop in sales to the United States has been offset, in part, by more demand from the country's second most important trading partner: Venezuela.

BIBLIOGRAPHY

Hernández. J. N. "Demanda de exportaciones no tradicionales en Colombia," *Borradores de Economía,* no. 333, Banco de la República, 2005.

Colombia, Ministry of Commerce, Industry and Tourism-Office of Economic Studies, "Exportaciones de Colombia hacia los Estados Unidos," (mimeograph) 2007.

II. Financial Markets

There continues to be a great deal of uncertainty about the size and duration of the recession in the US housing market and its impact on economic growth in that country and the world.

Some indicators of international risk perception exhibited a certain amount of stability, and even declined. However, they have yet to return to the low levels registered prior to the crisis that began in August.

In Colombia, pass-through to the credit channel gained speed. The fact that deposit and lending rates increased during the third quarter to levels above those registered in the first half of the year is evidence of this, as is more moderate credit growth.

Real interest rates on deposits and loans are close to or slightly above their historic averages. The consumer rates could experience additional hikes associated with the increase in the usury rate.

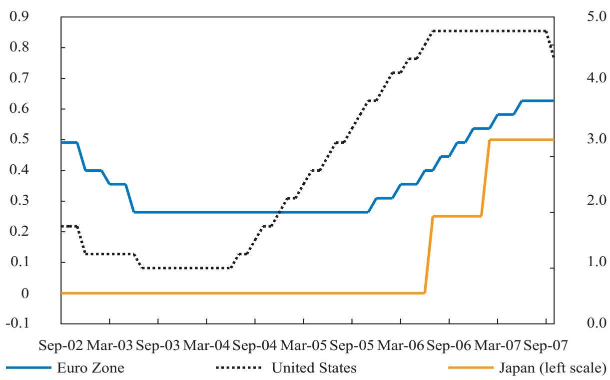
Financial depth continues to increase, as reflected in the loan portfolio/GDP ratio.

A. International Context

The deterioration in the housing market in the United States took a turn for the worse in late August, unleashing a crisis on world financial markets that worried US monetary authorities because of the effect it could have on future growth. In view of this situation, coupled with the high demand for liquidity, the Fed decided in early September to lower the interest rate at is primary credit discount window by 50 bp (5.75%). It also expanded the range of collateral securities for these operations and extended their period to thirty days. This increase in liquidity was consolidated later when the Fed lowered its benchmark interest rates by 50 bp at

Graph 18

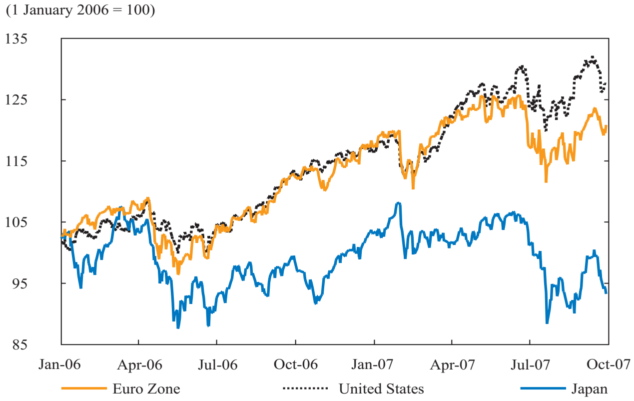
Monetary Policy Rate in the United States, the Euro Zone and Japan



Source: European Central Bank and Datastream.

Graph 19

Stock Market Indexes



Source: Datastream.

the end of the month, allowing financial conditions to ease permanently.[3] The European Central Bank (ECB) and other central banks also injected a significant amount of liquidity into the market, but without openly lowering their benchmark rates (Graph 18).

The stock market indicators recovered, thanks to this action by the Fed and other central banks. In the case of the United States, the Dow Jones Index in mid-October almost was up to what it had been prior to the crisis. However, the recovery in stock indicators in Europe and Japan as been more moderate (Graph 19). Even so, the end of the crisis still appears to be a long ways off, since financial volatility persists and the problems on the mortgage market continue to jeopardize the stability of many financial institutions the world over.

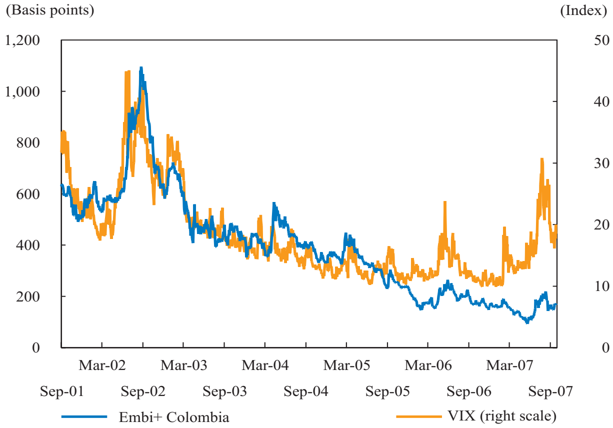
Some risk indicators demonstrated a certain amount of stability, and even declined. Yet, none have returned to the low levels seen before the crisis. The country-risk premiums and the VIX (US market volatility index) stabilized at levels slightly below those observed during the nucleus of the crisis in September. At the same time, the spread on high yield bonds in the United States stop expanding, but is still relatively high (Graph 20).

---

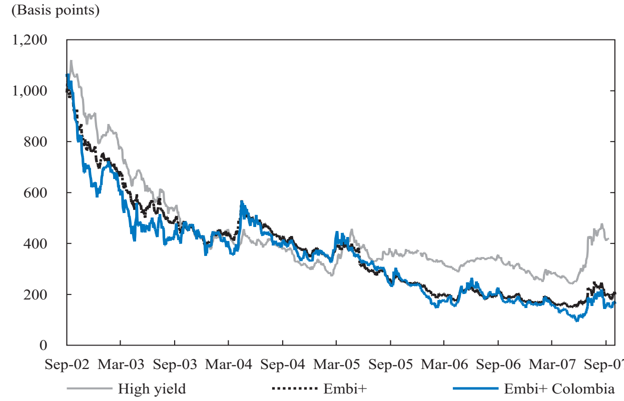
[3] At the end of October, when this report was being written, the Fed again lowered its benchmark interest rates by 25 bp, placing them at 4.5%.

Graph 20

Risk Aversion Index (VIX) and Embi+ Colombia



Embi+ and High Yield Spread

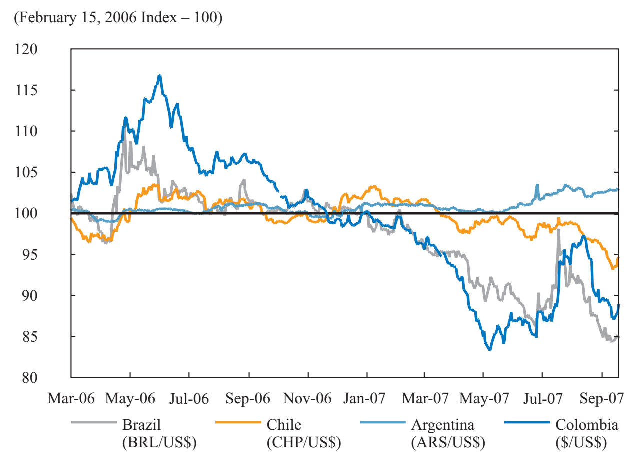


Source: Bloomberg.

The Latin American currencies experienced considerable volatility during the crisis, with Colombia being one of the countries most affected by depreciation. However, after the Fed's decision, most of the region's currencies began to appreciate once again (Graph 21). Despite the recent calm, volatility might re-emerge in the financial markets. Also, during the remainder of 2007 and in 2008, risk aversion among investors likely will remain higher than it was in the first half of the year.

Graph 21

Nominal Exchange Rate of Several Latin American Currencies against the Dollar



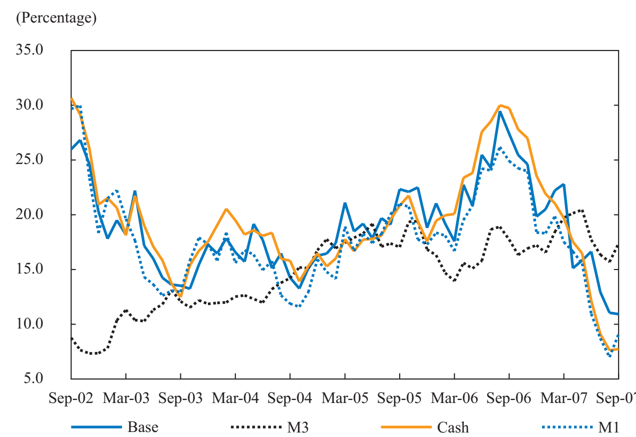
Source: Datastream.

B. Financial Markets

The increase in Banco de la República's benchmark interest rate, which totaled 325 bp between April 2006 and July 2007, coupled with the other monetary-policy measures implemented during the first half of 2007, have accelerated pass-through to the credit channel. To begin with, the third quarter saw more of an increase in nominal and real interest rates than during the first half of the year and, by September, the real rates were close to their historic averages. Credit, on the other hand, continued to see more moderate growth, although less so than in the second quarter, particularly between August and September when the annual increase in the gross loan portfolio stabilized at 27%. In contrast, there was less growth in consumer credit, even in September, but it continues to expand at high rates.

Graph 22

Annual Growth in Monetary Aggregates



Source: Banco de la República.

The final figures for September and early October show that market conditions are providing a renewed incentive to deposits. This situation could continue in the coming months, due to TES maturities and the added preference for liquid deposits, which is a seasonal phenomenon that occurs at the end of the year. The foregoing is likely, provided the international environment becomes less volatile.

1. Monetary Aggregates

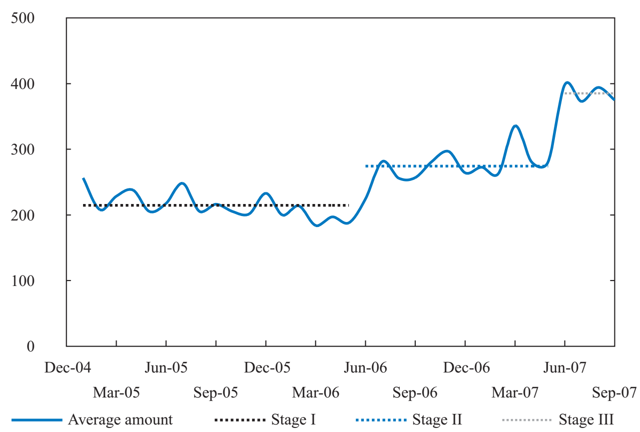
The slowdown in the main monetary aggregates since late 2006 continued during July and August, with an interruption in September (Graph 22). In the case of cash, where this trend has been more pronounced and prolonged, nominal growth fell from an annual rate of 30% in August 2006 to only 7.6% in August 2007, and was 8.1% in September 2007. Part of this limited increase in cash, which was less than nominal GDP growth, is explained by the rise in interest rates and the increase in financial transaction costs.

Liabilities subject to reserve requirements (known in Spanish by the acronym PSE), which are a M3 component that represents deposits with credit institutions, registered an annual increase of 18.9% by September, which is similar to the rate in June. In terms of value, the third-quarter increase in PSE came to Col $4.2 trillion (t), including Col$4.5 t in time deposit certificates (TDC). The other PSE were down by Col$0.3 t.

Graph 23

Average Monthly Amount in TDC

(Billions of pesos)



Source: Banco de la República.

Time deposit certificates accounted for all of the third-quarter increase in deposits, unlike the first half of the year, when their contribution was much less (45%). The recent growth in deposits of this type has been significant (Graph 23) and originates mostly with treasuries (corporate clients), which account for 75% of all new deposits. Savings deposits were the major source of funds in the first half of the year, but lost importance during the third quarter.

The growth in TDC involves a combination of factors associated with supply and demand. On the supply side, the higher marginal reserve ratio makes it more expensive to acquire funds through savings than through TDC. This has fueled the latter. On the demand side, there was no liquidity injected into the market by the government, since it made no change in its deposits with Banco de la República. Moreover, added international volatility tended to discourage the demand for local assets, at least up until August.

In the coming months, the market is likely to have more available resources, other than those provided by Banco de la República (repos). This would allow for a better balance between TDC and savings deposits. This projection is based on three factors:

- Approximately Col$5 t in TES will mature on November 9. This significant volume of resources is likely to favor more demand for savings deposits, as has been the case in the past when large amounts of TES fall due.

- The seasonal nature of the demand for deposits at the end of the year favors the preference for more liquid deposits, such as savings and checking accounts.

- The measures adopted by the central banks of the world's major economies could continue to calm the market. In these circumstances, the appeal of financial assets in emerging economies, denominated in local currency, at least should remain stable.

Another element of uncertainty with respect to PSE during the remainder of the year is how Ecopetrol will manage the huge amount of liquidity it will receive at the end of November from stock sold in September.[4]

2. Total Credit

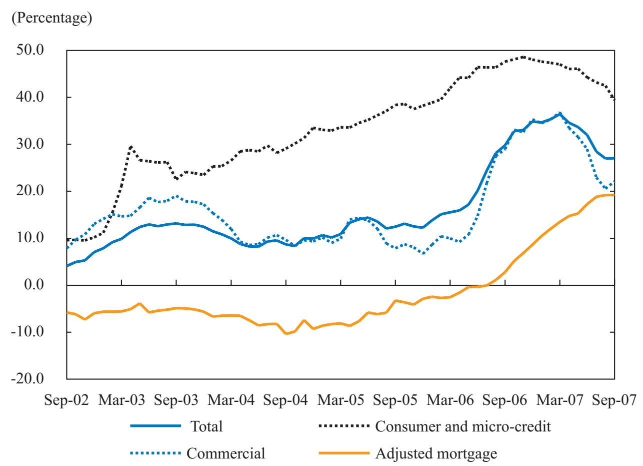
The increase in total credit began to slow in April 2007 and continued as such until August. By September, the annual increase in the loan portfolio was 27%, the same as the month before. The decline in the annual growth rate, with respect to June, was 5.0 pp (Graph 24).

The annualized monthly variations in the seasonally-adjusted gross loan portfolio series[5] and the three-month moving average for growth in the same variable indicate the moderation in credit growth was interrupted towards the end of the second quarter (Graph 25). If this situation continues, the bulk of the slowdown in credit might be over and the rest of the year could see sustained annual growth above 20%.

As indicated in earlier reports, the impetus to credit mid-way through 2006 was due largely to the fact that financial institutions moved a portion of their assets out of TES and into loans. This rebalancing strategy

Graph 24

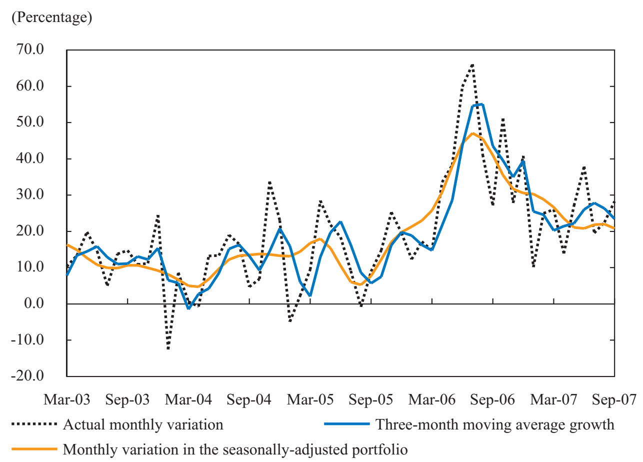
Annual Growth in the Total Gross Portfolio



Source: Banco de la República.

Graph 25

Gross Portfolio:
Monthly Variations and Moving Average



Source: Banco de la República.

4 In September, Ecopetrol sold stock equivalent to 10% of its corporate equity. The sale came to Col$5.7 t. It has received 15% of that amount. The other 85% will be paid in November and the rest in 12 identical monthly installments, with the option to pay in advance. The credit option is available only to buyers with stock packages valued under Col$70 m.

5 The gross loan portfolio was seasonally adjusted first, then the annualized monthly variation was calculated.

The financial system holds a major part of the TES scheduled to mature in November and December.

in favor of credit as opposed to investments became less important in recent months. This, in turn, led to more moderate growth in credit. However, the possibility of another boost to credit during the remainder of the year cannot be ruled out, since a good many of the TES scheduled to mature in November and December are held by banks.

This being the case, the increase in credit during the remainder of the year is likely to remain high in relation to current level of economic growth and might bring more pressure to bear on demand. As a result, financial depth (credit /GDP) will continue to recover and move even closer to the levels witnessed in the mid-nineties.

3. Credit by Type

Compared to other types of credit, the consumer loan portfolio continued to register the highest annual rate growth rate (39.4% in September), although it displays a sluggish downward tendency. After slowing in July and August, commercial loan portfolio growth rose again in September to an annual rate of 22.2%, following 20.5% in August and 29% in June. The last two months witnessed a halt in the build-up in the adjusted mortgage portfolio, and the annual increase in loans of this type stayed at 19% (Graph 24).

When analyzing the extent to which different types of credit contributed to the total flow of local currency so far this year, two periods stand out:

- The first extends to May, when consumer credit predominated, with 59.5% of the variation in total credit, followed by commercial loans (with 29.3%) and mortgage loans (with 11.2%). The total loan portfolio was up by Col$7.1 t during the first five months of the year.

- The second extends from June to September, when commercial credit gained renewed importance, accounting for 52.5% of the total variation, as was traditional in the past. Consumer and mortgage loans also contributed substantially: 38.6% and 8.9%, respectively. The increase in total credit during this period came to Col$7.9 t.

In conclusion, a look at household loans, defined as the sum of consumer and mortgage loans, shows a decline between the first and second periods from 70.7% to 47.5% in its share of the new portfolio placed on the market.

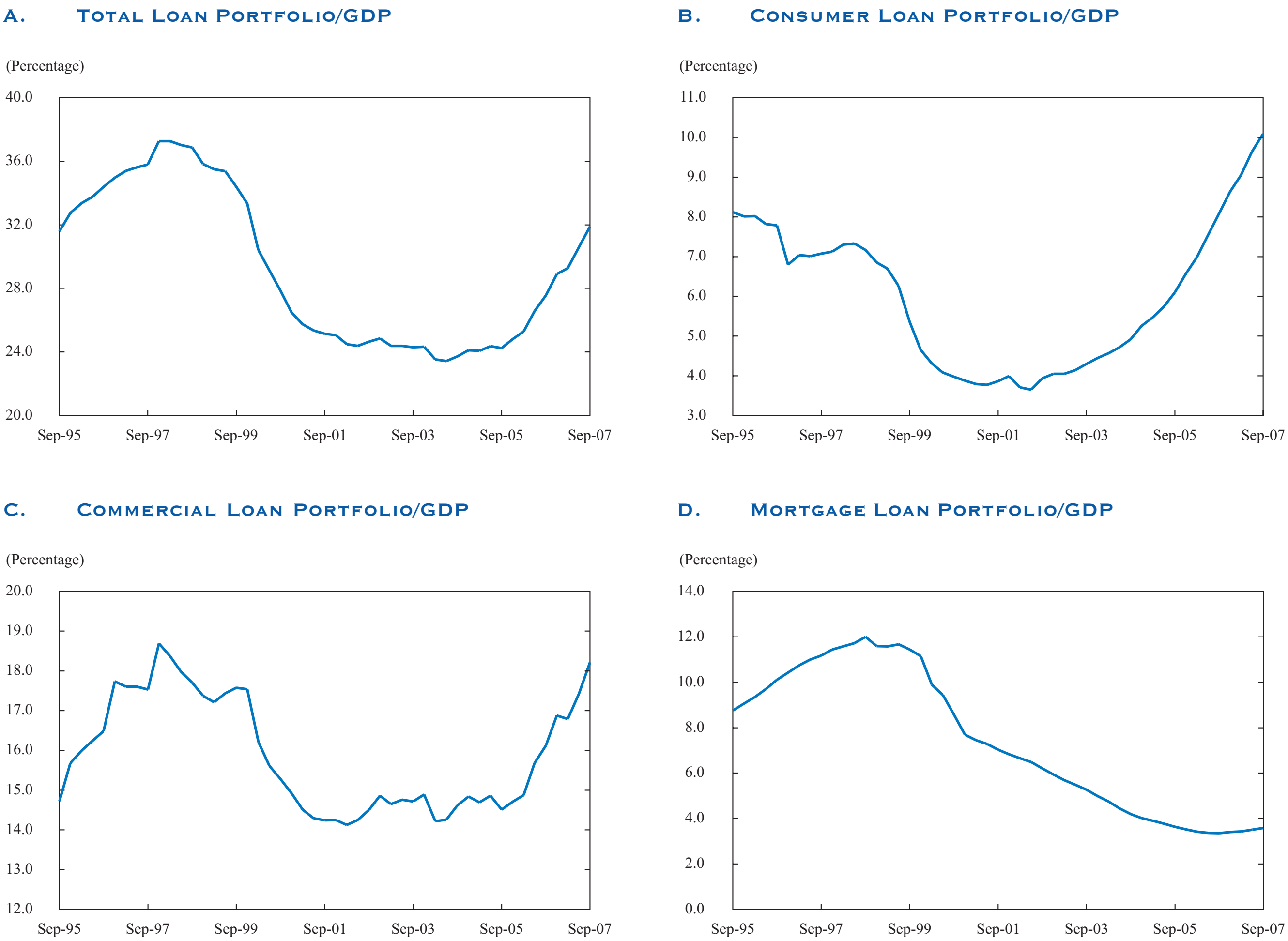
Growth in the consumer loan portfolio has slowed, but is still high. aún crece a tasas altas,

Moreover, the indicators of financial depth, measured as the loan portfolio divided by GDP, show consumer and commercial loans are at historically high rates, while the mortgage portfolio remains at low levels (Graph 26).

Finally, an important aspect highlighted in the most recent edition of the *Financial*

Graph 26

Loan Portfolio /GDP (Quarterly)



Source: Banco de la República.

Stability Report is the deterioration in loan-portfolio quality that has begun to accompany the growth in consumer credit. A look at the non-performing portfolio and the portfolio at risk, as a percentage of the total consumer loan portfolio, shows both have increased by 1 pp to 2 pp so far this year.

4. Interest Rates

Between April 26, 2006 when the benchmark interest rate hikes began and July 27, 2007, the Board of Directors of Banco de la República made thirteen adjustments, 25 bp on each occasion, for a cumulative increase of 325 bp. Since then and until the beginning of October, there have been no new increases. The interbank rate (TIB) stayed quite close to the repo rates during the third quarter and was 9.24% in September.

The increases in the repo rate, coupled with the other monetary-policy measures implemented during the first half of the year, contributed to higher increases in nominal lending and deposit rates between June and September compared to those registered in the second quarter. This means the rate pass-through mechanism was more expedient, as anticipated in the June report.

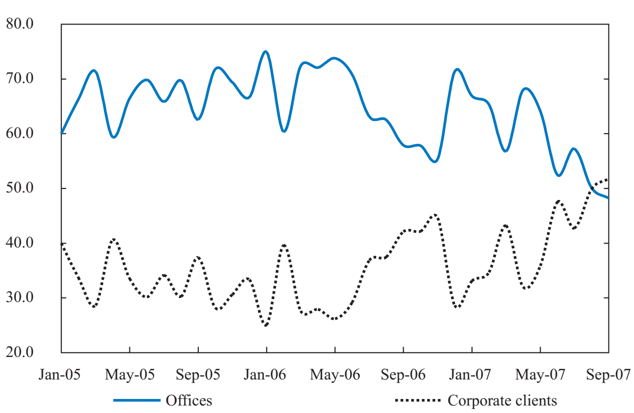
The rise in rates during the quarter was particularly swift in the case of credit, broadening the margin with respect to interest rates on deposits. The aggregate lending rate[6] was 151 bp higher, registering the most increase in one quarter since the bid to normalize monetary policy began. The interest rate on time deposit certificates (TDC) was up by 72 bp during the same period, which is the second largest increase since April of last year.

Part of the rise in TDC rates by September (9.1%) is due to a shift in the origin of deposits. As mentioned, deposits from corporate clients (treasury) gained importance, so much so that by September they surpassed those made through the office network. This tends to increase the average TDC interest rate, as the spread between these two origins has grown. In September, the interest rate on treasuries was 200 bp higher than what the office network was offering (Graph 27). However, this tendency began to reverse in the early weeks of October, which would cause a slight decline in the TDC rate measured according to the DTF (fixed-term deposit rate). At that point, the interest rates offered to the different client segments had not changed.

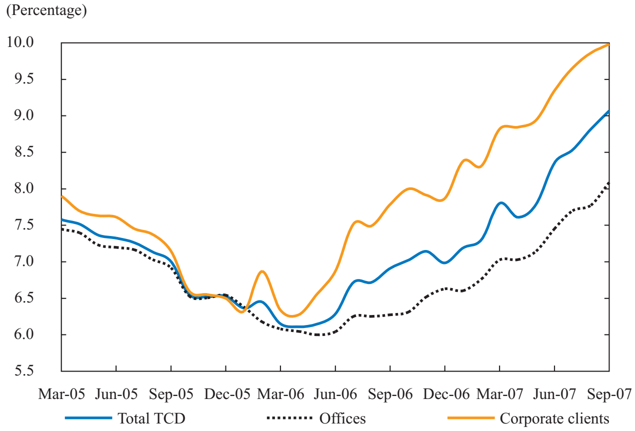
As to the different types of credit, the increase in consumer loan rates was especially prominent: 249 bp in the quarter and 36 bp in September, followed by the rate on preferential loans, which was up by 139 bp and 35 bp, in that order. The rise in rates on ordinary loans during the quarter was less (75 bp) and concentrated mostly in September (43 bp). The mortgage loan rate showed the least increase during the quarter (35 bp) and dropped 6 bp in September (Table 8).

Graph 27

Time Deposit Certificates: Monthly Office and Corporate Client Share



Total Monthly TDC Rate: Offices and Corporate Clients



Source: Banco de la República's calculations.

[6] The method used by Banco de la República includes the rates on consumer, ordinary, preferential and treasury loans. Because they have more turnover, the weight of treasury loans is reduced to 1/5 of its total.

Table 8

Nominal Interest Rates

	Apr-06	Dec-06	Jun-07	Sep-07	Variation		
					Monthly	Quarterly	Apr-06 to Sep-07
Savings Rates							
Ordinary Savings	3.60	3.92	4.62	4.93	0.19	0.31	1.33
CDT	6.15	6.98	8.35	9.07	0.25	0.72	2.92
DTF	5.93	6.75	8.02	8.89	0.35	0.87	2.96
Lending Rates							
BR lending rate	12.94	13.04	15.33	16.84	0.42	1.51	3.91
Consumer	21.14	19.57	21.85	24.34	0.36	2.49	3.20
Ordinary	15.36	14.24	16.88	17.63	0.43	0.75	2.26
Mortgage	13.88	13.02	15.26	15.61	(0.06)	0.35	1.73
Preferential	8.73	10.22	12.29	13.68	0.35	1.39	4.95
Treasury	7.68	9.58	11.77	12.76	0.09	0.99	5.08
TIB	5.89	7.36	8.83	9.25	0.01	0.42	3.36
Repo auction	6.00	7.36	8.87	9.25	0.00	0.38	3.25
Usury rate	25.13	22.61	25.12	28.51	0.00	3.39	3.39

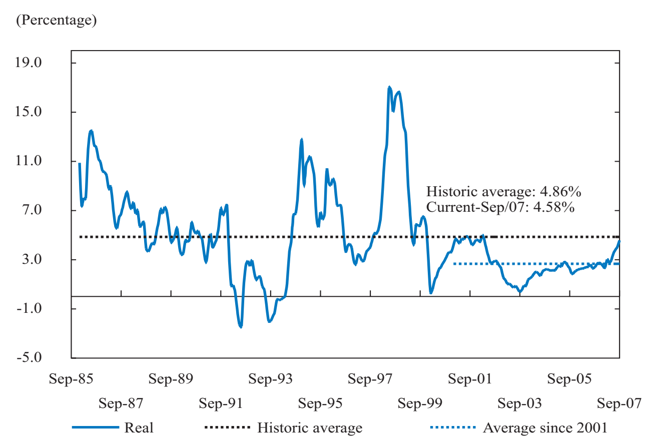
Source: Banco de la República.

The combined effect of higher nominal rates and less inflation produced a clear rise in real rates throughout the third quarter. At September, the DTF was 4.6% and the average lending rate, 12.2%. Respectively, these rates are only 28 bp and 36 bp away from their historic averages (calculated since the mid-1980s) and surpass the average for the current decade by 191 bp and 252 bp, respectively (Graph 28).

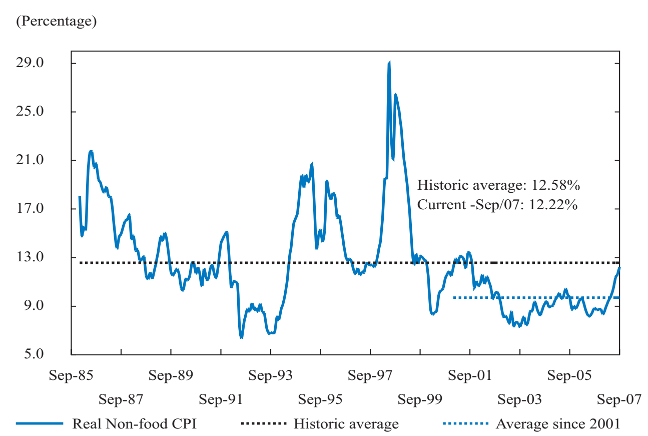
An analysis by type of credit shows real interest rates (non-food CPI deflated) on preferential and treasury loans were 9.2% and 8.3% in September. This is above the historic averages (126 bp and 141 bp).[7] Interest on commercial credit was 13.0%, which also is slightly higher than average. Only the real rate on consumer credit (19.4%) is below the historic average, although it now equals the average for the present decade. However, the real consumer interest rate could feasibly

Graph 28

Real DTF Interest Rate (Non-food CPI)



Real Lending Interest Rate (Non-food CPI)



Source: Banco de la República's calculations.

7 The historic average has been calculated since March 1998, when data began to be classified according to the different types of loans (i.e., treasury, preferential, ordinary and consumer).

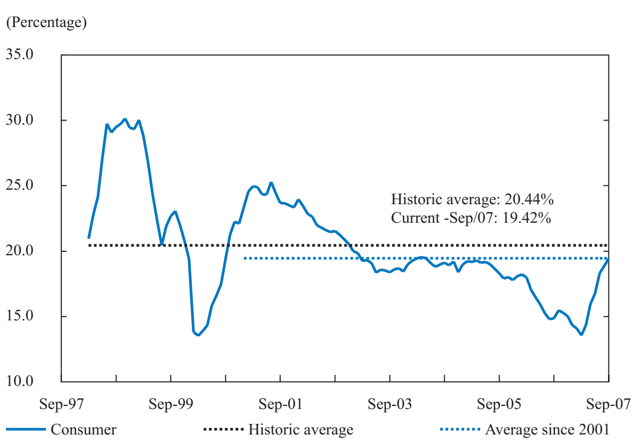
equal or surpass the historic average in the coming months, given the recent increase in the usury ceiling (Graph 29).

In conclusion, lending and deposit rates might already reflect much of the combined impact of benchmark interest rate hikes and the other monetary-policy measures adopted during the first half of the year. As a result, the coming months are not expected to see a major increase in real interest rates (non-food CPI deflated). The rate on consumer loans could rise, given the increase in the usury rate and the close relationship between the two.

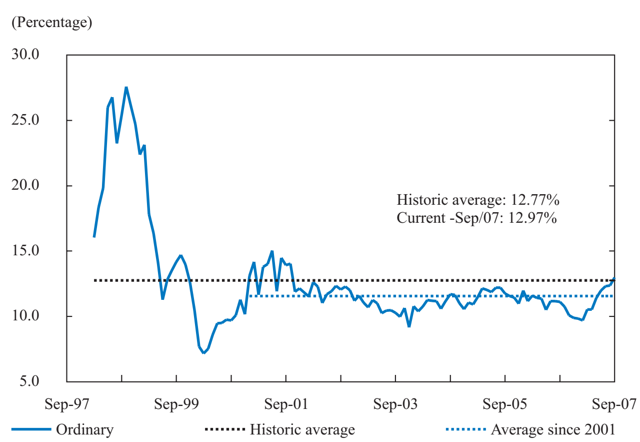
Graph 29

Real Interest Rates a/

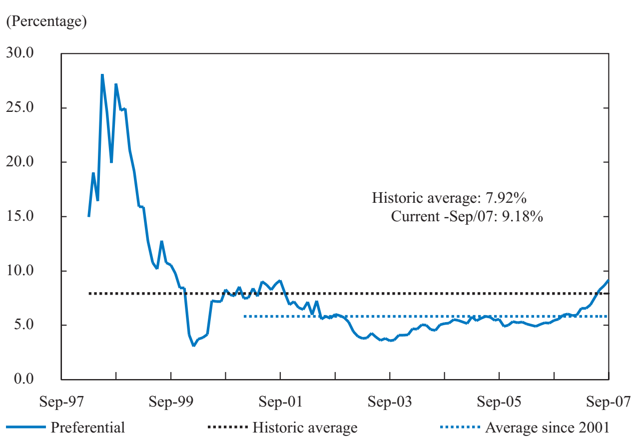
A. Consumer



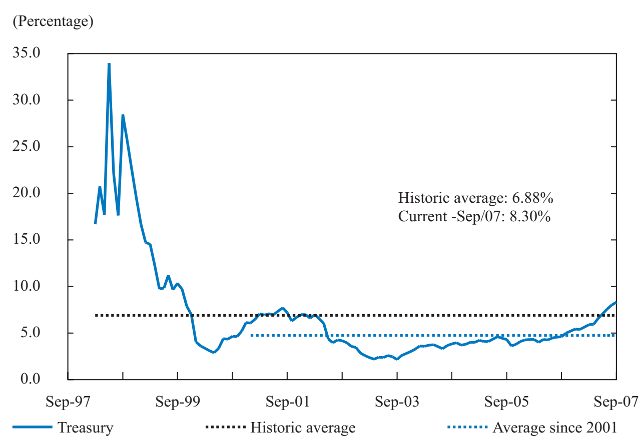
B. Ordinary



C. Preferential



D. Treasury



a/ Non-food CPI deflated series.
Source: Banco de la República.

III. Macroeconomic Prospects

How the external situation will develop and its affect on the Colombian economy remain uncertain. This report is based on the assumption that the crisis in financial markets will have few repercussions for terms of trade and capital flows.

Growth in Colombia is expected to ease during the second half of the year and in 2008. The economy is headed for a soft landing, which will make it possible to contain inflation pressures. Even so, economic growth in 2007 is expected to be similar to what it was in 2006, but with more of a contribution from private consumption.

Core inflation in 2007, measured on the basis of non-food inflation, will fall within the target range. Inflation in 2008 is expected to converge towards the long-term targets. The country's monetary policy will help to reduce demand-pulled pressures.

In 2008, some upward pressure might be brought to bear as a result of international oil and food prices. Inflation expectations are still a risk to future price stability.

A. The International Context

The financial crisis unleashed in the third quarter, coupled with less growth in the US economy since mid-2006, has yet to exert a negative impact on the pace of world economic activity. The euro zone and Japan continued to grow at a solid pace, although less so than during the first half of the year, while the emerging economies maintained an important degree of momentum, led by China and India. Commodity prices surged in recent months, particularly oil. This situation increases the risk of rising world inflation in the future.

A slowdown in the US economy during the coming quarters is expected.

A slowdown in the US economy is expected during the next few quarters.[8] The latest indicators still show a great deal of deterioration in the housing market. The changes in building permits, the start of new home construction and sales remain negative, and mortgage payment defaults continue to increase. Moreover, less demand for housing could cause prices to go even lower. This would have an important impact on household wealth and, ultimately, on consumption. In this respect, household consumption is expected to be more moderate, but to remain in positive terrain. All of this suggests the housing market would have a negative effect on growth in the United States during the next 12 months. External demand, which has been building in recent months, thanks to a weaker dollar compared to most currencies, is one factor that might partially offset this trend. In view of the foregoing, growth is expected to be 2.0% this year and 2.4% in 2008 (according to *Consensus Forecast*), which is less than the forecast three months ago (Table 9).

[8] Preliminary figures on growth during the third quarter (3.9% annualized quarterly) were announced at the time this report was written. This was above what the market expected. Nevertheless, residential investment slowed more than in previous quarters, which could jeopardize future economic growth in the United States.

TABLE 9

GROWTH FORECASTS FOR MAJOR TRADING PARTNERS
(PERCENTAGE)

	Actual 2006	Forecasts for			
		2007 to:		2008 to:	
		Oct-07	Jul-07	Oct-07	Jul-07
Major Partners					
United States (Consensus)	3.3	2.0	2.1	2.4	2.9
United States (Bop)	3.3	1.9	2.2	2.0	2.8
Euro Zone	2.7	2.6	2.7	2.2	2.3
Ecuador	4.5	2.4	3.3	2.4	3.0
Venezuela	9.8	8.2	7.0	4.5	3.8
Other Partners					
Japan	2.4	2.3	2.3	2.1	2.2
China	10.5	11.3	10.4	10.6	9.8
Peru	7.2	7.5	7.0	6.4	5.9
Mexico	4.7	2.9	3.1	3.4	3.6
Chile	4.3	5.9	5.7	5.2	5.2
Argentina	8.4	7.6	7.6	5.4	5.8
Brazil	2.8	4.8	4.2	4.5	4.2
Bolivia	4.1	4.3	4.5	4.3	4.1
Developed countries	3.1	2.1	2.2	2.3	2.8
Developing countries	7.0	6.0	5.6	4.4	4.2
Total Trading Partners	**4.6**	**3.6**	**3.6**	**3.2**	**3.3**

Source: Datastream-Consensus.

Japan and the euro zone will see continued economic growth during 2008, but not as much as in 2007.

The latest indicators of consumer confidence and business expectations for the euro zone suggest growth will remain healthy, but less than what it was during the early quarters. [9] Accordingly, the growth forecasts are 2.6% for 2007 and 2.2% for 2008. These are akin to the projections in the June report. Japan is in a similar situation, with 2.3% growth estimated for this year and 2.1% for the next (Table 9). The second-quarter setback in that country (-1.2% annualized quarterly growth) is attributed to temporary factors that should not reoccur during the second half of the year. Even so, the risk of less growth in both economies is higher in this report, given actual and expected appreciation in the yen and the euro against the dollar, coupled with the possible slowdown in the US economy.

As indicated in Chapter II, the recent volatility seen on financial markets and the dangers it poses for economic stability in the United States and other developed countries prompted monetary authorities in those countries to lower interest rates by 50 bp. The expectation in this report is that the Fed will reduce its interest rates just once more this year.[10] In the euro zone, no hikes in the central bank's benchmark rate are expected, despite the recent surge in inflation; even Japan is expected to see no increases in its benchmark rate. The market rates (Libor) in those economies are now higher than before the crisis in August and September, which is why the monetary-policy effort tends to be less.

The emerging economies, led by China and India, continued to fuel world growth during the third quarter. China's economic performance, in particular, has exceeded the market's expectations, despite a string of measures to lower liquidity and control inflation. Economic growth in that country during the third quarter was 11.5% and it is expected to continue as such during the months ahead. As a result, the forecast for growth is 11.3% this year and 10.6% for the next. China's monetary authorities likely will continue to raise interest rates in response to recent inflation pressures, which have been strong.

The outlook for the Latin American economies remains promising. The projections for economic growth in Brazil, Chile and Peru are better than they were three months ago. However, the performance of Colombia's three most important trading partners is less clear. The forecast for Venezuela is 8.2% growth this year and slightly less in 2008. The projections for Ecuador were revised downward due to recent reductions in its government spending, private investment and exports.

---

9 The euro zone saw 1.4% growth in the second quarter.

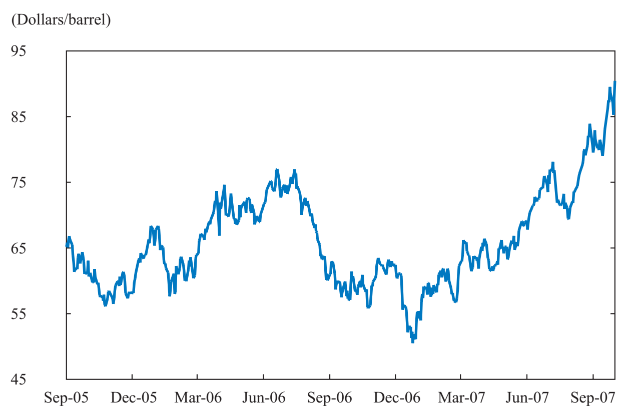
10 At the time this report was written, the Fed decided to lower its benchmark rate to 4.5%. This amounts to another 25 bp reduction.

The risk of less growth in the Venezuelan and Ecuadorian economies in the years ahead is not insignificant, as they depend on oil prices.

The strength of world demand, coupled with a variety of supply problems, has pushed commodity prices to historic levels. The clearest example is oil, which was over US$90 per barrel at mid-October (Graph 30). Although the Organization of Petroleum Exporting Countries (OPEC) recently announced it would increase the supply, these additional efforts have no more than a limited effect on prices, since surplus production capacity is down. This makes the market more vulnerable to geo-political problems, such as the recent conflict between Iraq and Turkey.

Graph 30

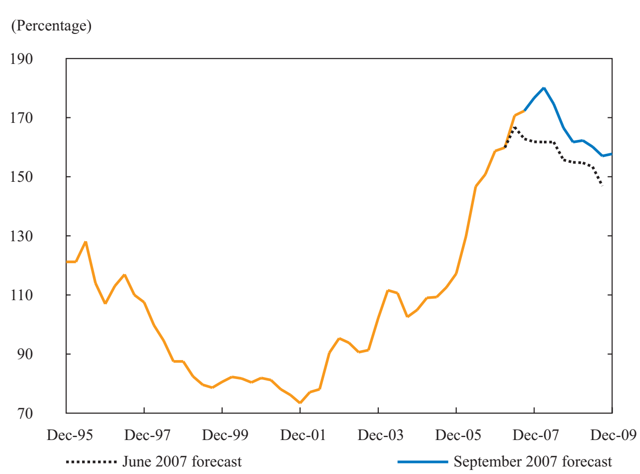
Price of Oil (WTI) on the New York Stock Exchange



Source: Bloomberg.

Graph 31

Total Commodity Price Index without Oil (WCF)



Source: The Economist Intelligence Unit.

Given these circumstances, the forecasts for oil prices are higher than they were in the third quarter. In this report, the average price forecast for West Texas Intermediate (WTI) is US$70 per barrel in 2007 and US$74.8 in 2008. In the June report, the forecasts for the average in 2007 and 2008 were US$66 and US$67.8. However, soaring oil prices in the first three weeks of October could foreshadow higher levels for the rest of the year and in 2008.

The forecasts for other commodity prices also increased substantially with respect to three months ago. According to The Economist Intelligence Unit (EIU), commodity prices, without energy, would be up by 15.9% in 2007, with a slightly more pronounced drop by the end of 2008 (Graph 31). Food prices in 2007 would be around 15%, with an additional increase of 3% during 2008.

In the case of Colombia's leading exports, the predictions for this year and the next are up considerably, above all in the case of coffee and oil (Table 10).

To sum it up, in our central scenario we are improving the forecasts for terms of trade compared to the June report and maintaining the expectation for world demand, which remains strong. All of this is in the context of a more lax monetary policy

International Prices

	2005	2006	Current Forecast a/		Previous Forecast b/	
			2007	2008	2007	2008
Coffee (ex dock) (dollars/pound)	1.2	1.2	1.2	1.0	1.2	0.9
Oil (dollars/barrel)	49.8	58.3	59.0	68.3	54.1	61.4
Coal (dollars/ton)	47.8	48.0	53.2	50.5	51.5	49.1
Ferronickel (dollars/pound)	2.4	3.6	6.0	4.3	6.6	4.3
Gold (dollars/troy ounce)	445.0	604.6	658.3	685.3	655.3	690.3

a/ Estimated balance of payments at September 2007.
b/ Estimated balance of payments at July 2007.
Source: Banco de la República.

on the part of the Fed; that is, with lower interest rates. Although the financial turbulence that battered the world markets in September is not expected to be overcome quickly, it should not reduce world growth significantly or that of our major trading partners. At any rate, the financial markets are expected to face a more uncertain scenario; accordingly, the country-risk premiums and other indicators of risk aversion will be relatively high compared to the recent past. Even so, no major changes in long-term capital flows to the emerging economies, including Colombia, are anticipated.

The central scenario shows an increase in risks compared to past reports. The main one is the possibility of a weaker economy in the United States as a result of the financial crisis in that country. Some analysts believe the likelihood of this scenario is between 20% and 50%, which would imply more of a reduction in the forecasts for world growth and terms of trade, plus an additional increase in risk premiums. A second threat is less-than-expected Venezuelan demand for Colombian export products if, among other reasons, oil prices unwind and/or the bolivar depreciates against the peso. This risk is becoming increasingly apparent, given Venezuela's growing share of our international trade.

B. Balance of Payments in 2007

This report shows a better external context for Colombia, due to higher international prices for its basic exports and higher growth forecasts for its major trading partners in 2007. Both these factors affect the predictions for the major items in the balance of payments. Accordingly, the current account deficit this year is expected to be US$6.703 m (3.9% of annual GDP), which is slightly less than the estimate in June (US$6.610 m, which was equivalent to 4% of the previous figure for GDP).

The forecasts for terms of trade and economic growth for Colombia's major trading partners were revised for 2007.

The export income forecast for 2007 increased.

Despite less demand in the United States, the forecasts for Colombian exports in dollars, compared to the estimate in June, were boosted by better terms of trade and more demand for Colombian products in Venezuela. As the same time, the pace of growth in imports in dollars is expected to slow during the second half of the year in connection with less expected growth in local demand (discussed later in this report).

As to the capital account, international investor confidence in good Colombian economic performance allows for the assumption that income from foreign resources in the form of direct investment to finance projects or to purchase companies would equal or surpass the amounts seen last year and would continue to be the country's main source of external financing.

C. Internal Growth

1. GDP Forecast for 2007

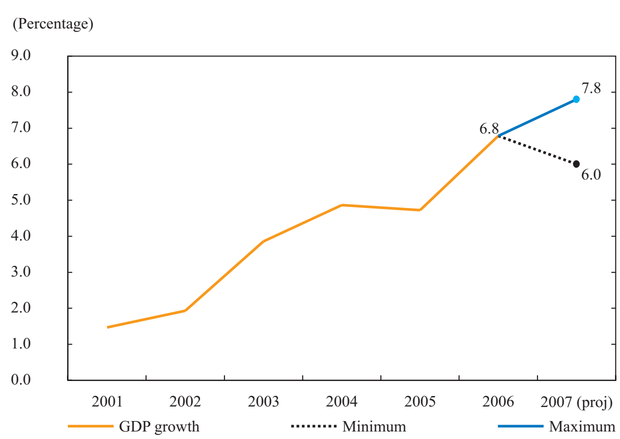
As mentioned in earlier sections of this report, external and internal conditions continue to favor good economic performance in Colombia during the second half of the year. Terms of trade, in particular, remain high and are still growing. Also, the Venezuelan economy continues to demand a huge portion of Colombia's non-traditional exports. In addition, employment has improved and credit continues to grow despite higher interest rates and less of an increase in disbursements.

Even so, this report predicts the moderate growth registered in the second quarter will continue during the rest of the year in response to the cumulative increase in interest rates and to the other measures adopted by the Board of Directors of Banco de la República. The assumption in the central scenario is that growth in 2007 will be somewhere between 6.0% and 7.8% (Graph 32), which is slightly higher than the range contemplated in the June report (5.8% a 7.7%).

Table 11 contains the GDP breakdown on the demand side, with a growth rate of 6.7%. The forecasts show that private consumption, with 7.5% growth, led the country's economic activity in 2007. The expected figure for all of 2007 implies a slight dip in consumption that amounts to 8% in the first half of the year and 7% in the second.

Graph 32

Real Annual GDP Growth



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

Table 11

Real Annual GDP Growth by Expenditure Type (Percentage)

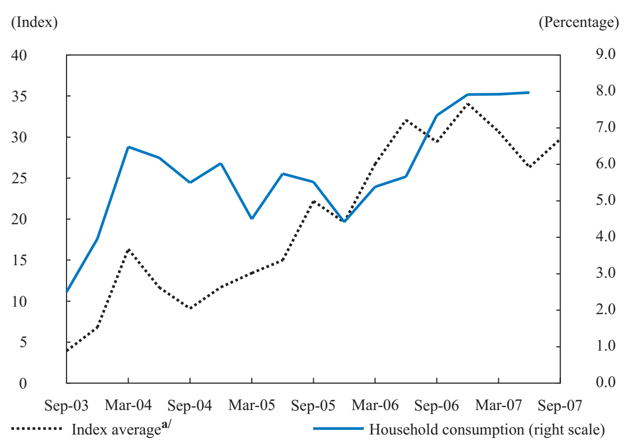
	2003	2004	2005	2006	2007 (proj)
End consumption	**1.7**	**4.8**	**4.9**	**5.5**	**6.1**
Households	2.4	6.0	5.0	6.6	7.5
Government	(0.3)	1.1	4.3	2.1	1.5
Gross capital formation	**14.7**	**15.6**	**18.7**	**26.8**	**22.6**
Gross fixed capital formation (GFCF)	15.4	15.0	18.9	18.1	19.5
GFCF without civil works	15.9	22.0	16.7	18.4	19.0
Civil works	14.0	(7.9)	28.7	17.2	21.6
Domestic demand	**3.7**	**6.6**	**7.4**	**9.8**	**9.9**
Total exports	**5.7**	**10.0**	**7.0**	**7.8**	**5.1**
Total imports	**4.7**	**19.8**	**19.9**	**20.8**	**18.2**
GDP	**3.9**	**4.9**	**4.7**	**6.8**	**6.7**

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

There are several reasons why private consumption should remain strong during the second half of 2007. The Fedesarrollo consumer confidence indicator was high and stable from mid-2006 to September 2007. The downturn in the second quarter appears to have been temporary (Graph 33). Moreover, the growth in household consumption has been accompanied by a sizeable increase in durable and semi-durables goods consumption, partly because the decline in international prices and the behavior of the exchange rate have made these products relatively less expensive. This trend is expected to continue for the rest of the year. Accordingly, pace of growth in consumption is expected to be favorable.

Graph 33

Household Consumption and the Fedesarrollo Consumer Survey

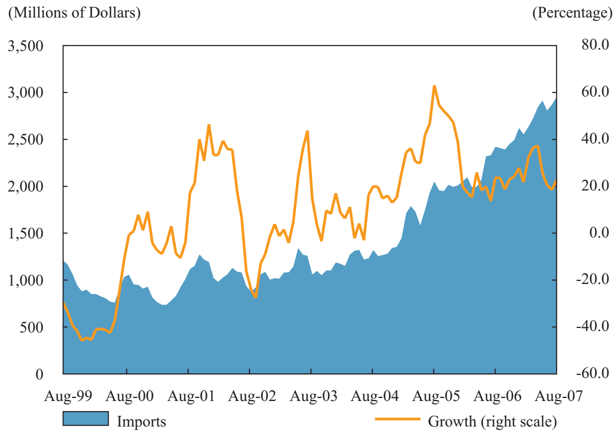


a/ verage of the Fedesarrollo Consumer Indexes, which includes the Consumer Confidence Index (CCI), the Consumption Expectation Index (CEI) and Index of Economic Conditions (IEC).
Source: Fedesarrollo; Banco de la República's calculations.

According to the forecasts, investment will continue to be a driving force of economic growth in 2007, despite the second-quarter slowdown. A detailed analysis of the leading indicators of this expenditure shows some moderation in growth during the third quarter, primarily with respect to investment in machinery and equipment. Imports of capital goods, in particular, reflect annual growth in the third quarter at around 23%, in dollars. This is less than the increase reported for the first half of the year (37%) (Graph 34). Consequently, for all of 2007, the increase in gross fixed capital formation (GFCF)

Graph 34

Capital Goods Imports
(Last Three Months)



Source: DANE.

is expected to be 19.5%. This is below the figure registered in the first half of the year, indicating a slowdown for the second half (Table 11). Even so, the rate of investment in Colombia during 2007 will be quite high, rounding out five consecutive years of growth above 15%, which has raised the investment/GDP ratio to historically high levels.

The momentum in imports is linked closely to the trend in consumption and investment. Consequently, the remainder of the year is expected to see considerable import growth, although less than during the first half. An increase of 18.2% in imports is forecast for 2007 as a whole (Table 11). The slowdown is related to the more moderate growth anticipated for consumption and investment.

As to exports, although the forecast in dollars was revised upward, estimated growth during 2007, in real pesos, was reduced. The second-quarter performance of this last variable was less than expected, mainly because of weaker US demand and the effect of exchange-rate appreciation on service exports (primarily tourism). Consequently, the projection for all of 2007 is 5.1%, which is less than the figure registered in 2006 (7.8%).

In short, compared to the June report, growth forecasts for 2007 did not change much on the whole, although a slight upward bias has emerged due to the strength of private consumption on the demand side and the momentum in sectors such as industry, commerce and transport, on the supply side. The current forecasts still point to less growth as of the third quarter and more of a contribution from private consumption than from exports.

2. GDP Forecast for 2008

Included in this report, for the first time, are exercises to simulate economic growth in 2008. They were done with a multi-sector general equilibrium model. The results depend largely on the external scenarios and the balance of payments that were taken into account. According to the model, the Colombian economy can continue to grow next year, although not as much. This would allow for a soft landing.

These forecasts are supported by several main assumptions. 1) International prices for coffee and mining products are expected to decline by 15% and

10%, respectively, while the forecast for oil prices on the world market (reference for Colombia) is 16% higher. 2) On the external front, world inflation is expected to be 5%, which is more moderate than in 2007, while the real rate of world economic growth and that of our major trading partners is expected to be 3.4% and 3.9%, respectively. This is slightly lower than the figures anticipated for 2007. 3) Oil extraction is expected to increase by 1.4% and all other mining production, by 5.5%. 4) Coffee production should be up by 3.1%. 5) Remittances from workers would rise 8.3% in dollars, which is consistent with less growth in the US economy. 6) A real increase of 6.1% in government spending and 13.6% in government investments is anticipated as well.

Growth is expected to be less in 2008 than in 2007.

Given these assumptions, GDP growth during 2008 could range from 4.5% to 6.5%, which would imply moderation compared to the forecast for 2007 and the figure in 2006. This reduction in momentum is due primarily to external conditions that are not expected to be as favorable in 2008, especially because of less growth worldwide and the normalization of monetary conditions, thanks to the measures adopted by the Board of Directors of Banco de la República as of mid-2006.

D. Inflation Forecasts

1. Forecasts

The following are the inflation forecasts for the next eight quarters, given a scenario based largely on the assumptions outlined in earlier sections of this report. The central forecast contemplates an active monetary policy adjusted to ensure that inflation converges towards the long-term target set by the Board of Directors (between 3% and 4%).

The inflation forecast for the end of 2007 was revised downward for this report, compared to the June edition. At present, total consumer inflation is expected to end the year at 5%; the previous forecast was 5.3% (Table 12). The reductions were concentrated in food and tradable inflation, excluding food and regulated prices. In contrast, the forecast for regulated price inflation increased, while the non-tradable inflation forecasts remained unchanged. According to these predictions, non-food inflation, which is a core inflation indicator, should end 2007 at 4.2%. This is slightly less than the rate expected three months ago (4.3%) and within the target range set by the Board of Directors (from 3.5% to 4.5%)(Table 12).

Food was responsible for the bulk of the reduction in the forecasts for December 2007 (Table 12). The September figures were lower than anticipated in the last

The inflation forecast for 2007 was reduced.

Table 12

Central Model Forecasts (TMM) a/
(Percentage)

	Total Inflation	Food Inflation	Non-food Inflation				Output Gap
			Total	Non-tradables	Tradables	Regulated	
Mar-07	5.8	8.9	4.4	4.9	2.0	7.5	2.7
Jun-07	6.0	9.6	4.4	5.1	1.8	7.5	2.9
Sep-07	5.0	7.0	4.1	5.6	1.2	5.9	2.6
Dec-07	5.0	6.8	4.2	5.4	1.4	6.1	2.4
Mar-08	4.5	5.0	4.3	5.4	1.2	6.9	2.0
Jun-08	4.2	4.2	4.2	5.4	1.2	7.1	1.4
Sep-08	4.4	5.0	4.1	5.3	1.4	6.0	0.7
Dec-08	4.3	4.9	4.0	5.0	1.7	5.9	0.1
Mar-09	4.0	4.2	3.9	4.9	2.2	4.8	(0.3)
Jun-09	3.9	3.9	3.9	4.6	2.7	4.4	(0.7)
Sep-09	3.9	3.9	3.9	4.3	3.1	4.7	(0.9)

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

report, thanks to better than expected behavior in prices for perishables and meat and meat substitutes. The overestimate occurred despite several recent price hikes for a number of processed foods (especially imported ones), due to international price surges. Accordingly, Banco de la República's models reduced their short-term forecasts and now point to another reduction in food inflation during the next three months. However, it would be small compared to the levels reached in the third quarter. This being the case, food inflation would end 2007 at 6.8%, as opposed to 7.7% forecast earlier. The effects of El Niño weather subsided in the third quarter, and no upward pressure from supply shocks is expected in the fourth quarter.

Other factors that helped to reduce the forecasts for the rest of 2007 were appreciation in the exchange rate during the third quarter and its impact on the price of tradable goods, which was more than expected. Between June and September, both these factors lowered tradable inflation (excluding food and regulated prices) more than expected, causing a reduction in the year-end forecasts as well. For this group, the prediction in this report is 1.4% inflation in December compared to 1.7% forecast three months ago (Table 12).

A temporary rise in inflation during October cannot be ruled out.

No reduction in consumer inflation is anticipated for the next three months compared to the outcome registered in September. For statistical reasons, the Bank's models indicate annual inflation hit a base with the results for the third quarter and, consequently, should remain near 5% until the end of the year. This, however, does not rule out a temporary rise in October, also for statistical reasons, particularly in non-food inflation. In 2008, inflation will remain subject to upward pressures originating with fuel prices and external food prices.

The regulated price inflation forecasts increased for 2008.

- Fuel prices for next year were revised upward in this report, considering the higher oil forecasts. The predictions for public transportation and services also were increased for the same reason, which means expected inflation in regulated prices throughout 2008 is approximately 100 bp higher than the forecast in the June report. As a result, regulated price inflation would be above 6% every month, but with a downward drift. (Table 12).

- Food inflation also will be up next year, responding to international price hikes in recent months and their impact on imported and processed foods. However, the assumption in this report is that external prices have reached a maximum point and will return slowly to their historic averages as of 2008. As to foods affected by external demand, no readjustments much above the Bank's targets are foreseen. Food inflation should ease during the first half of the year because of the normal price cycle for perishables, but will tend to rise during the second (Table 12). The forecasts do not contemplate supply shocks in 2008.

These upward trends will be offset, for the most part, by very low tradable inflation (excluding food and regulated prices), given the absence of permanent pressure for depreciation in the exchange rate during the remainder of 2007 and in 2008, and because of favorable prices for imported industrial products (Table 12). As a result of these factors, inflation in this basket of goods was revised downward with respect to the June report.

The new predictions assume less demand-pulled inflation pressure in 2008, since non-tradable inflation (excluding food and regulated prices) is expected to remain stable at around 5.4% during the first half of the year and to decline slowly during the second. This tendency implies a slowdown in GDP growth as of the second half of 2007 and during 2008, towards rates that are more in keeping with non-inflationary or potential economic growth. This would allow for a gradual reduction in the output gap (Table 12). Estimated potential growth was increased for this report and is now thought to be between 5.5% and 6.0%.

Even so, non-tradable inflation is expected to exceed total inflation by the end of 2008 and would stay relatively high at the beginning of 2009. This considers the fact that monetary policy takes six quarters to have an impact on inflation.

Non-tradable inflation will remain relatively high in 2008 and early 2009.

Bearing in mind the measures the Board of Directors adopted with respect to marginal reserve requirements, the forecasts for the output gap and non-tradable

In 2008, the increase in credit is expected to ease along with the increase in local demand and GDP.

inflation assume that monetary policy will pass through to lending rates faster than was predicted in earlier reports. Those measures tend to raise lending rates more than deposit rates, widening the margin spread. This, in turn, can diminish the impact monetary policy should generate through policy interest rates.

Furthermore, the pass-through mechanism normally assumes credit growth is consistent with the rise in GDP. Therefore, in this report, it is assumed the increase in credit will continue to ease along with local demand and GDP.

In summary, the total inflation forecast for 2008 is not significantly different in this report, although it does include changes in the different components that offset one another. Non-food inflation is expected to decline slowly during the coming year and to end the fourth quarter at 4.0%. This is similar to the forecast in the June report (4.1%). Total consumer inflation will follow the same pattern during the first half of the year, but might see a slight surge during the second half, due to perishable food prices. The prediction for the fourth quarter is 4.3%, which is slightly above the previous forecast (4.1%) (Table 12).

2. Risks

The central scenario outlined in the previous sections faces risks in both directions:

The upward risks:

- Consumption could increase more than expected. This, in turn, could create demand-pulled inflation pressure in the coming quarters. The central forecast assumes the growth in household consumption will be more moderate, which has not been the case up to now. Moreover, reports on retail sales and consumer confidence suggest the strong momentum in consumption will continue.

- Although wages do not appear to be a source of inflation pressure as yet, they could be in the future, considering the rapid growth in employment and the drop in the unemployment rate during recent months, especially in urban sectors.

Oil prices above US$90 a barrel for several months could cause higher inflation in 2008 than expected.

- If oil stays above US$90 a barrel (WTI), local fuel prices will have to be adjusted more than is anticipated in the central scenario. Transport prices could be affected as a result, which is a possibility not fully contemplated in this report.

- Higher oil prices, in turn, pose more of an upward risk to prices for the foods Colombia imports (i.e., cereals and oil-seeds) than is contemplated in the central inflation forecast. Clearly, high oil prices have done much to raise the demand for bio-fuels, which has affected food prices.

Inflation expectations still pose a risk in terms of meeting the inflation targets.

- Expectations for inflation are still above the target for this year and could stay there if inflation does not drop soon. Consequently, at this point, wage negotiations and the change in many prices compared to past years could play a more predominant role. In the past, keeping inflation on target has done much to reduce inflation. Moreover, 2007 could be the first year since 1997 when inflation at the end of the year is higher than at the end of the previous year.

- The winter weather that has affected Colombia since late October could have a negative impact on food supply. It could mean that prices for perishables by the end of the year would be higher than anticipated in this report. However, as in the past, these increases would be temporary.

The downward risks:

- The models might be underestimating the speed of the economy's response to the interest rate hikes. The measure adopted several months ago on bank reserves could reinforce pass-through by widening the interest spread more than is forecast in this report. This tends to increase the effect monetary policy has on the economy.

- The existence of a smaller gap than was estimated for the last report is not being ruled out entirely (e.g., as result of having underestimated the role of strong investment in recent years). In this case, some baskets, particularly non-tradables excluding food and regulated prices, could show less inflation during the rest of 2007 and particularly in 2008, compared to the central forecast.

Instability on international financial markets due to the mortgage market crisis in the United States and other countries, and the problems it has created for the financial derivatives market, is a situation that continues to add to the uncertainty surrounding these forecasts. If these problems worsen and spill over into other segments, as seems to have happened in past weeks, the consequences for growth in the United States and other countries could be affected more seriously than predicted in this report. In that case, the impact on Inflation in Colombia would be more complex and could imply risk in both directions, depending how hard hit external demand, terms of trade, capital flows and the exchange rate might be.

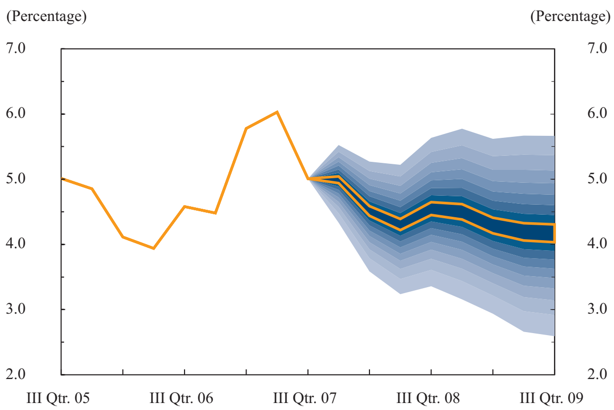
There is more uncertainty because of the problems facing the world financial markets.

.

Graph 35 shows the condensed risk balance in a fan chart and the attached probability table. Implicit in the results is a monetary policy designed to ensure the long-term targets for inflation are met. On the whole, the fan chart shows an upward biased risk balance, reproducing some of the risks mentioned earlier. The external situation has introduced more uncertainty.

Graph 35

Inflation Forecast Probability Distribution (Fan Chart) [a/]



Accumulated Probability of Consumer Inflation for the Indicated Range

Inflation Ranges (%) (%)	Probability (%)	
	December 2007	December 2008
Above 5.5	11.0	15.5
Below 5.5	89.0	84.5
Below 5.0	50.7	69.9
Below 4.5	11.1	50.0
Below 4.0	0.7	28.4
Below 3.5	0.0	11.5
Below 3.0	0.0	3.2

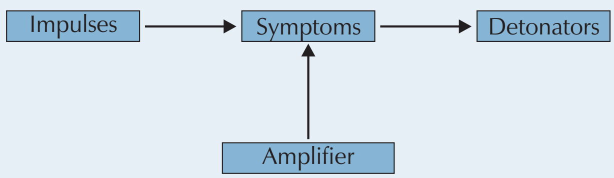
a/ The forecasts are based on a monetary policy designed to ensure compliance with the long-term targets for inflation.
Source: Banco de la República's calculations.

Characterization of Economic Cycles in the Colombian Case*

Luis Eduardo Arango
Fernando Arias
Luz Adriana Florez
Munir Jalil

At a recent conference, the Governor of Banco de la República (Uribe, 2007) described the anatomy of economic cycles as a combination of impulses, symptoms, detonators and amplifiers (Figure B2.1).

Figura B2.1
The Anatomy of Economic Cycles



The impulses are what generate the cycles, the symptoms are the data that reveal the vulnerabilities, the amplifiers are the factors that produce unsustainable results on the basis of favorable impulses, and the detonators spark a crisis by exposing those vulnerabilities. The purpose of this section is to review some of the characteristics associated with economic cycles, using the real economic cycles method (REC), so as to provide an initial description of the detonators in the Colombian case.

The literature on REC attempts to determine which of the recurrent fluctuations in economic activity can be attributed to real factors or productivity shocks. Normally, this is done by identifying the cyclical behavior of each of those factors (or variables), using a statistical filter such as the one developed by Hodrick and Prescott (1980) to calculate the correlations between the new series obtained with the filter and the GDP cycle. A series is understood as pro-cyclical if its contemporary correlation to output is positive, counter-cyclical if its correlation is negative and acyclical if the correlation is not significant. If the correlation between the series and future output is more than the contemporary correlation, the series is a leader.

The only variables presented in this section are those with more robust results; that is, the variables with a correlation coefficient above 0.5.[1] The first column in Table B2.1 indicates the classification of the series according to the correlation coefficient; the second shows the number of quarters in which each variable leads the GDP. The third contains the correlation sign. In this respect, series such as those for private and public investment, imports, consumption, industry, commerce, monetary aggregates and the loan portfolio

* This section is part of a document by L. E Arango, F. Arias. L. A. Florez and M. Jalil entitled "Cronología de los ciclos de negocios recientes en Colombia," Borradores de Economía, No. 461, Banco de la República, 2007.

The positions occupied by the authors, in that order, are chief researcher, Research Unit intern, Inflation Section expert and Research Unit investigator. The opinions expressed herein are their responsibility and imply no commitment on the part of Banco de la República or its Board of Directors.

[1] The series can be seen in detail in Arango *et al. op. cit.*

showed correlation coefficients with the GDP cycle above 0.5. Accordingly, they are defined as pro-cyclical. These results coincide with the evidence observed internationally.[2]

Only the unemployment rate was counter-cyclical, which is consistent with what theory suggests (e.g. theory on real economic cycles). M1 aggregate and public consumption were the only lead variables found. The first leads GDP with a positive sign one quarter; the second leads for eleven quarters, but with a negative sign. The latter would imply that an increase in public spending causes a drop in GDP eleven quarters down the road.

Table B2.1
Regularities in Cycles in Colombia

Variable	Characteristic	Quarter	Cross Correlation Sign	International Evidence (Arango and Castillo, 1997)
Investment	Pro-cyclical **	0	Positive	Pro-cyclical
Private GFCF	Pro-cyclical **	0	Positive	
GFCF in machinery and equipment	Pro-cyclical **	0	Positive	
Public GFCF	Pro-cyclical **	0	Positive	
Imports	Pro-cyclical **	0	Positive	
Private consumption	Pro-cyclical ***	0	Positive	Pro-cyclical
Non-durable goods	Pro-cyclical ***	0	Positive	Pro-cyclical
Semi-durable goods	Pro-cyclical ***	0	Positive	Pro-cyclical
Services	Pro-cyclical **	0	Positive	Pro-cyclical
Durable goods	Pro-cyclical ***	0	Positive	Pro-cyclical
Public consumption	Leader **	11	Negative	
Industry	Pro-cyclical ***	0	Positive	
Commerce	Pro-cyclical ***	0	Positive	
Transport and communications	Pro-cyclical **	0	Positive	
Unemployment rate (seven cities)	Counter-cyclical**	0	Negative	
Real used IPV	Pro-cyclical **	0	Positive	
M1	Leader **	1	Positive	No pattern
M3	Pro-cyclical **	0	Positive	No pattern
Total net loan portfolio	Pro-cyclical **	0	Positive	

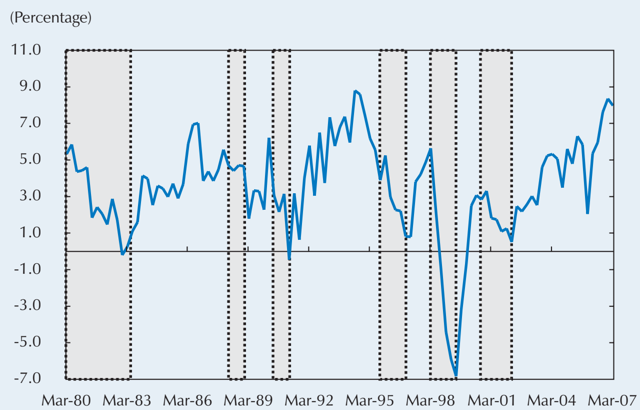
Note: ** means the correlation coefficient is between 0.5 and 0.7. *** Coefficient above 0.7.
Source: Taken from Arango *et al.* (2007).

Are the recession detonators similar?

Another exercise to complement the foregoing is used to identify the detonators of Colombian crises in the past and whether or not they repeat themselves over the course of time. This exercise was done only for recessions, as the authorities consider it more relevant to be able to anticipate them and to make well-timed policy decisions. According to The National Bureau of Economic Research (NBER), business cycles are defined as the absolute upswings and downturns in certain variables that are representative of economic activity during a period of at least two quarters. This implies estimating the fluctuation periods based on their levels of performance. To accomplish this, the NBER relies on a wide variety of economic indicators, coupled with the judgment and intuition of each member of the committee when it comes to identifying the turning point. The cycles found for the Colombia case, based on the NBER definition and using the Bry and Boschan method, are shown in Graph B2.1 (see Arango *et al*.. *op. cit*.). The turning points are marked with dotted lines. The upswing zones are in blue and the slowdown-recession zones are in gray.

2 According to Arango and Castillo (1997), investment and consumption are procyclical for some countries, although there is no clear pattern for monetary aggregates.

Graph B2.1
Annual GDP Growth and Phases in the Economic Cycle



Source: Taken from Arango *et al.* (2007).

The dates identified for the recessions, *op. cit,* were used for this exercise, and we tried to observe how the variables behaved one year before. The following periods were found:
April 1990 to March 1991; October 1995 to December 1996; March 1998 to May 1999, and August 2000 to March 2002. For the sake of brevity, only two of these episodes will be presented: April 1990 to March 1991 and May 1998 to August 1999. Most of these variables are shown in the form of annual growth rates. However, the capital flows and the current account are presented in millions of dollars to make them easier to analyze, given the volatility of the series.

In the case of the recession period from April 1990 to March 1991, we find that public consumption, public investment, base money, building permits, international prices (especially for coffee) and the United States GDP deteriorated several months before the economy began to slowdown (Table B2.2).

Table B2.2
Recession Phase: II-1990 to I-1991
State of the Variables One Year before the Slowdown Stage

Variables	II-1989	III-1989	IV-1989	I-1990	II-1990
GDP (annual %)	3.71	4.19	3.54	6.29	3.68
Public consumption (annual %)	8.61	6.01	2.87	(0.84)	2.23
Investment (annual %)	(5.90)	(0.71)	(5.26)	4.23	(6.64)
Public investment (annual %)	(8.34)	(11.28)	(16.04)	(2.22)	(17.32)
Construction (Annual %)	(2.98)	(5.71)	(12.12)	(3.40)	(19.36)
Terms of trade (index)	95.05	81.15	81.48	89.17	87.08
RERI (index)	107.39	112.86	116.53	120.80	123.66
Real TCD rate (annual %)	9.30	8.51	7.91	7.25	7.51
Annual inflation (annual %)	24.44	25.33	26.60	27.16	28.41
Base (annual %)	8.53	7.89	(2.01)	(6.26)	(7.12)
Building permits (annual %)	(0.74)	(1.22)	(7.01)	(7.23)	(5.76)
Real price of coffee (index)	52.25	44.47	30.76	27.61	32.32
Real price of oil (index)	52.80	52.80	51.79	55.59	51.36
United States GDP (annual %)	3.57	3.75	2.66	2.80	2.40

Source: Taken from Arango *et al.* (2007).

In the case of the recession from March 1998 to May 1999, we see that public consumption, base money, short and long-term capital flows and the price of oil deteriorated several quarters before the economy began to slow down. Capital flows played a decisive role in the economic crisis (Table B2.3).

Table B2.3
Recession Phase: I-1998 to II-1999
State of the Variables One Year before the Slowdown Stage

Variables	I-1997	II-1997	III-1997	IV-1997	I-1998
GDP (annual %)	0.80	3.81	4.22	4.88	5.65
Public consumption (annual %)	18.89	17.72	15.17	11.22	5.50
RERI (index)	84.65	82.28	85.77	94.28	93.15
Real TCD rate (annual %)	6.11	5.25	5.05	6.09	7.48
Annual inflation (annual %)	19.70	18.60	17.95	17.77	18.38
Base (annual %)	(13.23)	(9.33)	(4.35)	3.33	2.01
Current account (millions of dollars)	(1,201.17)	(1,318.31)	(1,522.14)	(1,709.25)	(1,711.36)
Long-term flows (millions of dollars)	2,626.54	1,964.86	1,419.39	2,337.33	1,016.74
Short-term flows (millions of dollars)	(814.74)	(511.07)	457.81	(892.62)	(2.53)
Real price of oil (index)	50.88	40.56	40.00	41.64	34.66
United States GDP (annual %)	4.49	4.37	4.79	4.34	4.69

Source: Taken from Arango *et al.* (2007).

It is possible to conclude, on the basis of this exercise, that public consumption, terms of trade (especially coffee and oil prices), the United States GDP, capital flows and monetary aggregates in most of the periods analyzed slowed several quarters before the drop in output. Other variables such as stocks, the total loan portfolio and building permits also registered declines in two of the four periods analyzed.

Although the conditions in each recession are different, in a small, open economy like the one in Colombia, changes in external conditions are more likely to be the relevant factors that lead to a recession, as was found in most of the exercises. These results are consistent with what Fernández and González (1999) indicated.

Reference List

Arango. L. E.; Arias. F.; Flórez. L. A.; Jalil. M. "Cronología de los ciclos de negocios recientes en Colombia" in *Borradores de Economía* No. 461, Banco de la República, 2007.

Arango. L. E.; Castillo. M. "¿Son estilizadas las regularidades del ciclo económico? Una breve revisión de literatura" in *Borradores de Economía* No. 115, Banco de la República. 1997.

Fernández. C.; Gonzaléz. A. "Integración y vulnerabilidad externa en Colombia" in *Borradores de Economía* No. 156, Banco de la República, 2000.

Hodrick. R.; Prescott. E. "Postwar Business Cycles: An empirical investigation." Working document No. 451, Carnegie Mellon University, 1980.

Uribe. José Darío. "Globalization and Colombia's Policy Framework," Speech given at the Lacea-Lames Meeting in Bogotá, 2007.

Macroeconomic Forecasts by Local and Foreign Analysts

The following are the latest forecasts by local and foreign analysts with respect to Colombia's main economic variables in 2007 and 2008. When consulted, the analysts had access to data at September 2007.

I. Forecasts for 2007

The favorable situation depicted by the economic indicators for supply and demand in the Colombian economy was reflected in an upward adjustment in the forecasts for economic growth during 2007. Use of installed capacity is high, as is the increase in credit. The Fedesarrollo Consumer Confidence Index is near its historic maximum, suggesting that private consumption would continue to grow at a good pace. Accordingly, with respect to the last quarter, the analysts raised their forecast for growth this year: the local analysts expect 6.3% economic growth (18 bp more) and the foreign analysts anticipate 6.5% (9 bp more) (Table A1).

As to inflation, the local analysts predict it will drop by 8 bp to 5%, while the foreign analysts expect an increase of 9 bp to 5.2%. As was the case last quarter, these rates are above the target range for inflation this year (between 3.5% and 4.5%).

Table A1Forecasts for 2007Proyecciones para 2007

	Real GDP Growth (%)	CPI Inflation (%)	Nominal exchange rate (end of)	Nominal DTF (%)	Fiscal Deficit (% of GDP)	Unemployment Rate: 13 cities (%)
Local Analysts						
Alianza Valores	5.2	4.8	2,069	8.0	0.5	11.5
Anif	6.7	5.2	n.a.	n.a.	0.7	n.a.
Banco de Bogotá	6.6	5.0	1,950	8.7	0.5	11.0
Banco Santander	6.8	5.0	2,068	8.7	0.7	11.4
BBVA Colombia	6.4	5.1	2,063	9.3	0.9	10.8
Corficolombiana-Corfivalle	6.0	4.7	2,330	9.2	n.a.	n.a.
Corredores Asociados	6.0	5.0	1,950	8.7	1.0	11.0
Correval	6.6	5.1	2,000	8.8	0.6	11.0
Fedesarrollo	6.4	5.0	2,060	9.0	0.7	n.a.
Average	**6.3**	**5.0**	**2,061**	**8.8**	**0.7**	**11.1**
Foreign Analysts						
Bear Stearns	6.9	4.9	1,950	9.1	0.0	9.5
Citi Bank	6.7	5.0	2,050	9.3	1.8	10.6
CS First Boston	6.0	5.1	2,040	n.a.	0.9	n.a.
Deutsche Bank	6.5	5.5	2,284	n.a.	0.9	n.a.
Goldman Sachs	6.1	5.1	2,000	n.a.	0.7	n.a.
J.P. Morgan Chase	6.8	5.5	2,000	n.a.	0.7	n.a.
Average	**6.5**	**5.2**	**2,054**	**9.2**	**0.8**	**10.1**

n.a. not available.
Source: Banco de la República, based on data supplied electronically.

The forecasts for the exchange rate remained stable. The average expected for the end of the year is Col$2,058. This would amount to 8.8% annual appreciation at December 2007. Maximum projected depreciation is 3.9% (Col$2,330) and the minimum is -14.8% (Col$1,950 per dollar). This reflects the tremendous uncertainty in the markets with respect to the future of this variable, a fact that is confirmed by the recent volatility in foreign exchange.

With respect to the DTF, the analysts raised their forecast 17 bp compared to the last quarter and expected it to end the year at 8.9%. This forecast might suggest they do not expect major hikes in the inter-bank rate (TIB) during the remainder of the year. The forecast for the consolidated fiscal deficit is 0.8% of GDP, on average, which is less than the last projection by CONFIS (0.9% for the consolidated public sector). As to the unemployment rate, analysts expect the reductions in the DANE measurements in recent months to hold and set their forecast at 10.8%.

II. Forecasts for 2008

The forecasts for economic growth in 2008 were raised slightly to 5.2 % (Table A2). Inflation is expected to average 4.2%, which is above the range in which the mid-point for target inflation that year will be set (between 3% and 4%). The average forecast for the exchange rate is 4.7% annual devaluation compared to the forecasts at the end of 2007. In other words, the representative market rate (TRM) would be around Col$2,160.

Table A2
Forecasts for 2008

	Real GDP Growth (%)	CPI Inflation (%)	Nominal exchange rate (end of)
Local Analysts			
Alianza Valores	n.a.	n.a.	n.a.
Anif	5.5	4.3	n.a.
Banco de Bogotá	5.0	4.5	2,050
Banco Santander	5.3	4.5	2,203
BBVA Colombia	4.9	4.0	2,158
Corficolombiana-Corfivalle	5.5	4.2	2,400
Corredores Asociados	5.0	4.1	2,145
Correval	5.5	4.5	2,040
Fedesarrollo	5.7	4.2	2,163
Average	**5.3**	**4.3**	**2,166**
Foreign Analysts			
Bear Stearns	5.7	4.0	2,050
Citi Bank	n.a.	n.a.	n.a.
CS First Boston	5.0	4.0	2,100
Deutsche Bank	5.7	3.6	2,415
Goldman Sachs	4.0	3.8	2,120
J.P. Morgan Chase	5.5	4.4	2,075
Average	**5.2**	**4.0**	**2,152**

n.a. not available
Source: Banco de la República, based on data supplied electronically.